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THE UNIVERSITY  
of EDINBURGH

Annual Review 2016/2017



The cover shows the recently refurbished McEwan Hall.

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# Principal's foreword



The University's *Annual Review* always provides a welcome opportunity to step back and take stock of another year in the life of our great institution.

As I prepare to demit office I am struck by the sheer variety and scope of the work that we carry out, thanks to the diligence, dedication and innovation of our staff, students, alumni and supporters.

This year's edition is no exception, showcasing as it does our influence and impact both locally, nationally and globally.

As we play such an important part in the life of the city of Edinburgh, we are enormously aware of our responsibilities as a neighbour, and as a custodian of some of the great buildings we are fortunate enough to inhabit. In this year's *Review* we focus on our

£35-million refurbishment of the magnificent Grade A-listed McEwan Hall, and our redevelopment of St Cecilia's Hall and the Pleasance complex – as well as our plans for creating the Edinburgh Futures Institute on the site of the Old Royal Infirmary.

The University brings much to the artistic life of the Scottish capital and beyond. I am proud that this year we highlight the work of colleagues at the world-famous Venice Biennale with contributions from our distinguished alumna Rachel Maclean, Edinburgh College of Art, the Centre for Research Collections and the University's Talbot Rice Gallery.

We are a truly international university and that is reflected in many ways. In this publication we examine our global outlook using a number of examples: with the launch of our Institute for International Cultural Relations, with our efforts to bring computer technology to schools in sub-Saharan Africa, and with some of the ground-breaking cross-border research being carried out by our early-career academics.

The quality of our research and innovation at all levels is something that really sets Edinburgh apart. The research projects which our staff and students lead on are both fascinating and inspiring, generating headlines around the world. Here we delve

into just two which have been selected from very many: the team from the School of Chemistry which has discovered a new way to recover gold from electrical devices such as mobile phones; and the students working to design and build a futuristic travel system known as the Hyperloop.

We live in challenging yet exciting times and at the University we are particularly excited by the promise for the future being delivered by the signing of the Edinburgh and South East Scotland City Region Deal. As a signatory, the University will play a key part in turning our region into the data capital of Europe. In this edition of the *Review*, you can read in detail about our plans to make this vision a reality.

After 15 years at the helm, it is gratifying for me personally to reflect on what excellent shape we as an institution are in. That is thanks to the efforts of our staff, students, alumni and supporters worldwide. I have every confidence that the University will continue to go from strength to strength in the years to come.

**Professor Sir Timothy O'Shea**  
BSc, PhD, FRSE  
Principal and Vice-Chancellor  
The University of Edinburgh

*Tha Lèirmheas Bhliadhna an Oilthigh* daonnan na dheagh chothrom gus ceum a ghabhail air ais agus a bhith a' cnuasachadh air bliadhna eile ann am beatha na buidhne cudromaich seo.

Agus mi ag ullachadh gus an oifis agam fhàgail, tha e a' tighinn a-steach orm cho farsaing is cho diofraichte 's a tha an obair a nì sinn san oilthigh, mar thoradh air an dicheall is tionnsgalachd aig an luchd-obrach, oileanaich, alumni agus luchd-taic againn.

Chan eil lèirmheas na bliadhna seo eadar-dhealaichte, agus e a' taisbeanadh na buaidh agus na buil a bh' againn gu h-ionadail, gu nàiseanta agus air feadh an t-saoghail.

A chionn 's gu bheil sinn cho cudromach ann am beatha baile Dhùn Èideann, tha sinn gu math mothachail air an dleasan a th' againn mar nàibaidh agus mar an luchd-glèidhidh aig cuid de na toglaichean cudromach a tha sinn fortanach a bhith a' cleachdadh. Ann an *Lèirmheas* na bliadhna seo, tha fòcas againn air an obair ath-nuadhachaidh £35-millean againn air togalach àlainn Talla MhicEòghainn, a tha air a' chlàradh aig Ìre-A, agus air an ath-leasachadh a tha sinn a' dèanamh air Talla Naomh Cecilia agus àrainn a' Phleasance – cho math ris na planaichean a th' againn airson a bhith a' cruthachadh Institiud Dhùn Èideann son an Àm ri Teachd air làrach an t-Seann Ospadail Rìoghail.

Tha an t-Oilthigh a' cur tòrr ri saoghal nan ealain ann am prìomh bhàile na h-Alba agus nas fhaide air falbh. Tha mi moiteil gu bheil sinn a' toirt sùil am-bliadhna air obair nan co-obrach againn aig Venice Biennale, a tha ainmeil air feadh an t-saoghail, le fiosrachadh ann bhon t-seann oileanach chliùiteach againn Rachel NicIleathain, bho Cholaiste Ealain Dhùn Èideann, bho Aonad nan Cruinneachaidhean Rannsachaidh agus bho Ghailearaidh Talbot Rice an Oilthighe.

'S e oilthigh a th' annainn a tha fìor eadar-nàiseanta agus chithear sinn ann an iomadh dòigh. Anns an sgrìobhainn seo, bheil sinn sùil air an t-sealladh chruinneil againn a' cleachdadh grunn eisimpleirean: bogadh na h-Institiud againn airson Dàimhean Cultarach Eadar-nàiseanta, na h-oidhirpean againn gus teicneòlas coimpiutair a thoirt do sgoiltean ann an sgoiltean sub-Sahàrach, agus fios mu chuid den rannsachadh tar-chrìche tionnsgalach a tha cuid de na sgoilearan againn a' dèanamh aig Ìre thràth sa chùrsa-obrach aca.

Tha càileachd an rannsachaidh is an tionnsgalachd aig gach ìre a' cur Oilthigh Dhùn Èideann air thoiseach air càch. Tha na pròiseactan a tha an luchd-obrach is na h-oileanaich againn a' stiùireadh an dà chuid fìor inntinneach agus brosnachail, agus iad a' faighinn iomraidhean sna cinn-naidheachd air

feadh an t-saoghail. An seo, bheil sinn sùil air dìreach dà dhiubh seo, a tha air an taghadh bho fharsaingeachd de phròiseactan: air sgioba bho Sgoil na Ceimigeachd a tha air dòighean ùra a lorg gus òr fhaighinn air ais bho innealan dealain mar eisimpleir fònaichean-làimhe – agus air oileanaich a tha ag obair gus siostam còmh-dhail ùr-nodha a dhealbhadh is a thogail air a bheil an Hyperloop.

'S e àm dùbhlanaich ach brosnachail a tha seo agus aig an Oilthigh, tha sinn a' coimhead air adhart gu sònraichte ris na cothroman san àm ri teachd a tha an lùib soidhneadh Aonta Sgìre Baile-mòr Dhùn Èideann agus Ear-dheas na h-Alba. Mar soidhniche, bidh pàirt nach beag aig an Oilthigh ri cluich gus prìomh bhàile dàta na Roinn Eòrpa a dhèanamh den roinn againn. Anns an tionndadh seo den *Lèirmheas*, is urrainn dhut leughadh ann am mion-fhiosrachadh mu na planaichean againn gus an sealladh seo a thoirt gu buil.

Às dèidh 15 bliadhna aig an stiùir, tha e toirt tlachd dhomh gu pearsanta cnuasachadh air an deagh chor a th' againn mar bhuidhinn. Tha seo mar thoradh air oidhirpean an luchd-obrach, oileanaich, alumni agus luchd-taic againn air feadh an t-saoghail. Tha mi làn chinnteach gun lean an t-Oilthigh air a' dol bho neart gu neart anns na bliadhnaichean ri teachd.





## Vision

We deliver impact for society.

As a truly global university, rooted in Scotland's capital city, we make a significant, sustainable and socially responsible contribution to the world.

## Mission

We discover, develop and share knowledge.

As a centre of academic excellence we aim to:

- provide the highest-quality research-led teaching and learning;
- challenge the boundaries of knowledge, research and disciplines;
- enable our graduates and staff to be exceptional individuals equipped to address global challenges;
- promote good health, economic growth, cultural understanding and social well-being.

# Revitalising a treasured symbol of civic pride

The University's McEwan Hall is a fine example of its commitment to investing in Edinburgh's cityscape and heritage.

When William McEwan donated £115,000 to the University in 1886, it was the largest single donation the University had ever received, and it sparked the creation of a magnificent landmark that would host public events and graduation ceremonies for generations to come.

In 2015, the doors to the McEwan Hall were closed to restore the Grade A-listed building back to its original glory. The £35million refurbishment took place over two years, with the Hall reopening in summer 2017 to the great excitement of staff and students alike, and to the great pleasure of graduating alumni, their parents and friends.

As well as making critical structural improvements, the windows, stonework and frescos were conserved, and the building was updated to meet modern-day accessibility requirements. While the University made a significant contribution from its own funds, alumni and donors played an important role in this chapter of the building's story.

For Mr Chris Cox, Vice-Principal Philanthropy and Advancement, the spirit in which the original donation was made, strikes a chord with generous donors today: "William McEwan was the MP for Edinburgh Central and had huge pride in the city and the University," he says. "McEwan saw universities as places where people from all walks of life could convene. This is as important today as it was then. Swingeing funding cuts in the mid-19th century meant that to build this wonderful civic building, the University really needed the generous support of benefactors."

Fortunately the University's secure financial position today enabled it to contemplate this major renovation. However, without the generosity of University benefactors the completed upgrade may not have had the same impact.

A campaign entitled Pathways to Enlightenment was launched in early 2016. To honour the original benefaction, alumni were invited to make a gift of £115, and in return, their name was inscribed on a tile, used within the newly restored building.

“McEwan saw universities as places where people from all walks of life could convene. This is as important today as it was then.”

Mr Chris Cox

The response to the campaign was unprecedented, with more than 1,700 alumni from more than 50 countries contributing to the redevelopment. For Mr Cox the participatory nature of the campaign was important: "It was about finding a way in which hundreds, and eventually thousands, of alumni could connect themselves to this historic building, which clearly means so much to so many people."

Current students were also at the heart of the redevelopment. A competition was held for third-year art students to design the tiles that would recognise donors' contributions. Inspired by images held in the University's research collections digital archive, the winning undergraduates – Lizzie Bevington and Despina Petridou – proposed an innovative concept that represented people and ideas moving through the University.

The University's Art Collections Curator, Mr Neil Lebeter was closely involved in the project and saw the commission of students' work as being the ideal way for the University to support emerging artists.

"As well as thanking our donors in a thoughtful and unique way, commissioning young artists talks to the future, as well as referencing the history of the institution," says Mr Lebeter. "Lizzie and Despina did an amazing job. To be involved in such a major project was fantastic work experience for them."

Architectural Conservation students were also given the opportunity to work alongside specialist conservators at the highest reaches of the Hall; learning how to clean and renovate the original murals. Anushka Desouza was one of the students to take part: "Working on the building helped me to implement the techniques learnt in the classroom," she says. "It definitely enhanced my experience of studying at Edinburgh. It was an opportunity that I wouldn't have found anywhere else, and I feel like I'm a part of the fabric of this historic building."

McEwan Hall is one of many landmarks on Edinburgh's skyline that the University has committed significant investment to restore, maintain and improve.

Work is to begin shortly on the Grade A-listed Old Royal Infirmary. The former city-centre hospital was purchased by the University in 2015, after it lay vacant for more than 12 years. Due to reopen in 2021, it will be home to the Edinburgh Futures Institute, creating new teaching, research and public spaces.

The Pleasance complex plays host to a great variety of student societies, as well as becoming a busy hub during the annual Festival Fringe. The University has worked closely with the Students' Union to improve and extend facilities and maximise space over the past year.

St Cecilia's Hall – Scotland's oldest purpose-built concert venue – reopened in May 2017, after a £6.5 million redevelopment. The concert room and music museum situated in the Old Town is open to the public from Tuesday to Saturday, after previously opening at sporadic times, and the renovation has also brought about a lively programme of concerts and events for the local community to enjoy.

"Our musical instrument collection is highly renowned worldwide," says Ms Jacky MacBeath, the University's Head of Museums. "Now we have facilities that match the quality of our collection and expertise of our staff. And the response we've had from the local community since reopening has been wonderful."

The University's commitment to having a strong relationship with the people of Edinburgh through these visionary yet accessible refurbishment projects fills Mr Cox with optimism. He concludes: "It's wonderful that the University is investing so much into developing this network of inspiring spaces – giving enormous benefits to our students and alumni – and the city of Edinburgh as a whole."



Mr Chris Cox

# Nurturing cultural relations across institutions

The University is home to a diverse range of cultures and nationalities across student, staff and academic spheres. Launched in January 2017, the Institute for International Cultural Relations aims to bring these groups and cultures together, both in academic and social circles throughout the University and beyond.

The Director of the Institute, Professor JP Singh, joined the University in 2016. A prize-winning author and former adviser to UNESCO, the World Bank and the World Trade Organization, Professor Singh believes a greater interdisciplinary approach to research and collaboration is required, if Edinburgh is to expand the impact of its expertise to a global audience.

"Culture is who we are and how we think of ourselves," says Professor Singh. "There are many people at the University and beyond who work on different topics but use culture as a lens. The Institute for International Cultural Relations aims to bring these people together and foster research and education in terms of how we think of ourselves across borders."

For Professor Singh, several things stand out about education in the future: "We will have to solve issues that can't be categorised by discipline," he explains. "For example, the refugee influx into Europe is a public health issue, a human rights issue, a legal issue and a diplomatic issue. It will take an interdisciplinary approach to help solve it."

He also believes that universities must continue to adapt in order to deliver world-leading education and research: "I've been living in the US for the past 34 years, but I grew up in a remote area in India. When people came from big universities to lecture to us, we didn't listen. So I'm always trying to find a way to connect the Institute to all types of communities and people from different backgrounds."

Professor Singh has been working with a number of schools across the University to design cutting-edge online programmes, including the planning of an online masters in international cultural relations.

The Institute has already presented a range of events in the UK and abroad. One such initiative was the Institute's Global Cultural Fellows programme, which worked with a

“ I’m always trying to find a way to connect the Institute to all types of communities and people from different backgrounds.

Professor JP Singh

number of international groups to bring 33 cultural experts to Edinburgh for the 70th year of the Edinburgh festivals in the summer of 2017.

"The programme was a resounding success," says Professor Singh. "It really resonated with people. I can't believe the number of times so many of the Fellows have said that this was one of the most transformational experiences of their life."

The diverse group included a dancer from Cambodia, the head of the National Theatre of Nigeria, an Australian opera singer, a Malaysian chef, and a magazine editor from Sweden. Over eight days the group met to discuss international cultural relations and specific issues before attending shows at the various festivals.

"We invited cultural activists from around the world, who are strongly connected to their communities, to think about specific cultural issues," explains Professor Singh. "The experience had a profound impact on many of them and made them think of the world differently. Over the next year, the Fellows will undertake projects of their own choosing, which help them connect their Edinburgh experience with their communities, and of course, they now have a global network that they can rely on."

The Institute has also been forging close relations with cultural partners. Professor Singh noted the invaluable input of the Edinburgh festivals to the Global Cultural Fellows programme: "We worked closely with various festivals to design the programme, taking in shows at the Book Festival, the Festival Fringe and the Edinburgh International Festival, which spawned further conversation and research. Integral to this activity was the input of our Visiting Professor Faith Liddell."

