Inside

McEwan Hall reopens
The battle against brain cancer
A very European union
Edinburgh College of Art
Supporting Chemistry
Contents

04 News round-up
We report on the University’s role in the Edinburgh and South-East Scotland City Deal, the reopening of St Cecilia’s Hall and a project that aims to empower tutors.

06 A meeting of minds
How philanthropic funding from the Simons Foundation will help researchers better understand autism spectrum disorders.

10 The gift of an Edinburgh education
We talk to Carmen Hesketh, an undergraduate student of History who has been receiving financial help for her studies that she says has changed her life.

12 State of the art
A look at how an increasing culture of philanthropic support is allowing Edinburgh College of Art to thrive.

16 Fighting the invisible enemy
How scientists are combining research into solar radiation with eye medicine to improve understanding of eye damage caused by sunlight.

18 A very European union
The University’s global alumni groups are going from strength to strength. We talk to the co-presidents of the Edinburgh University Brussels Society.

20 Coral relief
Student Amber Carter reveals how funding has enabled her to discover ways to save a magnificent coral site from destruction.

22 A community of support
A look at some of the ways that members of the wider community are fundraising for University projects.

23 A pathway to the future
The iconic McEwan Hall has reopened with the addition of the Pathway to Enlightenment, recognising supporters of the Hall’s redevelopment.

26 The battle against brain cancer
We talk to University supporter Jillian Elgin and researcher Professor Steve Pollard about the work being carried out in brain cancer research.

28 Power to the people
How an alumni-funded grant helped a team of students bring solar-powered charging panels to refugees in Greece.

30 It’s pure chemistry
A legacy gift to the School of Chemistry is having real impact on both staff and students. Professor Colin Pulham tells us how.

32 Voices of experience
Former student Lucy Hughes and her mentor, alumna Catherine Thomas, share what they have gained from their relationship.

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And then every so often a project will come along that manages to encompass everything we are working to achieve in one single, coherent vision. The announcement this summer of the Edinburgh and South East Scotland City Deal, which will see the University play a pivotal role in major publicly-funded development initiatives, is just such a scenario. Putting the University at the very heart of the region’s future at a time of great change and developments in technology, infrastructure and culture, represents a tremendous vote of confidence in how this University can work in partnership across the region to drive innovation and economic growth in the future.

The fact that both UK and Scottish Governments are backing our shared goal of making Edinburgh the data capital of Europe is testament to the many outstanding teams of researchers, policy influencers and students across campus and beyond. It is also evidence of the impactful vision of Professor Sir Tim O’Shea, who demits Office after 15 years shortly after this goes to print, having done so much among other things to draw together outstanding clusters of expertise in data science, machine learning and robotics at the University.

Note to friends

The field of advancement in higher education is a varied and fulfilling one. Those of us working in it have the pleasure of connecting outstanding students and researchers with those who believe in their work and want to see its impact amplified. Edinburgh is full of such students and staff who want to make a positive difference for the community and, indeed, the world. I hope that as you read through this magazine’s inspiring articles on cancer research, eye health and the impact of our arts courses, these pages reinforce for you the University’s varied and wide-reaching influence.

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But our vision for the future is still keenly apparent – the new conference suites, accessibility improvements, and striking new entrance pavilion will help ensure that McEwan Hall remains at the heart of University life, and our connections to wider civic life in Edinburgh, for generations to come.

So many of you have also contributed with warmth and generosity to the O’Shea Global Scholars Initiative which will allow us to deepen and embed the support we can give to scholars locally and globally who would benefit from an Edinburgh education. This is of course in honour of Sir Tim’s outstanding commitment to this agenda over many years. Do take time to read Carmen’s story on pages 10–11, an outstanding talent who is directly benefitting from our shared desire to make Edinburgh a consistently first-class university for the best and the brightest.

We reached a new record high last year in terms of support from alumni, friends and philanthropists. I hope you share our sense of pride in what you are helping us to achieve, and thank you sincerely for your continued and generous support.

Chris Cox
Vice-Principal Philanthropy and Advancement and Executive Director of Development and Alumni
The University of Edinburgh is set to be a key partner in a major initiative that seeks to make Edinburgh and its surrounding region the European leader for applying data science to products and services.