As the founding Director of the organisation Festivals Edinburgh, Professor Liddell led on the development of Edinburgh's twelve major festivals. The Global Cultural Fellows

programme was one of her first projects in her new role with the Institute: "I had collaborated with a number of people in the University, in my role with Festivals Edinburgh," explains Professor Liddell. "But when Vice-Principal Dorothy Miell suggested becoming a Visiting Professor I was delighted. The Institute feels like a natural home."

The individual Global Cultural Fellows came from across the world, clearly with different and distinctive perspectives. They included people working on the frontline in conflict resolution, in community initiatives, in culture-led regeneration as well as radical artists pushing the boundaries of practice. For Professor Liddell, understanding international cultural relations is critical in the current environment: "Shared understanding of cultural interests and values across nations has been put into question," she says. "Innovative approaches to developing and informing cultural practices are essential to bridging divides."

Professor Singh also believes that culture is at the heart of many of the world's most important issues. Therefore the city, the University and the Institute are ideally placed to bring together individuals, ideals and disciplines of contrasting natures in order to connect research, politics and communities. The Institute will have the opportunity to explore this concept further as one of several key research groups within the University's new Edinburgh Futures Institute – a visionary hub where experts can transcend boundaries and join forces in response to global cultural, technological, political, social and managerial challenges.

"The past year in Edinburgh has provided a deeply meaningful and exciting opportunity to make an institutional mark in international cultural relations," states Professor Singh. "We've had great support from the Scottish and Westminster governments, from the Edinburgh festivals and from people all over the world, and to feel that you are really making a difference in the world, as an institute, really resonates so much."

Professor Faith Liddell and Professor JP Singh





# Tapping into a greener goldmine

By developing a new way of recycling gold from electrical devices, researchers in the University's School of Chemistry are part of wider efforts at Edinburgh to make a sustainable and socially responsible contribution to society.

In 2017, a team led by Professor Jason Love revealed a new way of recovering gold from circuit boards used in electronics including televisions, computers and mobile phones.

Methods currently used to recover the precious metal are often inefficient or reliant upon toxic chemicals such as cyanide. Improving these recycling processes could help to cut carbon dioxide emissions and reduce the need for gold mining, a practice harmful to the environment. Seven per cent of the world's gold is inside waste electronics and of that only 30 per cent is currently salvaged.

"As a society, we need to recognise that we have limited resources and that we can't keep consuming these if we don't have a way of returning them back to a useful state," states Professor Love. "We have to think about how we can develop better ways of recycling, and we're interested in the chemical aspects of how we do that."

With an estimated 300 grams of gold present in every tonne of electronics, Professor Love and his team set out to develop a more sustainable and environmentally friendly approach that could allow for greater quantities of gold to be recycled. They formulated a new chemical reagent to use in a process called solvent extraction, which is used widely for the recovery of metals from ores. Compared to other methods such as smelting – which uses extremely high temperatures to separate mixtures of metals – solvent extraction is potentially a very environmentally friendly alternative.

"The solvent extraction process has existed for decades but as chemists we're trying to discover new and better reagents that recover metals more selectively," explains Euan Doidge, a PhD student in Professor Love's research group.

“As a society, we need to recognise that we have limited resources and that we can't keep consuming these if we don't have a way of returning them back to a useful state.”

**Professor Jason Love**

Using their new method, circuit boards are first placed in a mild acid to dissolve all their metal parts. An oily liquid containing the team's reagent is then added, which allows gold to be extracted selectively from the complex mixture of metals found inside electronics.

"Our reagent allows us to recover a very high purity of gold, explains Euan. "Normally, one molecule of reagent binds directly to one metal molecule. Our compound uses a different type of chemistry, and can bind to clusters of gold molecules instead of just one. This means you can use a lot less of it to recover the same amount of gold."

As a by-product of this research, Euan has enjoyed success in a science communication contest. After winning the University's 2017 Three-Minute Thesis heat, he was awarded the People's Choice award in the UK final. This has given him the opportunity to talk about his work at the world-famous Royal Institution, as well as enter into the Three-Minute Thesis international final.

As well as gold, the team is investigating ways of improving the recycling of other precious metals found in waste electronics, such as palladium, platinum, and rare earth elements like neodymium. New reagents could be developed to salvage these and common metals such as copper and tin.

There may also be the opportunity to extract toxic metals such as cadmium and lead, which can cause environmental issues that could, in turn, be prevented. The team is also interested in how chemistry could be used to recover plastics, not currently recycled, from mobile phones.

A big motivation for Professor Love and his team is the concept of the circular economy, which encourages reuse of materials and practising greater resource efficiency: "To develop a circular economy, we cannot

waste these valuable resources," says Professor Love. "If these materials could be recycled at the point of collection, it would provide lots of income to that local area. That doesn't happen at the moment."

In theory, the team's new method could help to facilitate this development, because it can be carried out on a relatively small scale, which could enable local set-up. However, in order to make progress on the development of circular economy initiatives, collaboration is essential.

"Our aim is to build a whole theme of work at Edinburgh around urban mining and waste recycling," explains Professor Love. "To do that we need more expertise in other areas, so we're working with colleagues in geosciences, engineering and social sciences."

Professor Love's team is also working with the organisation Closing the Loop, an Amsterdam-based company that aims to reduce electronic waste by collecting old phones in Africa and bringing them to Europe to be recycled.

This commitment to making a socially responsible contribution to society is echoed across the University. Mr Dave Gorman is Director of the Department for Social Responsibility and Sustainability, which was established in 2014 to underline the University's commitment to making a significant, sustainable and socially responsible contribution to the world. Mr Gorman believes that the many staff- and student-led initiatives at Edinburgh can help it deliver on this strategic ambition.

"Higher education institutions like Edinburgh can play a pivotal role in a transformation to a circular economy," he states. "The work being done by Professor Love and his team is a great example of the kind of cutting-edge research going on at the University to help bring about the adoption of circular economy initiatives."

Professor Jason Love



# Placing Edinburgh art on the international stage

In May 2017 a deconsecrated church in Venice housed a new work of art by Edinburgh alumna Ms Rachel Maclean, commissioned to represent Scotland at the renowned Venice Biennale.

Ms Maclean's 37-minute video, entitled *Spite Your Face*, was the focal point for a project that connected several important strands of the University to the Biennale. It marked a special alignment of students, staff, alumni, Edinburgh College of Art (ECA), the University's Centre for Research Collections and the University's contemporary art gallery, all working together – with significant external partners – to present on this most global of stages.

At 29, Ms Maclean is the youngest artist to be selected by Scotland + Venice, a partnership run by Creative Scotland, the National Galleries of Scotland and the British Council Scotland. Every two years Scotland + Venice selects an artist that best represents the country's contemporary art scene.

"It was a big surprise," says Ms Maclean. "I feel that I've been lucky. I owe a lot to Edinburgh and Scotland in terms of people having confidence in me when I was young."

Since leaving ECA in 2009, Ms Maclean's satirical, day-glow videos have startled critics and the public around the world. Her ability to weave major contemporary themes into her work made her a bold choice for the 2017 Biennale. *Spite Your Face* is a dark retelling of the Pinocchio story that plays upon the power of lies, populism and misogyny.

Every Biennale, Scotland + Venice also selects a Scottish-based curator to deliver the show. The University's Talbot Rice Gallery in partnership with the Hawick-based company Alchemy Film & Arts were chosen as commissioners of *Spite Your Face*. It was the first time the Gallery had been involved in the Biennale.

“ I feel that I've been lucky. I owe a lot to Edinburgh and Scotland in terms of people having confidence in me when I was young.

**Ms Rachel Maclean**

"Being part of Venice placed us on an international platform and inspires us to stay there," says the Gallery's Director, Ms Tessa Giblin. "Most people, rightly, talk about the impact Venice has on the artist. But we mustn't forget the enormous impact it has on the professionals working behind the scenes – the curators, project managers, technicians, marketing people, the publicists, the fundraisers. All those involved, in my experience, have gone through an enormous growth curve."

Ms Giblin, who joined the Talbot Rice Gallery in 2016, has been involved with the Biennale for the past 10 years. While other colleagues at the Gallery worked on Scotland + Venice, she was also commissioner and curator of the Irish pavilion. Working with the artist Jesse Jones, she describes it as "the hardest, most rewarding thing" she has ever done.

As well as providing an unprecedented platform for the University's alumni, its gallery and its staff, art students from ECA were also given a unique opportunity to experience the international festival.

Scotland + Venice's Professional Development Programme selected 15 students from across Scotland to invigilate *Spite Your Face* in Venice. The cohort included five fine art students from Edinburgh. The students stayed in Venice for a month at a time between May and November, working in pairs to manage the venue, Chiesa di Santa Caterina, in the northern Cannaregio district of the city. In addition, they acted as ambassadors for the project, the University and Ms Maclean's work. Gemma Batchelor, an ECA student taking part, says: "Because she [Rachel Maclean] came from ECA too, we definitely felt an ownership of the piece, and we felt great when people had a positive response to it."

The students also had time off to explore the Biennale and to develop their artistic practice. Evenings were spent connecting with representatives from the other pavilions, resulting in screenings, talks and life drawing sessions.

"I just feel really lucky," says fellow ECA student and invigilator, Siobhan McLaughlin. "I've never been out of Scotland for more than two weeks before. Since coming back, I've felt much more confident. I've applied for things I never would have thought about before. It has made the art world seem more accessible. I'm much less anxious now about life after university."

Ms Maclean also appreciates how the experience could offer promising futures for this next generation of artists: "The development programme is fantastic," she says. "The students I have met who are part of it are really brilliant and have done such an amazing job. I'm so excited for them. I'm looking forward to what they make, and what they do, as a result of the experience. I think there will be an amazing legacy for Scotland and the Scottish art scene."

The 2017 Venice Biennale experience will certainly live on in the University. The students are planning collaborative shows in Cardiff and Edinburgh with artists they met there. The Talbot Rice Gallery is focusing on commissioning new work and exploring the possibilities of group shows, two defining features of the Biennale. The artist who represented Hong Kong, Samson Young, has been commissioned by the gallery to produce a work for 2019, and Jesse Jones' Venice work, *Tremble Tremble*, will be on show in late 2018.

Additionally, the University has purchased the film *Spite Your Face* to form part of its official Art Collections. In February 2018, nearly a decade after graduating, Ms Maclean will return to the University, and, alongside many others, will attend her film's UK premiere at the Talbot Rice Gallery.



# Stimulating success through cross-border research

**A mood of optimism prevails among Edinburgh's early-career academics despite Brexit uncertainties.**

It is Edinburgh's global reputation for academic excellence that draws so many early-career researchers to the city; it is the University's international outlook that convinces so many to stay.

Those who choose to develop their careers here are part of a continuing story, key to the University's success since its earliest days when European influences first held sway: among them a curriculum taking its lead from Paris; and experimental methods inspired by the Dutch.

It has always been a two-way process. As the University played host to the Scottish Enlightenment's great flowering of thought in the 18th century, the celebrated French philosopher Voltaire proclaimed: "It is to Scotland that we look for all our ideas of civilisation."

This appetite for endeavour that transcends disciplinary, intellectual and institutional boundaries endures to the present day, and in the wake of the 2016 EU referendum result, Edinburgh's desire to be a leading centre of excellence, open to the world, is undiminished.

For the University, two priorities continue – to maintain the mobility of European staff and to sustain European-funded research partnerships. It is perhaps little surprise then, that in the past year, early-career academics at Edinburgh have secured €9 million from the European Research Council's (ERC) Starting Grants programme.

The successful researchers, based across the University's three Colleges, are quick to praise a funding scheme that enables ambitious, fundamental work. Among them is Dr Bin-Zhi Qian, Reader and Cancer Research UK Fellow at Edinburgh's Medical Research Council Centre for Reproductive Health, whose research passion is cancer metastasis – how tumour cells spread – and therapy resistance. Working with teams in the US and Germany, his group's goal is to develop effective treatments.

A sense of urgency pervades the work that informs his study into metastatic hormone refractory prostate cancer. Despite advances in early diagnosis, fewer than half of patients

“ Collaboration across borders is vital. Brexit may impact recruitment, but the University has been very supportive. I am excited about what lies ahead. **Dr Jennifer Smillie**

can expect to survive 12 months once tumour cells begin to resist current treatments.

“Working across borders is critical for success,” says Dr Qian. “The University has been extremely supportive, helping us to attract excellent scientists. Our thoughts, looking forward, are positive.”

Time is of the essence too for Dr Jennifer Smillie, a Royal Society Research Fellow in the University's School of Physics & Astronomy, who is drawing meaning from data derived from the Large Hadron Collider (LHC) near Geneva.

The discovery in 2012 of the Higgs boson makes this a pivotal period for particle physics. The LHC is a discovery machine, designed to shed light on unanswered questions about physics at its smallest scale. With ERC funding, Dr Smillie can push forward: “With the LHC running, this is time-critical. Collaboration across borders is vital. Brexit may impact recruitment, but the University has been very supportive. I am excited about what lies ahead.”

In the School of Chemistry, Chancellor's Fellow Dr Michael Cowley is seeking alternatives to costly, toxic metals that underpin much of the chemistry we rely on to make things such as plastics, drugs – even Post-it notes. By exploring the structure of new and unusual aluminium compounds, he hopes to devise cleaner, efficient alternatives, collaborating with other research groups. Having worked overseas, Dr Cowley knows the value of absorbing different techniques, scientific traditions and schools of thought. Such openness is vital: “The University is working to influence policymakers, trying to make it easy for people to cross geographical and scientific boundaries,” he explains. “If we lose this, our science and our society will be poorer.”

Another Chancellor's Fellow, Dr Alice Street, is all too aware of barriers to progress. Based in the University's School of Social & Political Science, she is striving to improve the

efficiency of rapid, portable diagnostic medical devices in areas devoid of transportation, communication or electrical infrastructure. Working with research partners in Sierra Leone and India, her study will investigate the social, cultural and technical processes involved in developing and using diagnostic tools in settings where resources are limited.

For Dr Street, the ultimate goal is to guide global health policy: “ERC funding provides an opportunity to lead a large-scale, comparative, anthropological study that not only addresses an intractable challenge, but also helps to advance theoretical thinking.”

This approach chimes with that of Dr Kevin Myant, Principal Investigator at the Cancer Research UK Edinburgh Centre, who is seeking to understand how colon cancer spreads, specifically how genetic mutations drive its formation. There has been huge investment in identifying mutations that occur in cancer, but it is unclear which ones cause disease to form and spread. Dr Myant aims to solve the riddle and pave the way for new therapies.

“The ERC provides generous funding for relatively high-risk, high-gain projects that other funders may find too speculative,” he explains. “Projects such as mine, which work across international boundaries, are ideal for this type of funding.”

It sits well too with Dr Sotiria Grek, Senior Lecturer in Social Policy, whose research explores how metrics – standards that measure efficiency, performance and progress – can actively contribute to policy decision-making across national borders, primarily in education and sustainable development. Her new project's focus will be the complex relationship between international organisations and the production of statistical data. This comparative, transnational research focus has not only defined her career but also Dr Grek's identity as a European citizen: “I have always considered the ERC more of an intellectual 'home' than just another funder. It values interdisciplinarity and nurtures in-depth study – the kind of slow social science that is so needed, yet is so rare.”

Left to right: Dr Alice Street, Dr Kevin Myant, Dr Sotiria Grek, Dr Michael Cowley and Dr Bin-Zhi Qian



# Backing a life-changing investment for the whole community

**On 20 July 2017, the University was one of several signatories to what could be one of the most significant events in its 434-year history.**

The Edinburgh and South East Scotland City Region Deal pledged £1.1 billion to fund major infrastructure projects in Edinburgh, the Lothians, Fife and the Scottish Borders. The money will come from the Scottish and Westminster governments and partners in the local authorities, universities and private sector.

The ambition is to make Edinburgh and its surrounding area 'the Data Capital of Europe'. By developing clusters of activity based upon data science – the collection, organisation and interpretation of large sets of digital information – the University will be key to achieving the City Region Deal's goal.

"In many ways, the University is the glue that holds the whole thing together," says Senior Vice-Principal Charlie Jeffery, who represented the higher education sector in the negotiations. "We have a vision and capacity for technological innovation that can change and drive the economy."

"The funding gives us both the opportunity and the huge challenge to deliver on our potential," says Vice-Principal Planning, Resources and Research Policy, Professor Jonathan Seckl. "It is intended to facilitate necessary and beneficial change in how we do things, how we engage with our city and impact on Scotland and the wider world."

The University is dedicated to data innovation in both teaching and research. For example, it is home to Europe's highest-ranking School of Informatics. Its world-class research in machine learning, robotics, computer science and artificial intelligence has spawned some 100 companies in recent years.

More sophisticated use of data allows better understanding and prediction of trends and behaviour, leading to improved services. One example of this can be found in University researchers' work with diabetes patients at the University's Usher Institute. Experts used vast data sets to ensure patients receive the best possible care at all points of contact within the NHS in Scotland. The work has significantly reduced the disease's harshest effects: blindness is reduced by 40 per cent and amputations by 42 per cent.

Boosted by the City Region Deal, these existing data science practices will be scaled

**“ This university has been in the city, doing great things, for several hundred years combining our strengths with that of the region, to create something new, something very valuable.**

**Senior Vice-Principal Charlie Jeffery**

up and new ones developed. The process will change the University at both an operational and cultural level.

There will be three main emphases, according to Professor Seckl: "Outward-looking researchers; talent generation; and industrial and public sector partners in the same place, breathing the same air."

The deal will facilitate these three areas by investing in major capital projects that will give a home to researchers, students and industries working on data-driven innovation. An example of this can already be seen in the recently created Bayes Centre, which will house computer scientists, engineers, mathematicians and industry colleagues working on fundamental computer and data science. Major partners such as Intel and Silicon Graphics are already lined up to move in to the building, on its completion in 2018.

In 2021, the Edinburgh Futures Institute will take up residence in the former Royal Infirmary and will pioneer how data can be used in the creative industries, financial sector, government and education.

The Usher Institute – working on health and social care data to improve care – currently exists virtually but the City Region Deal will give it walls.

The National Robotarium – a partnership with Heriot-Watt University – will see advances in robotics, while staff working on the University's Easter Bush campus will work with environmental, genomics and genetic data, vital for improving agriculture.

"This is moving the University away from the traditional model of buildings in which academics and students mingle, but live their working lives apart from the rest of our city region," explains Professor Seckl. "It should be where students are rapidly exposed to the working world, to jobs and innovation."

The City Region Deal will further generate talent through lifelong education in the skills

needed for the data-driven economy, a sector that could be worth \$2.7 trillion in 2020, according to the International Data Corporation.

"This can't just be growth that simply benefits those who were already doing well," states Professor Jeffery. "It must be growth that is available to all. We have developed a strong emphasis on inclusion, making sure everyone across the region has a chance to develop those skills."

The demand for workers with digital skills in Scotland is 11,000 a year. However, only 4,000 a year are currently being produced. The University is working to ensure that the opportunities of the data-driven economy are available to everyone, at all stages of their career.

"We are looking at skills for the data economy across the life-course," explains Professor Jeffery. "We are looking at everything: how to adapt teacher training from primary school upwards; resources for primary and secondary schools; new forms of cooperation with colleges and other universities; and new ways of supporting on-the-job retraining and upskilling."

Goals set by the City Region Deal include training 100,000 people to flourish in the data economy over the next 10 years, and the creation of 40,000 to 50,000 new jobs. Datalab, an innovation centre hosted by the University, has an important role to play, offering business development support and training opportunities to both start-up and established businesses.

"In a sense, the City Region Deal is an opportunity to renew that civic tradition on which the University was founded," says Professor Jeffery. "This university has been in the city, doing great things, for several hundred years combining our strengths with that of the region, to create something new, something very valuable. The City Region Deal has the potential to be one of the landmarks in that centuries-long history."



# Cracking the code to supporting technology in African schools

**A lack of technology in sub-Saharan African schools has put millions of children at an educational disadvantage. Edinburgh graduate and PhD student James Turing has been working to remedy this through his foundation, the Turing Trust.**

Having first visited Ghana in 2009, James was struck by the lack of technology in school classrooms. Since then he has been working tirelessly to repurpose computers for use in schools across Africa, and has also been working to plug the technology gap.

After gaining his MEng in Structural Engineering & Architecture from Edinburgh in 2015, James is now working towards his PhD in International Development. His research focuses on the circular economy in Kenya, which led to the founding of the Turing Trust and his innovative approach to reusing IT equipment.

“After working in rural African communities for a couple of years, I realised that we weren’t able to support as many schools as we would like, with repurposed computers,” explains James. “Many didn’t have access to traditional on-grid electricity. This led us to establish SolarBerry, which is a solar energy experiment to see what we can do to solve that problem.”

In the past year his efforts have not gone unnoticed. He became one of only 18 students to be awarded a grant from the Clinton Global Initiative (CGI) University Innovation Fund. The fund supports effective, high-impact student innovators and entrepreneurs from around the world.

Ms Megan Strawther, Community Engagement Manager for CGI, explains that the project was chosen for a grant because CGI believed the funds would be implemented thoughtfully and result in significant impact.

“James has consistently demonstrated his reliability, passion for the work, and a willingness to adapt to changing circumstances,” says Ms Strawther. “He is tackling many issues, including lack of digital access within rural communities, the

“I’ve been around these schools for nearly seven years and the desire for education is always awe-inspiring.

**Mr James Turing**

technological gap and, perhaps most significantly, access to educational resources. He has dedicated months of his life to really understanding the needs of these communities and we are confident that through his commitment, these areas will be significantly impacted.”

As a direct result of the CGI funding, James and his colleagues were able to work closely with communities in Malawi to identify their specific needs. James is conscious that the Turing Trust works with in-country partners wherever possible and that the relationships with these contacts form the crux of their projects.

“Our work isn’t about white saviours going in and distributing things,” he says. “We always work with in-country partners. In Malawi we are working with a charity called the Centre for Youth and Development. These partnerships truly define everything we do and without them we simply wouldn’t have a project.”

“One of the first steps is getting teachers involved,” he continues. “When they get a computer in their school you always find that teachers are some of the happiest beneficiaries. In their free time they can almost be guaranteed to be using the computers and improving their own digital skills, which then trickles down to the students.”

For James the innovative aspect of the work is simply spending time with the communities and making sure that what is being done is actually working effectively: “We want to ensure that the computers stay working for the next five years or longer; that’s our aim.”

James hopes that the work of the Turing Trust will enable people from rural areas to catch up with their urban counterparts and create an equal distribution of digital opportunities.

“I’ve been around these schools for nearly seven years and the desire for education is always awe-inspiring,” he comments. “The conditions are extremely basic for many children. You don’t think we live in a world where poverty is so endemic but people are genuinely malnourished. With education you sometimes think you’re leapfrogging too far and that the focus should be on food rather than computers but we hope that our work can help improve circumstances in these communities.”

With his PhD work overlapping with the work of the Turing Trust, James is clearly grateful for the support his supervisors have offered him in the past few years. The University supported the Trust’s efforts in a more practical way too: “Our workshop was based in High School Yards for the past two years and we would not have achieved so much if we didn’t have that backing,” comments James. “During that time we grew from delivering a few hundred computers a year to delivering 1,500 a year. We’ve crossed a hurdle thanks to the University’s support.”

James founded the Turing Trust in honour of his great uncle, the computer scientist and World War II code-breaker Alan Turing. His uncle’s legacy is kept alive by James’ work with the Trust. Alan Turing wanted technology to be available to all and was keenly aware that the underprivileged in the world require support.

“One of the lesser-known things about Alan was his charitable philosophy and the fact that he sponsored a refugee through higher education throughout his life,” reveals James. Turing helped a young Jewish refugee from Vienna who arrived in the UK in 1939 by securing him a place in a public school and maintaining an interest in his career.

“When Alan was developing aspects of computing, he would never have wanted access to be restricted to only the wealthiest people in the world,” says James. “Alan undoubtedly would have wished his technology and work to be shared the world over, which is what we are trying to do with the Turing Trust.”



# Racing to develop the next mode of transport

A student team's award-winning efforts to bring about the creation of a revolutionary mode of transport are providing them with a remarkable Edinburgh experience.

Over the past two years members of a student team, called HYPED, have spent countless hours pursuing a global challenge: to help design and build a futuristic travel system known as the Hyperloop.

The brainchild of billionaire entrepreneur Elon Musk, the Hyperloop is a mode of transport intended to take passengers over land in pods travelling at around 750mph in a near-vacuum tube. These pods are accelerated by linear induction motors and pass between stations using passive magnetic levitation. A pod could carry up to 20 passengers, and building a route linking Edinburgh and London could allow journey times of just 45 minutes.

The Edinburgh team's hard work and dedication was richly rewarded in 2017 as its achievements took members of HYPED halfway around the world and won them international recognition.

The team's President, electrical and mechanical engineering undergraduate Adam Anyszewski, believes its success is partly down to its diversity and the international mix of students involved.

"Team spirit is key," says Adam. "There are a lot of really ambitious students at Edinburgh, and at HYPED we are working together to try to do something interesting for our careers and the well-being of the world."

Founded in 2015 by a handful of engineering students, HYPED has since grown into a well-structured society with more than 100 members from disciplines including engineering, business, art and law.

Russian postgraduate Sophiya Volkova, who leads HYPED's six-strong legal team, is currently pursuing an MSc International Business with Emerging Markets, following her undergraduate studies in law at Edinburgh. She was initially drawn to the University by its prestige and the study options available: "The University's reputation was a big attraction – it's valued around the world," says Sophiya. "I also wanted to study law and combine it with Spanish, which is

“ Team spirit is key. There are a lot of really ambitious students at Edinburgh, and at HYPED we are working together to try to do something interesting for our careers and the well-being of the world.

**Mr Adam Anyszewski**

something very few universities in the UK offer. Since I've been at Edinburgh, HYPED has become a very significant part of my life, and a definite highlight of my university career."

Last summer HYPED was the only group from the UK – and one of just four European teams – to reach the final of a contest to design and build a prototype Hyperloop pod. Out of 1,200 groups that submitted initial designs to the SpaceX Hyperloop Pod Competition, HYPED was one of only 24 teams invited to compete in the final in California.

Macaulay Versey, who is currently studying electrical and mechanical engineering at Edinburgh, is an integral part of HYPED's technical team and rightly proud of its achievements: "The pod was built in around three months by a handful of HYPED members," he reports. "The fact we were able to build the pod in such a short time-span and take it to California to compete is remarkable."

Despite putting in a strong performance in California, the team didn't win, but Adam believes HYPED can achieve this in future: "We firmly believe it's within our abilities to finish in one of the highest positions at the next SpaceX competition," he says. "Taking part was a huge logistical challenge – we moved 20 people and half a tonne of gear to the other side of the Atlantic – so this year we'll begin planning and building much earlier."

Since its inception, HYPED has drawn on the expertise, advice and experience of Professors Gordon Masterton and Win Rampen of the University's School of Engineering, who made an invaluable contribution to their efforts.

"I've met with the team weekly over the past year to discuss technical issues," comments Professor Rampen. "It has been my privilege to work with this group of self-organised and highly motivated, visionary students."

Alongside their technical expertise in Hyperloop pod design, HYPED's business awareness was also demonstrated last summer when they became the only student team to win a top prize in a related commercial competition.

More than 2,600 teams registered for the Hyperloop One Global Challenge, which tasked teams with developing detailed plans for the most feasible routes to implement one of the world's first Hyperloop systems. HYPED's proposed route from Edinburgh to London was chosen as one of just 10 winners by an expert panel.

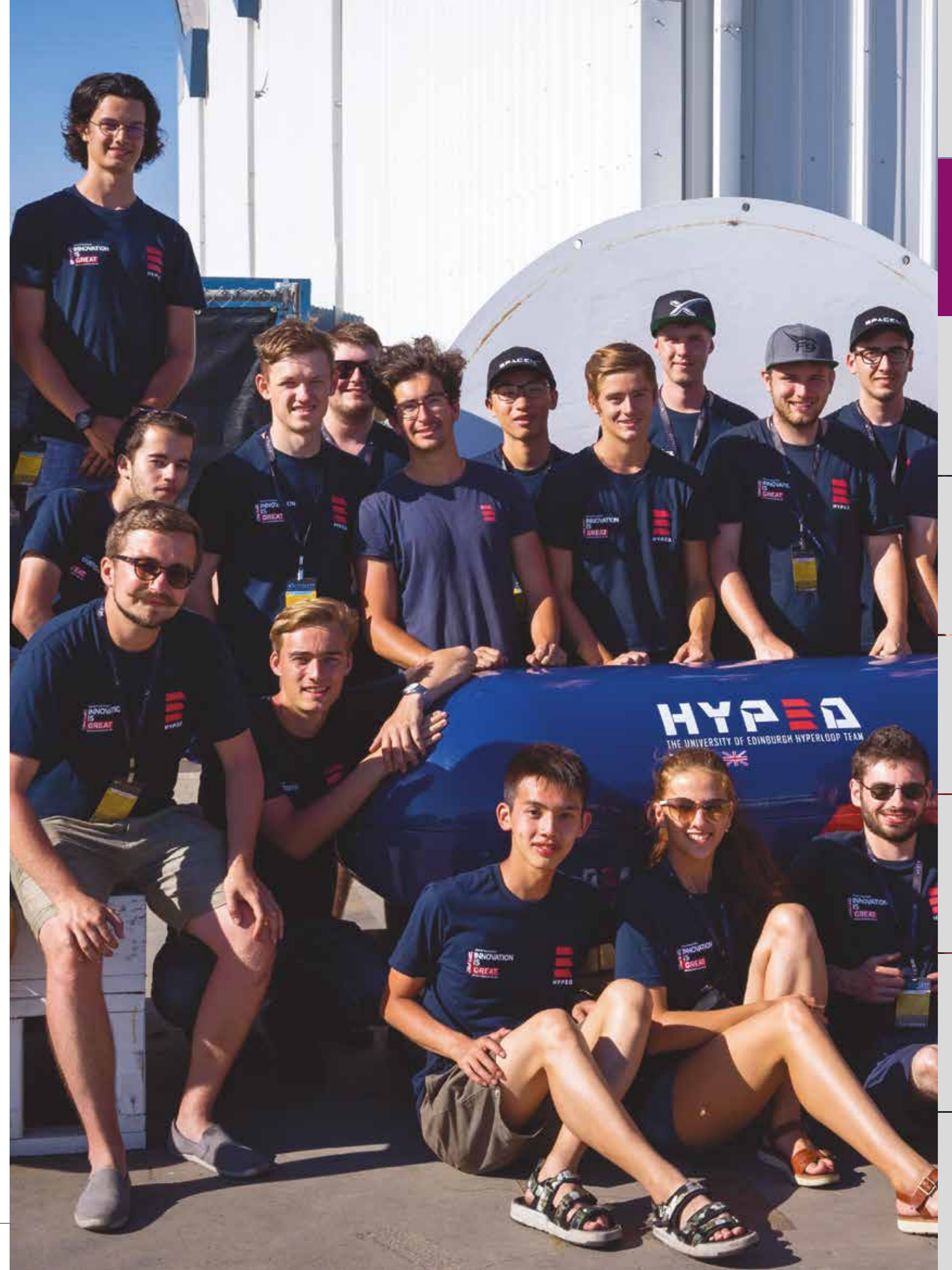
"Our ability to tackle both the technical and commercial challenges presented by the Hyperloop arguably makes HYPED the most accomplished student team working on the technology," says Adam.