The move to transform the region into a digital powerhouse is a key strand of the recently announced Edinburgh and South-East Scotland City Deal.

Under the agreement, significant investment from the UK and Scottish Governments will be provided for major infrastructure projects in Edinburgh, the Lothians, Fife and the Borders.

The University will partner with local authorities, schools and employers across the region to create the workforce of the future by supporting a massive increase in the provision of data skills.

It will also develop and encourage new entrepreneurs to form high growth companies, and engage with existing companies and the public sector to apply data expertise to help deliver high quality products and services.

With the University at its centre, the City Deal’s data driven innovation (DDI) programme will give businesses and people in Edinburgh and its surrounding areas maximum advantage in the data revolution.

It will seek to equip young people from all backgrounds to succeed in the digital economy, to enable them to develop the skills to better use and apply data in their personal and working lives.

Over 10 years, the University and its partners will train 100,000 people in the application of data across the region’s major industry sectors. It will work with the private and public sectors to grow awareness of data science’s implications. As it takes effect, the programme will enable both established and start-up businesses to capture these opportunities.

The DDI programme will also help people in the wider community to understand the benefits and challenges associated with the use of data, enabling them to make use of novel public and commercial services.

Scotland’s oldest purpose-built concert venue – St Cecilia’s Hall – has reopened after a two-year, £6.5 million redevelopment.

The historic University building has been thoughtfully restored, transforming its concert room and music museum into an elegant, engaging space.

The refurbished venue, in the city’s Old Town, is home to the University’s world-class collection of musical instruments. It gives people a chance to learn about how the roles of musical instruments have changed over time, and hear them performed.

The striking Sypert Concert Room has retained its distinctive oval shape and will host an eclectic array of performances for up to 200 people.

Page\Park Architects have taken inspiration from the shapes and intricate craftsmanship found in the collection to create a truly unique building.

The new entrance on Niddry Street invites visitors in from the Royal Mile with a distinctive gate in the silhouette of a harpsichord, while decorative details from instruments appear throughout the building’s interior.

More information on the Hall and Museum can be found at www.stcecilias.ed.ac.uk
Empowering tutors

Alumni donations have been helping postgraduate history students become inspiring tutors to their undergraduate counterparts.

Catriona Ellis was working on her PhD in childhood in late-colonial south India when she took on the role of part-time tutor to undergraduate students. Part of a programme that gives postgraduate students the chance to gain valuable teaching experience while simultaneously enhancing the effectiveness of the undergraduate learning experience with experienced tutoring, Catriona then came up with the idea of creating a website that would empower tutors like herself to become better teachers.

She applied for a Principal’s Teaching Award, a scheme funded by unrestricted donations to the University and run by the Institute for Academic Development (IAD). The scheme awards financial support to activities that will make a significant contribution to the enhancement of learning and teaching at the University.

Receiving £1,000 from the scheme, Catriona set about designing a website that would have tangible benefit to tutors. She had discussions with fellow postgraduate tutors about the information they felt would benefit their teaching, and held consultations with a number of undergraduates who provided valuable insight into their learning experience in History, and who were able to nominate staff whom they believed offered an effective teaching service.

The resulting website reflects Catriona’s findings. Sections covering tutoring, lecturing, student engagement, assessment and feedback, and studying History at Edinburgh, combine to create a space where teaching is placed in the context of the wider undergraduate experience. Useful materials, resources – such as access to pastoral support guidance – and podcasts are available and tutors are encouraged to share tips and best practice ideas with each other.

“As tutors we all learn from the practical experience of teaching, of taking responsibility for facilitating the learning of others,” says Catriona. “But this new website also provides an honest approach for those starting out in tutoring through the real experiences of peers.

“The funding from donors has been so vital in achieving this. Supporting small, concise projects that have real impact on students is so crucial and can make a huge difference to a students’ learning.”

More information on the Principal’s Teaching Award Scheme can be found on the IAD website: www.ed.ac.uk/institute-academic-development

What are unrestricted donations?