HYPED were the only team to compete in both the SpaceX pod competition and also win Hyperloop One's business challenge.

Their involvement in Hyperloop One was led by Carolina Toczyska, the team's Head of Commercial, who is pursuing a PhD in data-driven innovation. Caroline highlights the key role played by the University in helping to create impactful societies: "The University enables students here to create and build amazing experiences for themselves through its support for societies like HYPED," she says. "I hope that we can inspire other people and show them that there is so much you can achieve as a society at Edinburgh."

As well as aiming for more success in the next SpaceX pod competition, the team is looking to further develop commercial ties with Hyperloop One and other companies. It is also working on an outreach programme aimed at encouraging more young people, particularly females, into STEM subjects. After a momentous year, the determination and drive of the students of HYPED is sure to propel them on to yet greater success.

Mr Adam Anyszewski, seated front far left, with members of the student team HYPED



# The Students' Association Teaching Awards 2016–17

Now in their ninth year, the Students' Association Teaching Awards honour the very best contributions to the student learning experience made by teaching and support staff across the University.

More than 2,400 nominations were received from students for this year's awards, which took place in Teviot Row House on Thursday 27 April 2017.

Here we celebrate the winners and share some of the many positive and insightful comments made by the students who nominated them.



**Best Innovative Assessment**  
**Fiona Duffy**  
School of Health in Social Science  
for: Applied Psychology for Children and Young People

*"We all developed new services, resources and training that are likely to be useful in the real world. I came out of the assignment with not only a good grade and a strong theoretical understanding, but I had a new mental health resource that I could discuss with future employers."*

**Best Personal Tutor**  
**Dr Rachel Howell**  
School of Social & Political Science

*"She really cares about every student who passes through her doors. She uses her own experiences to connect to us and suggest the best ways forward."*



**Best Student Who Tutors**  
**Tim Squirrel**  
School of Social & Political Science

*"When you go to his tutorials, you know you have someone who cares about your academic development and who is there to prepare you for the trauma of your very first university essays."*



**Best Feedback**  
**Dr Carlos Soler Montes**  
School of Literatures, Languages & Cultures

*"His feedback is beyond compare... he explains concepts thoroughly, diagnosing the individual strengths and weaknesses of each student while also seeking out 'teachable moments' that are useful for the entire class."*



**Best Support Staff**  
**Karen Howie**  
School of History, Classics & Archaeology

*"Karen is the linchpin of the School, without her and her IT team, I am convinced the School would fall apart. She is a gold standard employee and the University must never let her go."*



**Best Research or Dissertation Supervisor**  
**Sarah Dunnigan**  
School of Literatures, Languages & Cultures

*"Sarah's contribution to academic life has been her unwavering compassion and kindness as a supervisor. She is an inspirational educator who has supported countless students through their postgraduate studies."*



**Van Heyningen Award for Best Teaching in Science and Engineering**  
**Corinne Baulcomb**  
School of GeoSciences

*"Corinne has blown me away by not only the sheer extent of expert knowledge that she has been able to convey precisely and clearly but also the enthusiasm and excitement that she has for the subject. The teaching has been fluid, fresh and challenging."*



**Ian Campbell Award for Best Teaching in the Arts, Humanities and Social Sciences**  
**Dr Adam Budd**  
School of History, Classics & Archaeology

*"Adam's teaching is legendary and his courses are consistently popular. Students experience rich, well thought-out teaching; as an active researcher and an expert in his field, Adam's enthusiasm brings his subjects to life. He stands out from the crowd."*



**Best Course**  
**Dr Chris Beward and Dr Nikki Moran**  
Edinburgh College of Art

for: Music, Style, Identity and Image in the Modern Age

*"This is the first time we have had the opportunity to do a course that is truly cross-disciplinary. It is the only course I have taken which includes a wide range of students from all over the art school, including visiting students. The discussion in seminars is always lively and there has also been a refreshing amount of content about gender and race relations."*



**Kendell Award for Best Teaching in Medicine**  
**Dr Kate Byrne**  
Edinburgh Medical School

*"Kate is fully supportive of all her pupils, taking time to get to know each and every one of us. She strikes the perfect balance between offering knowledge and help and encouraging us to puzzle things out for ourselves."*



**Best Teaching in Veterinary Science**  
**Jenna Richardson**  
Royal (Dick) School of Veterinary Studies

*"It is a challenging thing to make a 150+ seated lecture theatre of mixed-age, tired, unenthusiastic students feel re-enthused immediately after Christmas, but Jenna has done it from day one of our return."*



# Review of the year

A selection of news and events from August 2016 to July 2017

## August 2016

### Deep time illuminates Edinburgh castle

The world-famous Edinburgh International Festival launched with an epic, outdoor artwork of animation, lighting and music celebrating 350 million years of the city's history. The 18-minute display, *Standard Life Opening Event: Deep Time*, was enjoyed by almost 30,000 people who watched the breathtaking animation as it was projected onto Edinburgh Castle and Castle Rock accompanied by music from the Scottish band Mogwai.

University staff worked closely with 59 Productions to help produce the event, which was inspired by the concept of geologic, or 'deep', time, developed by alumnus and 'father of geology' James Hutton in the 18th century.

Professor Dorothy Miell, Vice-Principal and Head of the College of Arts, Humanities & Social Sciences, commented: "This spectacular show is another cutting-edge project demonstrating our long-standing and inspiring partnership with the Edinburgh International Festival and our pioneering work with the digital arts."

[www.eif.co.uk/2016/deeptime](http://www.eif.co.uk/2016/deeptime)

## September 2016

### The University welcomes all on Doors Open Day

The University took part in the annual Edinburgh Doors Open Day, one of the city's most popular free events. Promoted by the Scottish Civic Trust and coordinated by the Cockburn Association, the event offers people a rare opportunity to see inside some of the most important architectural, social and cultural buildings in the area.

With a 430-year history and an estate which includes many converted, listed and contemporary buildings, the University was able to offer an interesting and varied selection for the weekend-long event.

Visitors enjoyed access to buildings including the refurbished St Cecilia's Hall (pictured is a detail of the building's metal façade) in the University's Central Area; the FloWave Ocean Energy Research Facility at the King's Buildings; and the Anne Rowling Regenerative Neurology Clinic at Little France. Each building provided information to help visitors learn more about its history, design and day-to-day function, and many offered a range of activities, exhibitions and talks.

[www.cockburnassociation.org.uk/edinburgh-doors-open-day](http://www.cockburnassociation.org.uk/edinburgh-doors-open-day)

## October 2016

### Chemistry alumnus wins Nobel Prize

Edinburgh alumnus Professor Sir J Fraser Stoddart was awarded the Nobel Prize in Chemistry. The prize was awarded jointly to Professor Stoddart, Jean-Pierre Sauvage and Bernard Feringa for the design and synthesis of molecular machines. Professor Stoddart is one of the few chemists of the past 25 years to have created a new field of organic chemistry. His award recognises his development of a rotaxane molecule in 1991.

Professor Sir Timothy O'Shea, Principal of the University, welcomed the achievement: "For someone who has given so much to others throughout his career, we are thrilled that Professor Stoddart's work is being celebrated at the highest level."

Professor Stoddart, currently of Northwestern University in Illinois, received his BSc from Edinburgh in 1964 and a PhD two years later. He was also awarded a DSc degree by the University in 1980 for his research into stereochemistry beyond the molecule.

[www.nobelprize.org](http://www.nobelprize.org)

## November 2016

### Festival celebrates Gaelic community

The University was closely involved in the week-long Edinburgh Gaelic Festival, known as Seachdain na Gàidhlig in Gaelic. Among the highlights were the screenings of two Gaelic films, *Tron Doras* (pictured) and *Shepherds of Berneray*, at the University's 50 George Square, and a whisky tasting event led by the University's Water of Life Society, during which experts offered an insight into the pronunciation and meaning of Gaelic whisky names.

A new Gaelic journal was launched at the University in partnership with publishers Clàr during the festival. *STEALL* features established and up-and-coming new Gaelic writers. For the festival finale, the University's Highland Society hosted a ceilidh in Teviot Row House.

The annual festival is run by a dedicated committee of volunteers and is supported by Gaelic officers from the University and Iomairt Dhùn Èideann (the Edinburgh Gaelic Initiative).

[www.ed.ac.uk/about/gaelic-language-plan](http://www.ed.ac.uk/about/gaelic-language-plan)

## December 2016

### University commits to cut carbon by 2040

The University's new Climate Strategy was launched, which aims for the institution to be zero carbon by 2040. Action is being taken across all of the University's activities, including research, learning and teaching, operations and responsible investment. The first scheme from the strategy was a £2.75 million initiative called the Sustainable Campus Fund to help bring to reality sustainability suggestions made by staff and students.

Edinburgh's world-leading climate research has secured more than £50 million in funding over the past seven years. The University has also invested more than £30 million in low-carbon and renewable technology on campus. Senior Vice-Principal Charlie Jeffery commented: "In this strategy, we commit to long-term goals to ensure we are leading the way in tackling climate change across all of our activities and recognising the core strength of the University as a globally connected, socially committed research and learning organisation."

[www.ed.ac.uk/about/sustainability](http://www.ed.ac.uk/about/sustainability)

## January 2017

### Zebrafish aid quest to treat disease

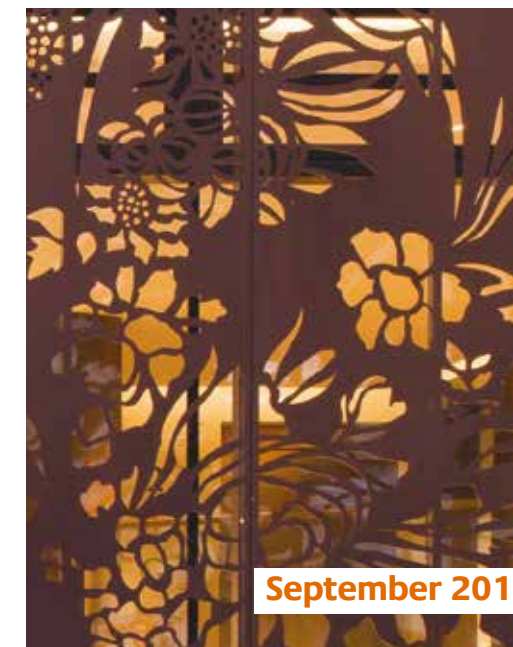
A study, published in the journal *Scientific Reports*, revealed how tropical fish are helping scientists to stop inflammation in the body. Researchers used specialised microscopes to watch neutrophils cells, that are part of the immune system, as they heal wounds in living zebrafish. Once an infection has been cleared, neutrophils usually self-destruct to prevent bystander damage to healthy tissues. Scientists discovered that a key molecule called CDK9 helps neutrophils to swerve the self-destruct process, keeping the inflammation going. Blocking CDK9 – using drugs called CDK9 inhibitors – triggered the neutrophils to die, resolving inflammation in the fish.

"These relatively simple fish are helping us to understand the fundamental process underpinning the resolution of inflammation, and will help discover new therapies for the treatment of inflammatory diseases," said Professor Adriano Rossi of the Medical Research Council Centre for Inflammation Research, where the research was carried out.

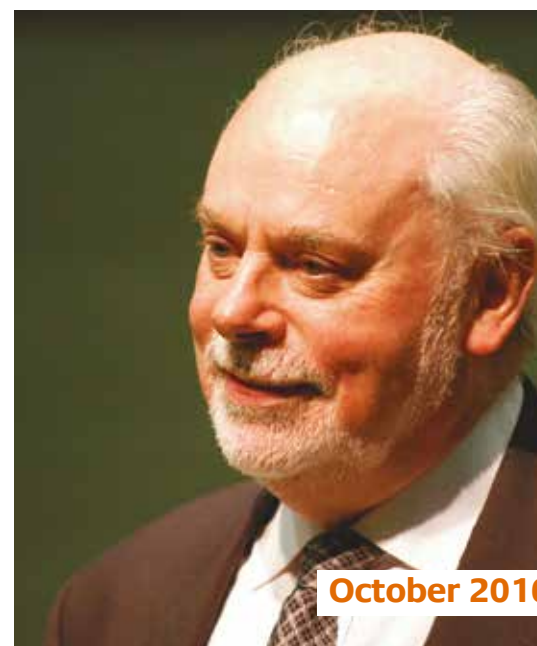
[www.nature.com/articles/srep36980](http://www.nature.com/articles/srep36980)



August 2016



September 2016



October 2016



November 2016



December 2016



January 2017



# Review of the year

## February 2017

### Enhancing skills through the Festival of Creative Learning

The University's Festival of Creative Learning saw more than 130 events open to all staff, students and members of the wider community. The week-long event aimed to give people an opportunity to work together and learn new skills.

Among the inspiring and creative offerings were a mathematics themed bake-off competition, a workshop showcasing the biological science behind glow-in-the-dark plants, and an introduction to mindfulness and beginners' Spanish – combining relaxation with learning a new language.

Run by the Institute for Academic Development, the Festival of Creative Learning builds on Innovative Learning Week, which ran from 2012 to 2016. It aims to celebrate and share good practices happening throughout the University, and support innovative ways of teaching.

[www.festivalofcreativelearning.ed.ac.uk](http://www.festivalofcreativelearning.ed.ac.uk)

## March 2017

### World's first national live music census takes place

For 24 hours in March, organisers of the UK Live Music Census monitored performances in cities across the country – including buskers, choirs, pub gigs and stadium concerts. The aim of the survey – a world first – was to help measure live music's cultural and economic value and inform policy to help it flourish.

The Arts and Humanities Research Council-funded census – conducted by the Universities of Edinburgh, Newcastle and Glasgow – recruited volunteers to record aspects of a gig including the musical genre, the venue and the audience demographic.

Dr Matt Brennan, Chancellor's Fellow, Reid School of Music, said: "Live music in the UK – from the Beatles and the Sex Pistols to West End musicals and Glastonbury – has transformed our culture, yet it is constantly under pressure. This census will help give us an accurate snapshot of the scene's health."

[www.uklivemusiccensus.org](http://www.uklivemusiccensus.org)

## April 2017

### Funding backs next stage of Roslin research

Research to improve the health, welfare and sustainability of livestock farming received a £29.3 million award from the Biotechnology and Biological Sciences Research Council (BBSRC). The funding is part of a £318 million UK-wide investment by the BBSRC to support strategic research programmes in the UK's National Institutes of Bioscience, of which the University's Roslin Institute is one.