When you donate to the University without specifying a specific area to support, your unrestricted donation will be channelled into an area of greatest need. This means innovative projects such as Catriona’s are able to receive vital funding that otherwise might not have been available.
“We will learn how brains mature, and gain valuable insights into the developmental origins of autism.”

PROFESSOR PETER KIND
PROFESSOR OF DEVELOPMENTAL NEUROSCIENCE
A meeting of minds

Autism spectrum disorders will be better understood thanks to a substantial investment from a US-based philanthropic foundation to the University of Edinburgh.

One of the benefits of spending time at a world-leading university is the opportunity to rub shoulders with others who are similarly attracted to curious thinking, bold ideas and pioneering discovery.

Indeed, it is staggering to appreciate how significant such interactions can be: a conversation in the corridors of a research institute, a coffee shared between seminars. These are the moments in which new partnerships can be forged and lasting progress begun.

It was just such an interaction that led to one of the largest philanthropic donations ever made to the University, given in aid of boosting scientific research into brain development and autism.

In April, the US-based Simons Foundation pledged £20 million to launch the Simons Initiative for the Developing Brain (SIDB). The funding will support pioneering studies into the biology that underpins changes to brain development, and could eventually lead to new ways to help people with autism.

The crucial conversation – or more accurately, the first of a number – came in June 2016, and involved Professor Jim Simons, a renowned mathematician, his wife Marilyn Simons, and Professor Peter Kind, Director of the University’s Patrick Wild Centre for Research into Autism, Fragile X Syndrome and Intellectual Disabilities.

Professor Simons was in Edinburgh to receive an honorary degree for services to his field and philanthropy. In 1984, Professor Simons set up the Simons Foundation with Marilyn. Their aim was to advance the frontiers of mathematics research understand the approach taken by scientists at the Patrick Wild Centre, whose neuroscience research ranges from developing new animal models of neurological disorders to trialling new therapies.

A meeting of minds took place and, before long, the team were building a vision for a new avenue of research.

"In less than one year from that initial conversation, we established this initiative, which has the potential to transform our understanding of the autisms," explains Professor Kind.

"This is an amazing opportunity to bring together a range of scientific and clinical expertise at the University with the aim of understanding how the brain develops on multiple levels, including genetics, molecular biology, neural circuitry, behaviour and cognition.

PROFESSOR PETER KIND

and discovery science. Marilyn Simons now serves as President of the Simons Foundation Autism Research Initiative (SFARI) and the charity has become one of the leading philanthropic funders of autism research in the US. It was this special interest that led the pair to meet Professor Peter Kind.

It was a stimulating discussion. Being well-versed in the current landscape of global autism research, the Simons were keen to understand the approach taken by scientists at the Patrick Wild Centre, whose neuroscience research ranges from developing new animal models of neurological disorders to trialling new therapies.

by combining these approaches, we will learn how brains mature and gain valuable insights into the developmental origins of autism.”

The aim of the SIDB is to understand the science that will
advance new diagnostic tools and better therapies to address the causes and consequences of autism. The conditions, which affect around 75 million people worldwide, affect social interaction and communication and are also defined by the presence of restricted or repetitive behaviours. The initiative will focus particularly on conditions at the severe end of the autism spectrum, where affected individuals also have marked intellectual disability and impaired motor control. In these cases, there is often a clearly identifiable genetic cause, which can be modelled in the laboratory.

The first step on that journey will be to develop new models of these diseases in mice, rats and human stem cells. Research using animals has been hugely significant in autism spectrum disorders and allows scientists to understand the biology of brain conditions in ways that simply would not be possible with other methods.

"Unlike mice, rats are very social animals," explains Professor Kind. "They hunt together and work in teams and therefore have extensive communication and interactions. For that reason, we can learn a great deal about how differences in brain biology and function can influence social behaviours.

"To date, many researchers have examined these conditions in adult animals," he continues. "But we are particularly interested to understand if there is a window or windows of opportunity early on in brain development, where developmental differences can be reversed more effectively than if we intervened later. By comparing young and adult animal models, we hope to identify critical periods in development during which therapies may be at their most effective."

Another Edinburgh scientist who shares this vision for reversing neurological disorders is Professor Sir Adrian Bird, who serves as deputy director of the SIDB.

Professor Bird became internationally celebrated in 2007, when he led groundbreaking efforts to reverse a genetic form of autism, called Rett Syndrome. The rare disorder, which causes physical and intellectual disability in young girls, is caused by a mutation in the gene known as MECP2.

By developing an animal model of the condition, his team found that when the key gene was restored, affected mice fully recovered even in adult animals. For the first time, he showed that the condition was, in mice, completely reversible. A key focus of the SIDB programme will be to investigate if this is the case for other neurodevelopmental disorders.

Hopes are high that similar progress can be made by developing new models of other autism spectrum disorders.

"One of the key goals of this new initiative is to bring academics together from a variety of disciplines, and ask them to consider autism as their collective target," says Professor Bird.

A principal focus will be to use advanced techniques to probe how the brain develops in the presence of DNA changes that are known to cause autism. Experts will investigate how variations in the wiring of the brain alter the way we process information – which ultimately underlies our intellectual and social abilities.

In addition to boosting our fundamental understanding of brain biology, the initiative will also enable scientists to work more closely with clinical teams that care for children and their
families. One key element of the initial programme will be to build cohorts of people with genetic causes of autism, so that new therapies can be trialled as soon as they come on line.

The goals are ambitious, meaningful and ground-breaking, and hope ultimately to change the experience of living with conditions on the autism spectrum.

But the position of the SIDB within the Edinburgh Neuroscience community offers a further advantage.

“The culture here in Edinburgh is exceptionally collaborative,” explains Professor Bird. “None of us can be on top of the full gamut of the conditions we work on, and so we build strength by gathering people with different perspectives around one common goal.”

A crucial collaboration for the SIDB team will be with the newly-established Dementia Research Institute – a UK-wide initiative being led by University College London, which has its discovery science base in Edinburgh.

The £250 million institute, established by the Medical Research Council and dementia charities, aims to accelerate research into neurodegenerative diseases that lead to dementia.

At its heart is a drive to recruit young scientists who will identify strategies to help prevent dementia before symptoms appear and investigate new ways of improving care for people living with the condition.

“The UK DRI at the University of Edinburgh is tasked with illuminating mechanisms of dementias in a similar way to SIDB’s remit with respect to autism research,” says Professor Bird. “The two initiatives have natural links since several research groups are involved in both, and the techniques and approaches to uncover deficits at the synapse, cell, circuit and whole-animal level that underlie different brain disorders are surprisingly similar.

“The DRI and SIDB will work together not only to share expertise, but to co-invest in new equipment and personnel to support both initiatives in the areas of animal behaviour, imaging, functional genomics and bioinformatics.”

The neuroscience community in Edinburgh is surely thriving, and this shared energy, vision and optimism must count among the reasons why. For those living with, caring for or fearing some of the most challenging conditions we face, the future is looking hopeful.

“Professor Kind and his colleagues have been doing outstanding, innovative work, both in the lab and in their clinical studies,” says Marilyn Simons, President of the Simons Foundation. “We are proud to support this further exploration into the biology of the developing brain and feel confident that it will accelerate understanding of autism and hasten the development of meaningful treatments.”

For more information on the work of the Patrick Wild Centre, please visit www.patrickwildcentre.com
The University has always sought to attract the brightest and the best, regardless of a student’s personal circumstances. Now, thanks to the encouraging support from our alumni and friends, the Initiative is building on Edinburgh’s extensive scholarship programmes and opening opportunities to even more students who never thought university was an option for them.

Edinburgh already provides one of the best scholarship programmes for undergraduate students from Scotland, but for the most disadvantaged students we know more can be done. Enhanced undergraduate scholarships means the University is able to place special emphasis on those wanting to study at the University who are from the 20% most deprived communities in Scotland according to the Scottish Index of Multiple Deprivation and those with the lowest family income in the UK.

From this academic year, Scotland-domiciled students who qualify for enhanced undergraduate scholarships will receive 50% more than in previous years thanks to donor support. Meanwhile, scholarships for students from England, Wales and Northern Ireland will also increase, making them the most comprehensive of their type in the UK.