"The Institute plays a pivotal role in the University's mission to tackle the many pressing issues in animal health and welfare, including those which have implications for human health and sustainability of animals in the food chain," explained Professor Sir Timothy O'Shea, Principal and Vice-Chancellor at the University.

The funding will support three key programmes of research: how genes determine the healthy development and function of systems in the body; infectious diseases in farmed animals; and the role of genetic, environmental and dietary factors that affect livestock growth.

[www.ed.ac.uk/roslin](http://www.ed.ac.uk/roslin)

## May 2017

### Edinburgh wins the Scottish Boat Race

Edinburgh rowed to victory over Glasgow rivals in the Scottish Boat Race. The annual rowing competition, held on the River Clyde, is the third oldest boat race in the world.

Edinburgh took the trophy after winning all seven of the races: the Graduates Race; Men's Beginner VIII; Novice Women's Race; Men's 2nd VIII; Women's 2nd VIII; Men's 1st VIII and Women's 1st VIII. Rowers included beginners, alumni, and senior men and women from Edinburgh University Boat Club.

The Boat Club, which celebrated its 150th anniversary in 2017, is one of the biggest sports clubs at the University with 230 members. It is one of only a handful of clubs in the UK to host a high-performance programme supported by the organisation British Rowing. The programme was awarded in recognition of the club's excellent track record nurturing world-class rowers.

[www.edinburghrowing.co.uk](http://www.edinburghrowing.co.uk)

## June 2017

### Innovation celebrated at Inspire Launch Grow Awards

The 2017 Inspire Launch Grow (ILG) Awards were held in the University's Informatics Forum. The annual awards recognise University staff, researchers, students and alumni who have started a business or social enterprise or turned their research into a business opportunity. Prize money worth a total of £20,000 was awarded to winners of the Innovation Cup, Emerging Innovation Award, the Social and Environment Award and the Enterprise Award.

Grant Wheeler, Head of Enterprise Development at Edinburgh Innovations, commented: "The entrepreneurial talent here at the University is among the best in the UK and this is reflected in the quality of this year's entries to the ILG awards. The presence of so many successful companies that started here at the University, during the Principal's term of office, highlights the first-class support that we provide to the student and staff network."

At the event, the Principal, Professor Sir Timothy O'Shea, was awarded with a Marty the Robot from Robotical, a previous ILG Innovation Cup winner, as a thank you for his support of ILG over the years.

[www.launch.ed.ac.uk/ilg](http://www.launch.ed.ac.uk/ilg)

## July 2017

### Dementia prevention hopes raised by £1.9m boost

A £1.9 million investment in dementia research was announced. The project – known as the TriBEKA Consortium – aims to give a clearer understanding of the first factors that determine risk of dementia. It brings together experts led by the University, the Barcelonabeta Brain Research Centre and Sweden's Karolinska Institute. The funding came from the US-based Alzheimer's Association and a donation from an anonymous international charitable foundation.

As part of the project, researchers will study the brain using positron emission tomography and magnetic resonance imaging. Participants in the study will also take part in memory tests, and family history and lifestyle assessments.

Professor Craig Ritchie, Director of the University's Centre for Dementia Prevention, said: "As brain changes that cause dementia happen many years before symptoms, we have an opportunity to prevent progression before people are affected. TriBEKA puts us in a unique position to understand how we might do this."

[www.centrefordementiaprevention.com](http://www.centrefordementiaprevention.com)



# Honorary graduations and other distinctions

Those awarded honorary degrees between 1 August 2016 and 31 July 2017



**Professor Dr Elena Vladimirovna Boldyreva**  
Head of Chair of Solid State Chemistry, Novosibirsk State University, Russia  
Doctor of Science



**Ms Caroline Natalie Freedman**  
University of Edinburgh appointed member on RCVS Council and active supporter and ambassador of the Royal (Dick) School of Veterinary Studies  
Honorary Fellow



**Professor Bruno Latour**  
Professor of Sociology, Institut d'Etudes Politiques de Paris (Sciences Po)  
Doctor of Science in Social Science



**Mr Tom Nairn**  
Author and academic  
Doctor of Science in Social Science



**Professor Randy W Schekman**  
Professor of Cell and Development Biology, University of California, Berkeley  
Doctor of Science



**Mr Donald Hood Brydon CBE**  
Chairman, Medical Research Council, London Stock Exchange and Sage Plc  
Doctor *honoris causa*



**Professor Yvonne Galligan**  
Professor of Comparative Politics, and founding Director, Centre for Advancement of Women in Politics, Queen's University Belfast  
Doctor of Science in Social Science



**Ms Lilian Keddie Lawson OBE**  
Retired Director of Scottish Council on Deafness  
Doctor *honoris causa*



**Professor Helga Nowotny**  
Professor Emerita of Social Studies of Science, ETH Zurich, former President European Research Council  
Doctor of Science in Social Science



**Mr Andrew James Scott**  
Artist and sculptural practitioner specialising in public art  
Doctor *honoris causa*



**Professor Kurt Roger Deketelaere**  
Secretary-General of the League of European Research Universities  
Doctor of Laws



**Dr Luke Robert Gamble**  
Founder and Chief Executive of Worldwide Veterinary Service and Mission Rabies  
Doctor of Veterinary Medicine and Surgery



**Mr Magnus Duncan Linklater CBE**  
Former Editor of *The Scotsman*, broadcaster and author  
Doctor *honoris causa*



**Mr Tony Oursler**  
Film and Video Artist  
Master of Arts, *honoris causa*



**Mr Oliver William Stone**  
Filmmaker  
Doctor *honoris causa*



**Professor Dianne Edwards**  
Research Professor and Director of Innovation and Engagement, Cardiff University  
Doctor of Science



**Dr Alasdair Robert Harris**  
Executive Director of Blue Ventures  
Doctor of Science



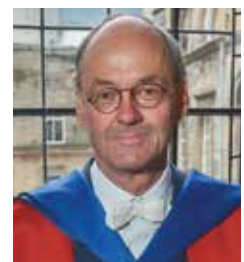
**Mr Joshua Howard Littlejohn**  
Co-founder of Social Bite and social entrepreneur  
Doctor of Science in Social Science



**Professor Sir Roger Penrose**  
Emeritus Rouse Ball Professor of Mathematics at the University of Oxford  
Doctor of Science



**Mr Charles Basil Tilley OBE**  
Former Chief Executive of the Chartered Institute of Management Accountants  
Doctor *honoris causa*



**Professor Wolfgang Hermann Wernher Ernst**  
Regius Professor of Civil Law, University of Oxford  
Doctor of Laws



**Professor Andrew Harrison**  
Chief Executive Officer, Diamond Light Source Ltd, Honorary Professor, School of Chemistry, the University of Edinburgh  
Doctor of Science



**Mr Robert Paul Madelin**  
Former Director-General, Communications Networks, Content and Technology, European Commission  
Doctor *honoris causa*



**Professor William Reid**  
Dean of Postgraduate Medicine, Scotland Deanery (South East Region)  
Doctor *honoris causa*



**Mr Justin Pierre James Trudeau**  
Prime Minister of Canada  
Doctor *honoris causa*



**Reverend Margaret R Forrester**  
Former Minister of St Michael's Church of Scotland, Edinburgh  
Doctor of Divinity



**Professor Brigid Laffan**  
Director of the Robert Schuman Centre for Advanced Studies and Director of the Global Governance Programme, European University Institute, Florence  
Doctor of Laws



**Dr Michael Hugh Mosley**  
Science journalist, presenter and executive producer  
Doctor of Science



**Dr Denis Rutovitz**  
Retired section head, MRC Human Genetics Unit, now Chairman (and founder) of Edinburgh Direct Aid  
Doctor of Science



**Professor Andrew Whiten**  
Professor of Evolutionary and Developmental Psychology and Wardlaw Professor of Psychology, University of St Andrews  
Doctor *honoris causa*

## University Benefactors



**Mr Brian Robertson and Mr Alastair Maclean**  
Robert O Curle Charitable Trust  
Named after a former staff member, the trust supports medical and veterinary research at the University.

# Awards and achievements

A selection of accolades bestowed upon staff, students, alumni and associates of the University of Edinburgh between 1 August 2016 and 31 July 2017

## Queen's Honours

### New Year Honours

**Professor Susan Deacon**, Assistant Principal External Relations, was appointed Commander of the Order of the British Empire (CBE) for services to business, education and public service.

**Professor Christopher Haslett**, Director of the Queen's Medical Research Institute, was appointed CBE for services to medical research.

**Simon Frith**, Tovey Professor of Music, was appointed Officer of the Order of the British Empire (OBE) for services to higher education and popular music.

**Susan Rhind**, Chair of Veterinary Education at the Royal (Dick) School of Veterinary Studies, was appointed OBE for services to veterinary education.

The **Reverend Dr Harriet Harris**, the University Chaplain, was appointed Member of the Order of the British Empire (MBE) for services to multi-faith education.

**Kathleen Hood**, retired Head of Widening Participation, was appointed MBE for services to widening participation in higher education.

### Birthday Honours

**Dr Colin Adams**, former Director of Commercialisation in the School of Informatics and Director of Informatics Ventures, was appointed CBE for services to innovation and entrepreneurship.

**John Moore**, Professor of Political Economy in the School of Economics, was appointed CBE for services to economics.

**Polly Arnold**, Crum Brown Chair of Chemistry, was appointed OBE for services to Chemistry and Women in Science, Technology, Engineering and Maths.

**Mrs Margaret K Ross**, Senior Lecturer for Dental Care Professionals and Programme Director for the BSc (Hons) Oral Health Sciences, was appointed OBE for services to dentistry.

## University Awards

### Chancellor's Awards 2016

These annual awards, presented by the University's Chancellor, are given in recognition of innovation, relevance, creativity and personal dedication in teaching and research.

**Dr Jessie Paterson**, Lecturer in Student Learning at The Royal (Dick) School of Veterinary Studies received the Award for Teaching.

**Professor Andrew Rambaut**, Chair in Molecular Evolution, School of Biological Sciences, received the Award for Research.

**Professor Lesley McAra**, Assistant Principal Community Relations and Chair of Penology, and **Professor Susan McVie**, Chair of Quantitative Criminology, School of Law, received the Award for Impact.

**Dr Sam Spiegel**, Lecturer in International Development and Director of Research at the Centre of African Studies, received the Rising Star Award, which honours early-career staff who demonstrate great potential.

### Principal's Medals 2016

These medals are one of the most important ways in which the University recognises both support and academic staff or current students who have made outstanding contributions to both the University and wider communities. Recipients are nominated by colleagues or fellow students.

**Amy Woodgate**, Project Manager, Distance Education Initiative & Massive Open Online Courses (MOOCs), and the MOOCs Team, received the Exceptional Service medal in recognition of their major contribution in establishing the University's internationally leading reputation for delivering MOOCs.

**Colin Adams**, Director of Commercialisation, received the Service to the Community award in recognition of his work in leading the commercialisation activities within and beyond the School of Informatics.

### Tam Dalyell Prize for Excellence in Engaging the Public with Science

The 2016 prize was awarded to **Professor Jon Oberlander**, Chair in Epistemics in the School of Informatics, who died suddenly and tragically in December 2017.

## Research recognition

### Nobel Prize in Chemistry

**Professor Sir J Fraser Stoddart**, alumnus of the University, has jointly been awarded the Nobel Prize in Chemistry for the design and synthesis of molecular machines. Professor Stoddart received his BSc from Edinburgh in 1964 and a PhD in 1966. In 1980 he was awarded a DSc.

### Regius Chair of Medical Science

**Professor Sir John Savill**, former Head of the College of Medicine & Veterinary Medicine, was appointed to the Regius Chair of Medical Science at the University in recognition of his international reputation and outstanding contribution to medical research in investigating the molecular processes of inflammation.

### Royal Commission for the 1851 Exhibition Medal

**Professor Emeritus Peter Higgs**, Nobel Laureate in Physics 2013, has received the Royal Commission for the 1851 Exhibition Medal for his outstanding contribution to physics. It is only the third time the medal has been awarded since its introduction in 2006.

### British Medical Journal Imaging Team Award

The **Clinical Research Imaging Centre** and partners NHS Lothian won the BMJ Imaging Team Award for their SCOT-HEART trial using CT coronary angiography, which has led to a threefold reduction in standard invasive angiography, and led to a new model for testing people with chest pain.

### Royal Scottish Geographical Society's W S Bruce medal

**Dr Andy Hein**, a Chancellor's Fellow in the School of GeoSciences, was presented with the W S Bruce medal by the Royal Scottish Geographical Society. The award recognises his scientific research into the history of ice-sheet fluctuations in Antarctica.

### Academia Europaea

**Professor Ian Ralston**, School of History, Classics & Archaeology, was elected as a member of the Academia Europaea. The Academia is a pan-European academy of science, humanities and letters with 4,000 members, including 72 Nobel Laureates.

## Making an impact

### Academic Association for Contemporary European Studies (UACES)

**Professor Jo Shaw**, Salvesen Chair in European Institutions received a UACES Lifetime Achievement Award, for her contribution to the development of European Studies as a discipline.

### Tilden Prize

**Professor Neil McKeown** was awarded the Royal Society of Chemistry's Tilden Prize for advances in chemistry, for his work on making porous materials that can be used to separate substances or in safety sensors for the chemical industry.

### Points of Light

**Dr Andrew Murray**, from the Physical Activity for Health Research Centre, was given a Points of Light award by the Prime Minister Theresa May. As well as volunteering his medical expertise, Dr Murray has raised more than £170,000 for charity through his extreme running achievements.

### British Psychological Society's Award for Innovation in Psychology

The **Psychology** teaching team at the University was recognised for enhancements made to its undergraduate programme. Changes have been made to improve the active engagement of students in the course, and give them more experience with psychological research and transferable skills.

### Association of Human Rights Institutes

**Dr Kasey McCall-Smith**, Edinburgh Law School, was appointed Chair of the Association of Human Rights Institutes (AHRI). AHRI is an international network, which undertakes research and educational activities in the field of human rights, globally. Dr McCall-Smith will lead AHRI on behalf of the University's Global Justice Academy for a three-year term.

### University Students' Association of the Year Award

**Edinburgh University Students' Association** received the accolade at the NUS Scotland 2017 Awards. The award recognises the progress the Students' Association has made over the past two years in seeking to become more inclusive and relevant to students.

## Rising stars

### Royal Society of Chemistry

**Dr Andrew Lawrence**, Senior Lecturer in organic chemistry, won the society's Hickenbottom Award, which is for contributions to organic chemistry from a researcher under the age of 35, for his work on improving how scientists make medicines, agrochemicals and other materials.

**Dr Nicholle Bell**, Research Fellow, won the Joseph Black Award for 2017, which is made to an early-career scientist in any field covering the practice and teaching of analytical science. Dr Bell won for her work in creating tools for assessing the status of peatlands.

### British Ramsay Memorial Fellowship

**Dr Jenni Garden**, Christina Miller Fellow in the School of Chemistry, was awarded a two-year British Ramsay Memorial Fellowship which she will take up when her current fellowship ends in September 2018.

### Royal Scottish Academy New Contemporaries

Seventeen 2016 graduates from Edinburgh College of Art were selected to exhibit at the Royal Scottish Academy's New Contemporaries exhibition, and won six awards:

**Oliver Beetschen**, **Shimal Morjaria** and **Jonathan Piper** won the RSA Architecture Prize; **Frances Rokhlin** won the Glenfiddich Artists in Residence Prize; **Megan Hampton** won the Friends of the Royal Scottish Academy Award; **Doug Stevens** won the Edinburgh Sculpture Workshop Graduate Research Award; **Lucy Wayman** was awarded the RSA Chalmers Bursary; and **James Howden Boyle** won the RSA Stuart Prize.

### Royal Society of Edinburgh Prizes

Prizewinners from the University include: **Dr Sinead Rhodes**, Deputy Director of Salvesen Mindroom Centre – the Innovator's Public Engagement Prize; **Professor Polly Arnold** FRSE, the Crum Brown Chair, School of Chemistry – the Lord Kelvin Medal; **Dr Stephen Brusatte**, Chancellor's Fellow in Vertebrate Palaeontology, School of Geosciences – the Makdougall Brisbane Medal; **Dr Mirko Canevaro**, Chancellor's Fellow in Classics, School of History, Classics & Archaeology – the Thomas Reid Medal.

## Fellowships

### Royal Society

Four members of University staff have been elected Fellows of the Royal Society:

**Professor Wendy Bickmore**, Director of the MRC Human Genetics Unit; **Christopher Bishop**, Professor of Computer Science; **Gabriele Hegerl**, Professor of Climate System Science; and **Josephine Pemberton**, Professor of Molecular Ecology.

**Michela Massimi**, Professor of Philosophy of Science in the School of Philosophy, Psychology & Language Sciences, was awarded the society's prestigious Wilkins-Bernal-Medawar Medal for her work on communicating the philosophy of science.

### Royal Society of Edinburgh

Seven members of University staff have been made fellows of the Royal Society of Edinburgh: **Professor Tim Aitman**, Professor of Molecular Pathology and Genetics and Director of Centre for Genomic and Experimental Medicine; **Professor Christina Boswell**, Professor of Politics; **Professor Harald Haas**, Professor of Mobile Communications; **Professor Neil McKeown**, Crawford Tercentenary Professor of Chemistry; **Professor Jane Norman**, Professor of Maternal and Fetal Health; **Professor Alexander Tudhope**, Head of School of GeoSciences and Professor of Climate Studies; and **Professor Greg Walker**, Regius Professor of Rhetoric and English Literature.

### Academy of Medical Scientists

Three members of University staff were made Fellows of the Academy of Medical Scientists: **Professor David Fitzpatrick**, Joint Section Head of Disease Mechanisms in the MRC Institute of Genetics and Molecular Medicine Human Genetics Unit; **Brian Walker**, then Professor of Endocrinology and Head of the BHF Centre for Cardiovascular Science; and **Charles French-Constant**, Professor of Multiple Sclerosis Research and Dean of Research at the Centre for Regenerative Medicine.

# Financial review

It has been another year in which the University has operated in challenging circumstances, facing headwinds in UK public sector funding, more political uncertainty and higher education funding pressures. The University is well positioned for the future, and we will continue to innovate to maintain our position and reputation as an influential and world-class institution.

The University has made good progress over the past year, and we are confident that the institution is well placed financially to deal with its short and longer term commitments. While the consequences of leaving the EU are still somewhat ambiguous, our new framework, which focuses on online education and international partnerships, will ensure continued stability.

In an increasingly competitive environment we are pleased to have increased operational income by 4.3 per cent.

Total unrestricted comprehensive income for 2016/17 was £69 million, which was 55 per cent of total comprehensive income, representing funds available for reinvestment.

Funding council grants reduced by £2.7 million although there were significant offsets underlying the position. Recurrent teaching and research funding is on a reducing trend. However, funding for buildings and equipment was up by £3.4 million.

Our student population grew by six per cent in the year to 39,576 students. Tuition fee income rose by £23 million, up nine per cent. This growth was due to a seven per cent increase in international student headcount. The decline in Scottish and EU tuition fees is offset from Rest of UK (RUK) fees.

Research income from grants and contracts grew by four per cent (£11.4 million) on the previous year to £265 million.

The University achieved great success in winning research grants and contracts of £364 million, up by 36 per cent on last year's total of £268 million and 19 per cent up on the previous record of £305 million reported in 2014/15.

Nearly a fifth of the University's income, £157 million, is earned from other sources, three per cent lower (£4 million) than last year's performance.

Income from our endowment investments was £8.4 million, down seven per cent on last year, but the overall market return on investments (income plus capital appreciation) was 16 per cent (2016: 8.9 per cent). Other investment income grew by £1.6 million on last year and bank interest grew by £0.3 million to £3.4 million, an increase of 10 per cent.

Under Financial Reporting Standard (FRS) 102, revenue recognition rules mean that we include income from new donations and endowments accepted in the year. Donations increased in 2016/17 by £13 million to £20 million and we received £1.7 million from new endowments (down by £2.7 million on last year).

Group expenditure increased year on year by three per cent (£29 million), reflecting controlled investment for growth.

Staff costs as a proportion of total operating income were 53 per cent, compared to nearly 54 per cent in the prior year (excluding Research and Development Expenditure Credit). £15 million of the increase (54 per cent) was in academic and related support staff, with a further £8 million (30 per cent) invested in research grants and contracts staff as research income continued to grow.

Under FRS 102, we provide for our share of the University Superannuation Scheme recovery plan in the staff costs disclosure. In 2016/17 we have a net credit adjustment of £4.9 million as we unwind the opening provision.

Other costs, which include expenditure on subsidiary company activities, student accommodation, bursaries, premises costs and library services, have increased by £6 million (two per cent) from last year.

Depreciation accounted for five per cent of total spend (£47 million in 2016/17), up by 15 per cent (£6 million) on last year. This planned increase is due to the increased capital spend, reflecting the University's ambitious capital programme and commitment to investing in quality infrastructure and equipment.

Interest and other finance costs are £15 million. Two thirds of the charge, £9 million, is interest payable on borrowing and finance leases and £6 million is the net charge on pension scheme liabilities.

We are pleased to report continued strength in the University Group balance sheet. This strength was a key factor in securing long-term funding from which to invest in the transformational Estates Strategy and provides a strong covenant to the trustees of our pension funds. All balance sheet financial metrics are resilient.

This is the second year that we have aligned our Annual Report and Accounts to the International Integrated Reporting Framework, championed by the British Universities Finance Directors Group. Integrated reporting has provided a very useful framework within which we can demonstrate the huge value created by the University to our wide and distinctive group of stakeholders.

The above information reflects the audited accounts for the year to 31 July 2017, published in December 2017. Anyone interested in obtaining further information is invited to contact the University's Finance Department.

[www.ed.ac.uk/finance/accounts](http://www.ed.ac.uk/finance/accounts)

## Consolidated statement of comprehensive income and expenditure for the year ended 31 July 2017

	Total 2017 £m	Result before exceptional items 2016 £m	Exceptional items 2016 £m	Total 2016 £m
Income	929	889	19	908
Expenditure	873	844	–	844
<b>Operating surplus</b>	<b>56</b>	<b>45</b>	<b>19</b>	<b>64</b>
Gain on disposal of fixed assets	8	1	–	1
Gain on investments	66	29	–	29
Tax	–	–	(4)	(4)
<b>Surplus for the year</b>	<b>130</b>	<b>75</b>	<b>15</b>	<b>90</b>
Revaluations surplus	–	7	–	7
Actuarial loss	(5)	(41)	–	(41)
<b>Total comprehensive income</b>	<b>125</b>	<b>41</b>	<b>15</b>	<b>56</b>
Represented by:				
Unrestricted comprehensive income	69	–	15	15
Endowment comprehensive income	49	28	–	28
Restricted comprehensive income	7	6	–	6
Revaluation comprehensive income	–	7	–	7
	<b>125</b>	<b>41</b>	<b>15</b>	<b>56</b>

## Consolidated balance sheet as at 31 July 2017

	2017 £m	2016 £m
Fixed assets	1,617	1,493
Heritage assets	212	212
Investments	531	471
Net current assets	266	255
<b>Total assets less current liabilities</b>	<b>2,626</b>	<b>2,431</b>
Creditors: amounts falling due after more than one year	(319)	(257)
Pension provisions	(261)	(254)
<b>Total net assets</b>	<b>2,046</b>	<b>1,921</b>
<b>Restricted reserves</b>		
Income and expenditure reserve – endowment reserves	392	343
Income and expenditure reserve – restricted reserves	48	41
<b>Unrestricted reserves</b>		
Income and expenditure reserve – unrestricted reserves	1,398	1,329
Revaluation reserve	208	208
<b>Total reserves</b>	<b>2,046</b>	<b>1,921</b>

# Appointments

Appointments commenced between 1 August 2016 and 31 July 2017

## College of Arts, Humanities & Social Sciences

### Personal Chairs

#### Professor Rowena Arshad

Personal Chair of Anti-Racist and Multicultural Education

#### Professor Stefan Bilbao

Personal Chair of Acoustics and Audio Signal Processing

#### Professor Stephen Bowd

Personal Chair of Early Modern History

#### Professor Mary Brennan

Personal Chair of Food Marketing and Society

#### Professor Matthew Chrisman

Personal Chair of Ethics and Epistemology

#### Professor Paul Du Plessis

Personal Chair of Roman Law

#### Professor Adam Fox

Personal Chair of Social History

#### Professor Alison Koslowski

Personal Chair of Social Policy and Research Methods

#### Professor Stephen Neff

Personal Chair of War and Peace

#### Professor Larissa Ryazanova-Clarke

Personal Chair of Russian and Sociolinguistics

#### Professor Kenny Smith

Personal Chair of Evolutionary Linguistics

#### Professor Genevieve Warwick

Personal Chair of History of Art

#### Professor Nuala Zahedieh

Personal Chair Economic and Social History

### Professorships

#### Professor Francis Greene

Chair of Entrepreneurship

#### Professor Aisha Holloway

Chair of Nursing Studies

#### Professor Nasar Meer

Chair of Race, Identity and Citizenship

#### Professor JP Singh

Chair of Culture and Political Economy

### Honorary Professors

#### Professor Peter Aspinall

Edinburgh College of Art

#### Professor Michael Clarke

Edinburgh College of Art

#### Professor Guy Jubb

Business School

#### Professor Chen Liming

School of Literatures, Languages & Cultures

#### Professor Li Yining

Business School

## College of Medicine & Veterinary Medicine

### Personal Chairs

#### Professor Colin Duncan

Personal Chair of Reproductive Medicine and Science

#### Professor Ross Houston

Personal Chair of Aquacultural Genetics

#### Professor Keisuke Kaji

Personal Chair of Biology of Reprogramming

#### Professor Simone Meddle

Personal Chair of Behavioural Neuroendocrinology

#### Professor Harish Nair

Personal Chair of Paediatric Infectious Diseases and Global Health

#### Professor Hilary Pinnock

Personal Chair of Primary Care Respiratory Medicine

#### Professor Martin Taylor

Personal Chair of Evolutionary Genomics

#### Professor Albert Tenesa

Personal Chair of Quantitative Genetics

#### Professor Mike Watson

Personal Chair of Bioinformatics and Computational Biology

#### Professor Christopher Weir

Personal Chair of Medical Statistics and Clinical Trials

#### Professor Anna Williams

Personal Chair of Regenerative Neurology

#### Professor Jim Wilson

Personal Chair of Human Genetics

### Professorships

#### Professor Liz Baggs

Chair of Food and Environmental Security

#### Professor Appolinaire Djikeng

Chair of Tropical Livestock Genetics and Health

#### Professor David Dockrell

Chair of Infection Medicine

#### Professor Giles Hardingham

City of Edinburgh Chair of Pharmacology

#### Professor John Norrie

Chair of Medical Statistics and Trial Methodology

#### Professor Geoff Simm

Chair of Global Agriculture and Food Security

### Honorary Professors

#### Professor Lesley Colvin

Deanery of Clinical Sciences

#### Professor Steve Cunningham

Deanery of Clinical Sciences

#### Professor John Gillies

Deanery of Molecular, Genetic & Population Health Sciences

#### Professor Adam Hill

Deanery of Clinical Sciences

#### Professor Aileen Keel

Deanery of Molecular, Genetic & Population Health Sciences

#### Professor Ian Russell

Deanery of Molecular, Genetic & Population Health Sciences

#### Professor Roshini Sanders

Deanery of Clinical Sciences

#### Professor Richard Sharpe

Deanery of Clinical Sciences

#### Professor Natalie Waran

Royal (Dick) School of Veterinary Studies

#### Professor Lesley Young

Royal (Dick) School of Veterinary Studies

## College of Science & Engineering

### Personal Chairs

#### Professor Marialuisa Aliotta

Personal Chair of Experimental Nuclear Astrophysics

#### Professor David Aspinall

Personal Chair in Software Safety and Security

#### Professor Tom Bruce

Personal Chair of Coastal and Maritime Hydromechanics

#### Professor Nick Colegrave

Personal Chair of Experimental Evolution

#### Professor Ruth Doherty

Personal Chair of Atmospheric Sciences

#### Professor Kousha Eteessami

Personal Chair of Algorithms, Games, Logic, and Complexity

#### Professor Vittorio Ferrari

Personal Chair of Visual Learning

#### Professor Andrew Goryachev

Personal Chair of Computational Cell Biology

#### Professor Catherine Heymans

Personal Chair of Observational Cosmology

#### Professor Elham Kashafi

Personal Chair of Quantum Computing

#### Professor Vasileios Koutsos

Personal Chair of Soft Materials and Surfaces

#### Professor Robert Mann

Personal Chair of Survey Astronomy

#### Professor Simon Mudd

Personal Chair of Earth Surface Processes

#### Professor Lev Sarkisov

Personal Chair of Molecular Thermodynamics

### Professorships

#### Professor Romeel Dave

Chair of Physics

#### Professor Stephen Finney

Chair in Power Electronics

#### Professor Grunde Jomaas

BRE Chair of Fire Safety Engineering

#### Professor Spyros Karamanos

Chair of Structural Engineering

#### Professor Simon Kelley

Chair of Isotope Geochemistry

#### Professor Finn Lindgren

Chair of Statistics

#### Professor Murray Roberts

Chair in Applied Marine Biology and Ecology

### Honorary Professors

#### Professor Sarah Curtis

School of GeoSciences

#### Dr Francisco Garcia

School of Informatics

#### Professor Paul Glendinning

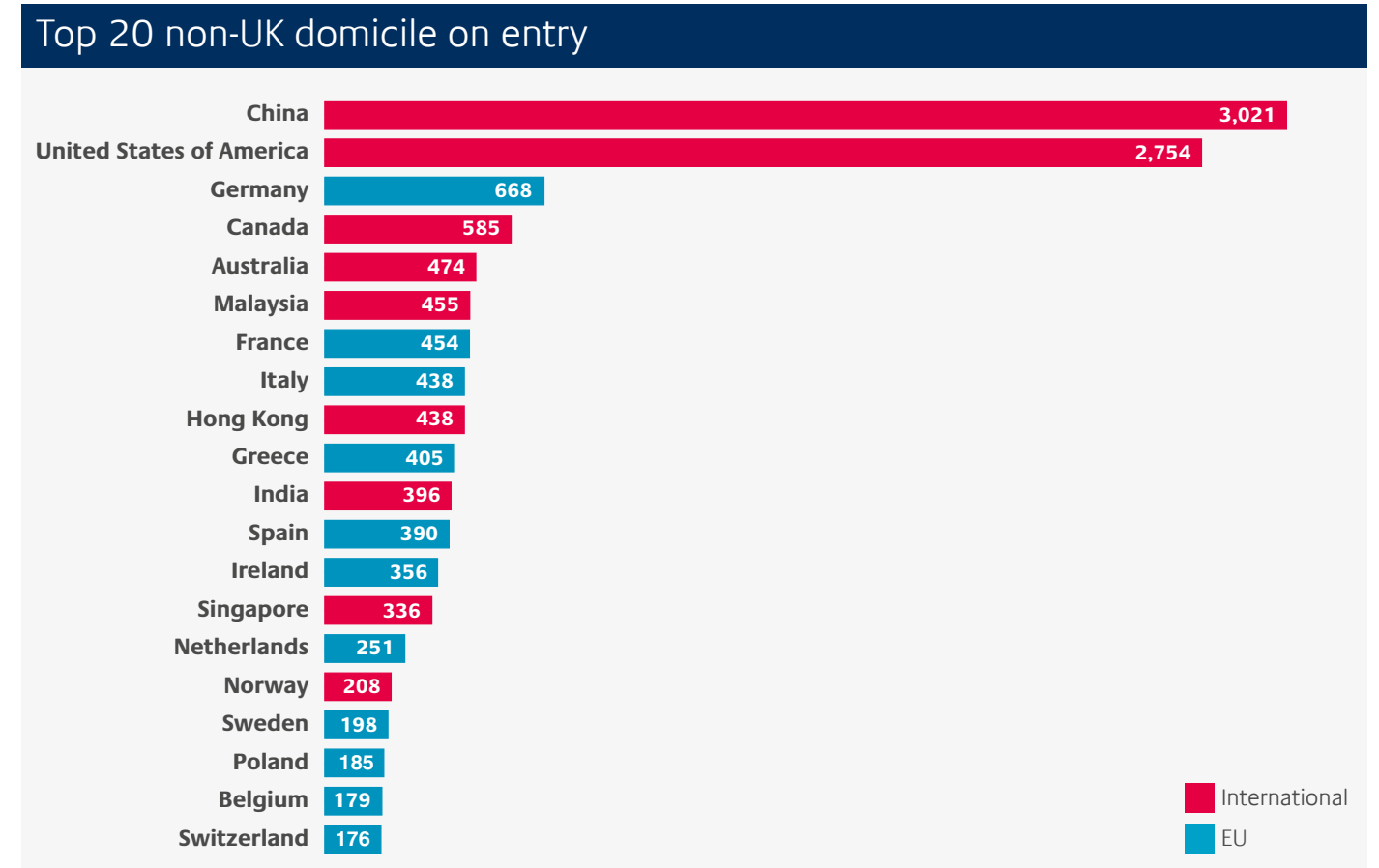
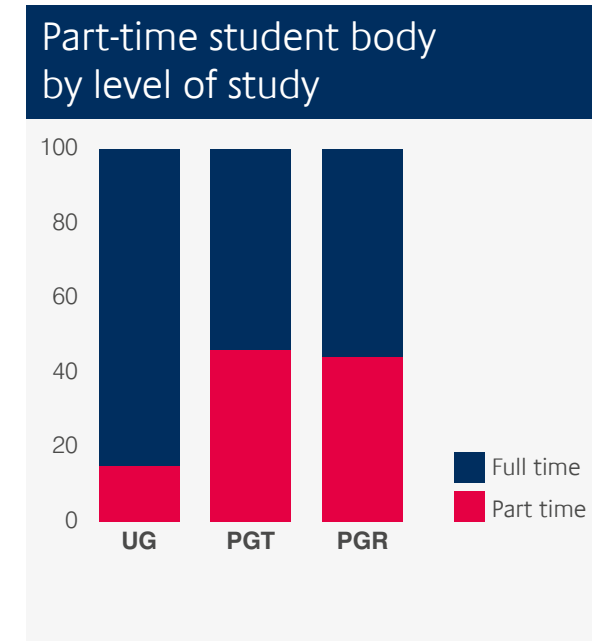
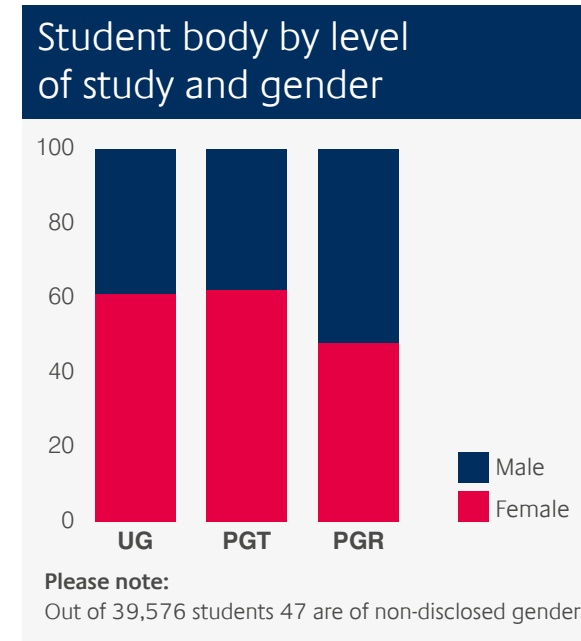
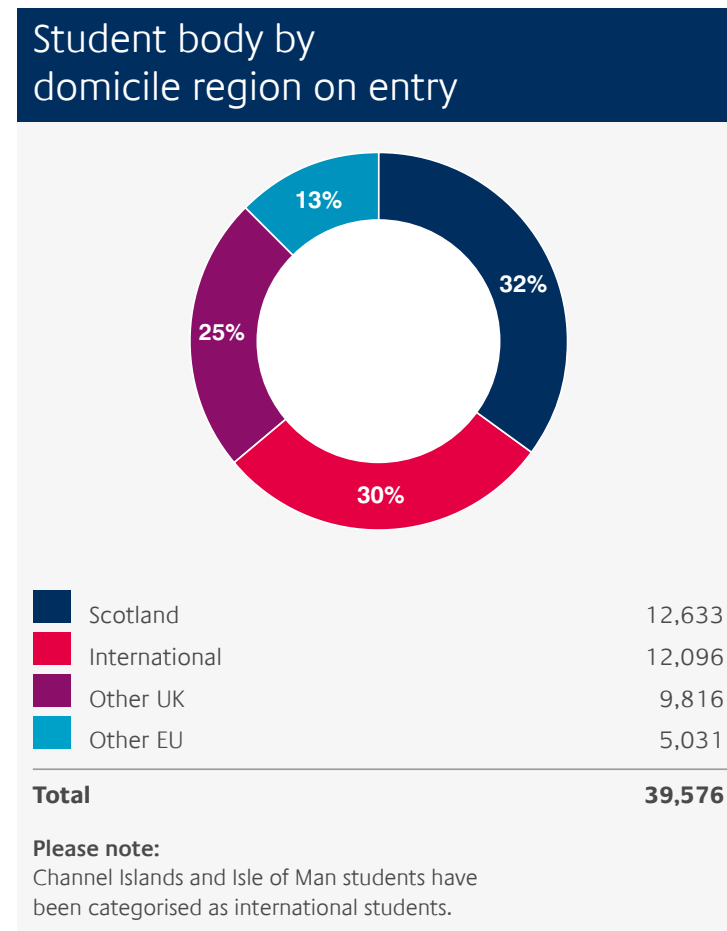
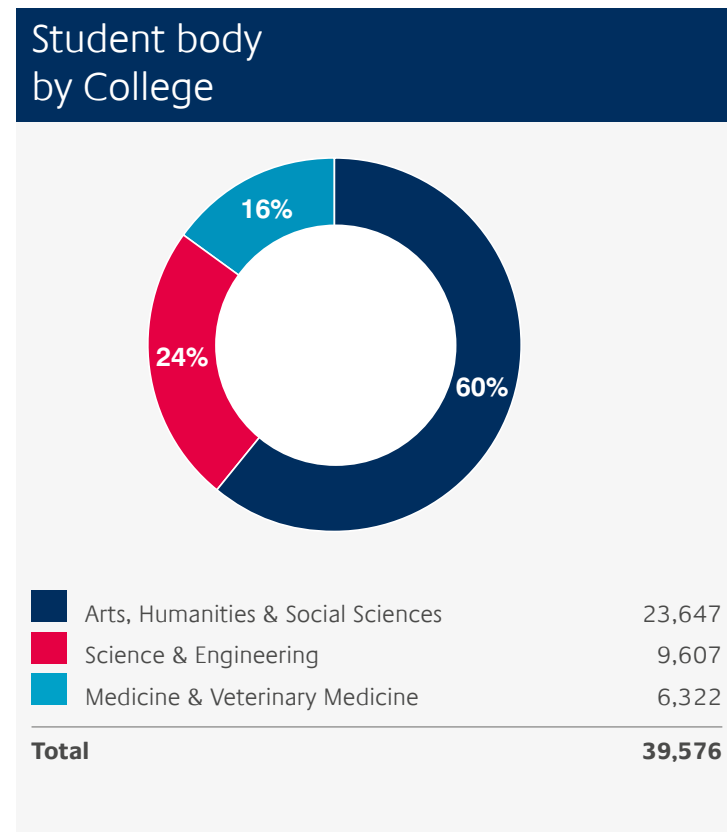
School of Mathematics

# Appendix 1

## Student numbers

Level of study by College				
	UG	PGT	PGR	Total
Arts, Humanities & Social Sciences	15,910	5,598	2,115	<b>23,647</b>
Science & Engineering	6,286	1,256	2,065	<b>9,607</b>
Medicine & Veterinary Medicine	3,033	2,111	1,178	<b>6,322</b>
	25,229	8,965	5,358	<b>39,576</b>

UG undergraduate  
PGT postgraduate taught  
PGR postgraduate research



**Please note:**  
The figures above represent all students matriculated during the session, with the exception of those exiting or interrupting their studies within five weeks of the first semester start date. Visiting students, part-time and distance learning students, and students on collaborative programmes are included. Domicile on entry is declared by the student when first matriculating onto their programme.

# Appendix 2

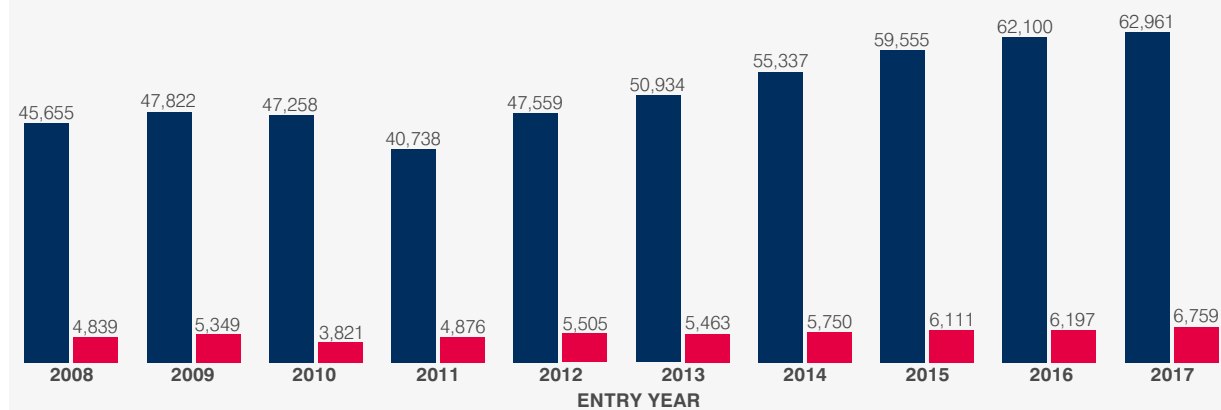
## Undergraduate applications and acceptances

2008**	Men	Women	Total	
Applications*	21,193	24,462	45,655	
Acceptances	2,221	2,618	4,839	
2009	Men	Women	Total	
Applications*	22,523	25,299	47,822	
Acceptances	2,479	2,870	5,349	
2010	Men	Women	Total	
Applications*	21,601	25,657	47,258	
Acceptances	1,631	2,190	3,821	
2011	Men	Women	Total	
Applications*	18,549	22,189	40,738	
Acceptances	1,981	2,895	4,876	
2012	Men	Women	Total	
Applications*	20,371	27,188	47,559	
Acceptances	2,281	3,224	5,505	
2013	Men	Women	Total	
Applications*	21,707	29,227	50,934	
Acceptances	2,286	3,177	5,463	
2014	Men	Women	Total	
Applications*	22,984	32,353	55,337	
Acceptances	2,365	3,385	5,750	
2015	Men	Women	Total	
Applications*	24,563	34,898	59,555	
Acceptances	2,395	3,714	6,111	
2016	Men	Women	Total	
Applications*	25,345	36,755	62,100	
Acceptances	2,452	3,745	6,197	
2017	Non-disclosed gender	Men	Women	Total
Applications*		25,735	37,218	62,961
Acceptances	<5	2,594	4,161	6,759

### Please note:

\* Number of applications received in each cycle for entry in the same year or deferred entry the following year.

\*\* UCAS reduced the number of applications per applicant from six to five from the 2008 entry cycle.



### Please note:

Figures for 2011 include Edinburgh College of Art (ECA) acceptances but exclude ECA applications. Figures from 2012 onwards include both ECA applications and acceptances.

■ Applications  
■ Acceptances

# Appendix 3

## Benefactions

Giving from 1 August 2016 to 31 July 2017

The University is grateful to all donors, including those who wish to remain anonymous.

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# Appendix 3

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# Appendix 4

## Research grants and other sources of funding

Sponsor type	Sum of award
<b>EU – Government</b>	<b>£38,877,363</b>
European Commission	£38,877,363
<b>EU – Industry</b>	<b>£1,495,495</b>
Airbus Operations GmbH	£19,215
Akzo Nobel Coatings International B.V.	£45,252
Apnea AB	£103,308
Boehringer Ingelheim GmbH	£20,652
CorPower Ocean AB	£40,000
Genonica S.A.U.	£20,000
Hendrix Genetics	£116,892
Inter-SAGE Baie du Mont-Saint-Michel	£3,000
Lipogems International SpA	£92,136
Network Engine for Objects in Lund	£53,718
Novem Car Interior Design GmbH	£25,000
PledPharma AB	£373,064
Royal Canin	£56,257
TriaGnoSys GmbH	£120,000
UCB Pharma S.A.	£123,510
Volvo Construction Equipment	£283,490
<b>EU – Other</b>	<b>£5,619,832</b>
Associazione Italiana Sclerosi Multipla	£61,458
BIAL Foundation	£33,462
Eidgenössische Materialprüfungs- und Forschungsanstalt (EMPA)	£40,000
European Energy Research Alliance (EERA) AISBL	£6,667
European Respiratory Society	£34,615
European Space Agency	£38,277
Fondation Leducq	£3,960,004
Foundation National Contest for Life	£38,462
Human Frontier Science Program Organization	£326,492
Humanities in the European Research Area	£496,546
National Center for Scientific Research, The	£147,308
Organisation for Economic Co-Operation and Development	£27,456
Research Council of Norway, The	£141,083
Social Sciences and Humanities Research Council of Canada	£12,428
Swedish Research Council	£151,055
Umeå University	£19,298
University of Oslo	£5,000
University of Stavanger	£76,720
Zentrum für Baltische und Skandinavische Archäologie (Centre for Baltic and Scandinavian Archaeology)	£3,500

<b>Overseas – Charities</b>	<b>£8,226,643</b>
Alzheimer's Association	£947,873
Animal Charity Evaluators	£6,789
Bill and Melinda Gates Foundation	£5,549,911
Brain & Behavior Research Foundation	£48,276
CHDI Foundation Inc	£7,757
Found Animal Charity	£655,601
Gordon and Betty Moore Foundation	£25,810
John Templeton Foundation	£278,739
Melanoma Research Alliance	£120,000
Melville Charitable Trust	£166,550
National Gallery of Art	£34,483
National Geographic Society	£16,667
NCBI National Council for the Blind of Ireland	£27,931
The Henry Luce Foundation	£274,194
The Nature Conservancy	£32,163
The Newberry	£1,724
The Research Society for Victorian Periodicals	£13,775
The Society for Comparative Endocrinology	£4,827
Wenner-Gren Foundation	£13,574
<b>Overseas – Government and Universities</b>	<b>£2,437,250</b>
Academy of Korean Studies, The	£10,344
CARB-X	£561,340
Columbia University	£110,000
Defense Advanced Research Projects Agency	£24,087
Department of Defense	£125,792
DIPLOCAT Public Diplomacy Council of Catalonia	£30,429
Georgetown University	£49,090
Japan Foundation Endowment Committee, The	£2,220
Johns Hopkins University	£76,479
McGill University	£33,813
Ministry of Culture, Republic of China (Taiwan)	£15,172
National Institute of Food and Agriculture	£195,613
National Institute of Standards and Technology	£315,741
National Science Foundation	£25,862
NordForsk	£21,643
Office of Naval Research	£80,762
Project Management Institute, Inc	£11,933
Regents of the University of California	£12,753
Research Foundation of City	

University of New York	£10,919
Social Trends Institute	£21,429
Terra Foundation for American Art	£83,000
The George Institute for Global Health	£16,454
The Japan Foundation	£9,739
UK-India Education and Research Initiative	£414,800
United States Department of Agriculture	£95,272
University of Alberta	£27,500
University of California	£6,061
University of Sydney	£5,405
US Army Research Laboratory	£15,919
Yale University	£27,681
<b>Overseas – Industry</b>	<b>£6,380,582</b>
Agilent	£22,883
Biogen Idec	£535,754
Biological Process Science and Technology Co, Ltd	£180,000
Clene Nanomedicine TM, Inc	£103,000
Cobb-Vantress Inc	£47,441
Corning Incorporated	£92,903
Daiichi Sankyo Company, Limited	£8,000
DePuy Synthes	£45,000
Galios Inc	£61,764
Genome Alberta	£15,789
Google Inc	£159,131
Huawei Technologies Co, Ltd	£2,831,537
Input Output HK Limited	£861,362
Intercept Pharmaceuticals, Inc	£385,994
LEAP Therapeutics Inc	£326,308
Life Technologies Corporation	£14,483
Lockheed Martin	£125,000
Merck Inc	£271,743
Novartis Foundation	£5,600
Pfizer Inc	£11,100
Procter & Gamble	£15,229
Retrophin	£55,357
Synopsys International Limited	£85,231
Thales UK Limited	£27,000
Zoetis	£92,973
<b>Overseas – Other</b>	<b>£2,016,079</b>
FIL Foundation	£947,873
National Institutes of Health	£286,398
Rett Syndrome Research Trust	£751,119
RIKEN	£20,690
World Health Organization	£10,000
<b>UK – Charities and Learned Societies</b>	<b>£85,711,609</b>
Academy of Medical Sciences	£48,743

Alan Turing Institute, The	£1,887,736
Alcohol Research UK	£57,511
Alzheimer's Research UK	£826,065
Alzheimer Scotland	£100,000
Alzheimer's Society	£610,601
Anatomical Society	£201,190
Arthritis Research UK	£310,706
Association for Public Service Excellence Scotland	£8,922
Association of Physicians of Great Britain and Ireland	£39,140
Asthma UK	£50,000
Bailey Thomas Charitable Fund	£90,860
Binks trust	£2,500
Biochemical Society	£2,000
Biomathematics and Statistics Scotland, Moredun Research Institute, The	£35,450
Brain Tumour Charity, The	£210,026
BRE Trust	£442,000
Breakthrough Breast Cancer	£106,878
Breast Cancer Campaign and Breakthrough Breast Cancer	£73,698
Breast Cancer Now	£216,840
Breast Cancer Research Trust	£100,000
British Association for American Studies	£1,570
British Heart Foundation	£5,012,096
British Institute of Persian Studies	£11,333
British Neuropsychological Society	£5,000
British Skin Foundation	£9,600
British Society for Neuroendocrinology	£5,000
British Teilhard Association, The	£2,650
Cancer Research UK	£8,326,603
Carnegie Trust for the Universities of Scotland	£286,639
Centre for Ecology and Hydrology	£28,750
Chartered Society of Physiotherapy	£6,653
Children with Cancer UK	£18,000
Children's Cancer and Leukaemia Group	£9,600
Clark Foundation for Legal Education	£3,987
Colt Foundation	£261,053
Crohn's and Colitis UK	£74,597
Cunningham Trust	£82,640
Cure Parkinson's Trust	£59,878
Cystic Fibrosis Trust	£237,879
Daiwa Anglo-Japanese Foundation	£3,000
Daphne Jackson Trust	£34,446
Darwin Trust of Edinburgh	£795,000
Diabetes Research & Wellness Foundation	£160,670
Diabetes UK	£151,722
Digital Health Institute	£197,309
Dogs Trust	£119,572
Dr Hadwen Trust	£3,880
Dunhill Medical Trust	£185,751
Edinburgh & Lothians Health Foundation	£479,194
Epilepsy Research UK	£250,000
Experimental Psychology Society	£4,500

Fight for Sight	£18,814
Fiona Elizabeth Agnew Trust	£9,128
Fire Service Research & Training Trust, The	£61,947
Froebel Trust	£14,997
Genetics Society, The	£4,700
Great Britain Sasakawa Foundation	£12,100
Heritage Lottery Fund	£9,500
Hope Trust, The	£49,328
Horse Trust – Home of Rest for Horses	£100,344
Institute of Occupational Medicine	£3,000
Institute of Physics	£1,000
International Institute for Environment and Development	£10,350
Juvenile Diabetes Research Foundation	£2,031,828
Kidney Research UK	£1,376,230
Leadership Foundation for Higher Education	£12,000
Leukaemia & Lymphoma Research	£210,008
Leverhulme Trust	£2,562,997
Life Changes Trust	£2,310
Marie Curie Cancer Care	£310,698
Medical Research Scotland	£233,284
Medical Research Scotland (SHERT)	£360,596
Medical Schools Council	£30,160
Millar-McKenzie Trust	£2,500
Motor Neurone Disease Scotland	£294,869
Multiple Sclerosis International Federation	£32,000
Multiple Sclerosis Society	£348,249
National Eye Research Centre	£8,925
National Museums Scotland	£6,500
National Society for the Prevention of Cruelty to Children	£79,900
NHS Blood and Transplant	£6,748
Oak Foundation	£349,997
Ogden Trust	£18,019
Orchid	£35,210
Oxfam Scotland	£1,500
Paget's Association	£30,000
Pathological Society	£36,048
Petplan Charitable Trust	£14,800
PetSavers, British Small Animal Veterinary Association	£991
PSC Support	£7,000
Regional Studies Association	£1,029
Rosetrees Trust	£127,600
Royal Academy of Engineering	£299,403
Royal College of Physicians of Edinburgh	£2,000
Royal College of Surgeons Edinburgh	£68,696
Royal Commission for the Exhibition of 1851	£149,558
Royal Society	£3,057,636
Royal Society of Edinburgh	£375,694
Royal Society, Wellcome Trust	£2,176,553
Sanofi US	£62,802
Scottish SPCA	£33,800
Sick Kids Friends Foundation	£38,367
Simons Foundation	£20,000,000

Society for Applied Microbiology	£3,408
Society for Endocrinology	£22,530
Society for Reproduction and Fertility	£15,205
Society for the Advancement of Management Studies	£4,500
Spina Bifida Hydrocephalus Scotland	£20,000
Strathmartine Trust	£9,748
Stroke Association	£799,807
Sylvia Waddilove Foundation UK	£2,000
Tenovus – Scotland	£11,800
The John S Cohen Foundation	£2,000
The Rooney Plastic Surgery and Reconstructive Surgery Trust	£95,493
The Shackleton Scholarship Fund	£2,500
Tommys Campaign	£420,000
Tropical Health and Education Trust (THET)	£111,890
Universities' China Committee in London	£1,500
Urology Foundation	£51,526
Waterloo Foundation, The	£46,261
Wellbeing of Women	£257,729
Wellcome Trust	£26,492,561
<b>UK – Government</b>	<b>£40,632,114</b>
Advanced Propulsion Centre UK Limited	£30,000
Air Force Office of Scientific Research	£316,894
British Council	£386,500
Chief Scientist Office	£4,285,680
Children's Commissioner for England	£940
Commonwealth Scholarships	£158,577
Defence Science and Technology Laboratory	£737,345
Department for Environment, Food and Rural Affairs	£81,271
Department for International Development	£103,953
Department of Business Innovation and Skills	£43,240
Department of Health	£13,236,448
Forest Research	£34,646
GlaxoSmithKline, Scottish Funding Council	£33,138
Government Communications Headquarters	£122,274
Historic Scotland	£13,943
Knowledge Transfer Partnership	£73,645
Met Office	£701,752
National Institute for Health Research	£14,796,714
National Records of Scotland	£36,886
NHS Greater Glasgow and Clyde Board	£7,224
NHS Health Scotland	£5,000
NHS Scotland	£100,078
Renfrewshire Council	£1,457
Scottish Enterprise	£758,365
Scottish Funding Council	£1,678,241
Scottish Government	£699,587
South Lanarkshire Council	£6,731

# Appendix 4

## Research grants and other sources of funding (continued)

Stratified Medicine Scotland – Innovation Centre	£648,000	Leonardo MW Ltd	£23,333	<b>UK – Universities etc.</b>	<b>£3,387,446</b>
UK Space Agency	£1,533,586	LTS International Limited	£107,537	ARUK Scotland Network Centre	£13,499
<b>UK – Health Authorities</b>	<b>£352,695</b>	LumiraDX Technology Limited	£12,924	British Association for Japanese Studies	£9,995
Health Research Authority	£110,425	MARS Chocolate UK Ltd	£100,000	Cardiff University	£35,571
Leeds Teaching Hospital	£6,685	Mentholatum Company Ltd, The	£15,000	Edinburgh Napier University	£5,000
NHS Education for Scotland	£19,985	Microsoft Research Ltd	£111,450	Energy Technology Partnership (ETP)	£11,052
NHS Highland	£8,586	National Physical Laboratory	£27,000	Faclair na Gaidhlig (Dictionary of the Scottish Gaelic Language)	£22,010
NHS Lothian	£207,014	Nosebleed Interactive Ltd	£36,272	Imperial College London	£45,380
<b>UK – Industry</b>	<b>£6,966,006</b>	Nova Innovation Ltd	£25,000	Institute of Latin American Studies	£1,800
AbbVie Ltd	£892,737	Novartis Pharmaceuticals UK Ltd	£172,014	Manchester Metropolitan University	£2,845
Albatern	£40,000	Offshore Renewable Energy Catapult	£40,000	Scottish Crucible	£4,500
Aquila BioMedical	£10,000	Optos plc	£30,000	Scottish Imaging Network: A Platform for Scientific Excellence	£45,000
ARM Limited	£35,000	Pearson	£9,427	University of Aberdeen	£73,461
Artemis Intelligent Power Ltd	£25,000	QinetiQ Group plc	£113,702	University of Birmingham	£138,384
ARUP	£47,995	Route Monkey	£5,000	University of Dundee	£2,013,248
AstraZeneca	£580,327	Samsung	£60,400	University of Glasgow	£22,464
AXA	£96,154	Sanofi Pasteur MSD Limited	£687,419	University of Leicester	£358,277
Becton Dickinson	£15,760	Scottish Water	£23,333	University of Manchester	£156,297
Bloomberg	£43,369	Selex ES Ltd	£36,918	University of Nottingham	£152,191
CelluComp Ltd	£7,500	Shop Direct Finance Company Limited	£74,000	University of Oxford	£10,000
CENSIS: Innovation Centre for Sensor and Imaging Systems	£61,357	Siemens Healthcare Limited	£30,000	University of Sheffield	£25,447
Centre for Process Innovation Limited	£142,148	Standard Life Investments Limited	£59,996	University of Southampton	£61,883
Concrete Marine Solutions	£40,000	STMicroelectronics	£250,823	University of St Andrews	£9,912
Costain Oil Gas & Process Ltd	£71,504	Sustainable Marine Energy Ltd	£80,000	University of Stirling	£418
Digital Catapult	£40,000	Toyota	£119,695	University of Strathclyde	£17,415
DNV GL UK Ltd	£40,000	UCB	£10,000	University of Warwick	£141,396
ECO Animal Health	£90,833	Wave Energy Scotland Limited	£731,585	Welsh Thoracic Society	£10,000
Edinburgh Molecular Imaging Ltd	£10,000	Zyba Renewables Ltd	£90,000		
Ericsson Media Services UK Limited	£52,500	<b>UK – Research Councils</b>	<b>£171,141,994</b>	<b>Grand Total</b>	<b>£373,245,107</b>
European Marine Energy Centre	£40,000	Arts and Humanities Research Council	£2,109,030		
Ferring Pharmaceuticals	£81,894	Biotechnology and Biological Sciences Research Council	£88,664,715		
Floating Wind Turbines Ltd	£40,000	Bowel & Cancer Research	£32,000		
GALVmed	£41,502	British Academy	£814,750		
Genius Foods Limited	£40,000	Economic and Social Research Council	£5,953,372		
Geno	£126,059	Engineering and Physical Sciences Research Council	£31,156,655		
Genus plc	£50,000	Innovate – UK	£2,059,438		
GlaxoSmithKline	£783,128	Medical Research Council	£30,159,815		
GlycoMar Ltd	£38,900	National Centre for the Replacement, Refinement and Reduction of Animals in Research	£186,334		
Golder Associates (UK) Ltd.	£3,000	Natural Environment Research Council	£8,404,103		
Hologic Ltd	£20,000	Research Councils United Kingdom	£237,417		
Howden Group Limited	£25,518	Science and Technology Facilities Council	£1,364,364		
Hyaltech Ltd	£100,000				
iMC Worldwide	£87,450				
INEOS Manufacturing Scotland	£20,000				
International Paint Ltd	£13,544				
Leica Biosystems	£30,000				

**Note:** The above list sets out the total project value of research grants funded from these sponsors. The sponsor will have contributed this whole amount, with the exception of some governmental sources (including research councils) and charitable sources, who fund the majority, with the balance being received indirectly via the Scottish Funding Council.

**Please also note:** rounding has been applied to the figures.





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