One student who knows all about the opportunities at the heart of a scholarship is History undergraduate Carmen Hesketh, who has been receiving financial support since she began her studies in 2016. We spent time with Carmen and discovered the difference funding has made to her life.

Carmen, let’s begin with a little background. You grew up just outside Glasgow, but what made you choose the University of Edinburgh?

Well Edinburgh has so much for a lover of history. One day, on a visit, I found myself in one of the University’s old anatomy lecture theatres and I knew I wanted to study here. It was how I’d always dreamed university would be like. So I worked hard at school, got the offer, got the grades – and thanks to my scholarship, here I am.

“Donors’ generosity will literally change lives. I’ve met and made friends with people from backgrounds totally different to my own.”

CARMEN HESKETH

The gift of an Edinburgh education

Making a world-class education a reality for the UK’s brightest students is a priority for the University of Edinburgh. This year’s O’Shea Global Scholars Initiative - inspired by Professor Sir Timothy O’Shea’s work to increase access to an Edinburgh education - saw the University launch new enhanced undergraduate scholarships to allow the most disadvantaged students in Scotland and the rest of the UK the chance to study and thrive here.

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Why did you choose your particular degree programme?
It all began with a great History teacher. This particular teacher retrained in her 30s - after she’d had three children. I really admired her drive. She reminded me of my own mum. Learning about the suffragettes made me want to teach too, and to use history as a model for how we might live now.

Have your family or friends studied at university before?
Just my mum, really. It’s not common for people from my town to go on to university. The few that do tend to study closer to home as it’s so expensive to move out.

How are you enjoying your time in Edinburgh?
I’m loving it, and I’m keeping really busy. I’m now the History Society’s Trip Officer - we had a trip to Lisbon recently - and I have a part-time job at a local museum. I also volunteer at the Lothian Health Service Archives. We are transferring records onto a database so that people are better able to research their family history.

What are your favourite memories of your time at the University so far?
Visiting Pena Palace in Sintra, near Lisbon, was fantastic. I also visited Berlin. There I was, with flatmates from Australia and California. A year ago I wouldn’t have even believed that was possible. That’s another thing I love about university life - you meet people from all over the world.

How important has Edinburgh’s scholarship provision been to you and your studies?
That’s easy. It’s made everything possible. It has taken the financial pressure off. I can now concentrate on my studies without working long hours or worrying about debt. With mum on a zero-hours contract, the money simply wasn’t there for me to come here. She is so proud of me.

What have you used the scholarship money for?
Rent, food and bills are the main vital outgoings that my scholarship money pays for. But it also gives me the freedom to pursue meaningful experiences by freeing up the pre-university wages I’d saved up. I was able to attend the History Ball. I wouldn’t have had that chance without the scholarship funding. And it also made Berlin possible.

What’s next? What do you plan to do after graduation?
Originally I’d planned to go into teaching. Presenting to school kids at the museum has given me a flavour of that. But the job at the Archives has turned my head. I could see myself being really happy working in cultural heritage.

Is there anything you’d like to say to donors who support scholarships like yours?
That’s another easy question. I would thank you for making my life ten times better than it was previously. I study at a world-renowned institution and when I leave here I’ll leave with loads of amazing experiences and memories. Then I’ll hopefully move on to a great career doing something I’m passionate about. I’d also say thanks for making it possible to prioritise my learning and not have to worry so much about finances.

What would you say to anyone thinking about supporting scholarships?
I would say that their generosity will literally change lives. I’ve met and made friends with people from backgrounds totally different to my own - worlds apart from what I know. I wouldn’t have had that chance without generous scholarship funding.
An increasing culture of philanthropic support is allowing Edinburgh College of Art to position itself as a world-changing hub of ideas and creativity.

Looking back on his life, the artist Claude Monet reflected on how the support of one individual changed both his fortunes and that of an entire generation of artists.

"We would have died of hunger without him, all we Impressionists," said Monet. "We owe him everything."

The individual in question was Parisian businessman Paul Durand-Ruel. At a time when the likes of Monet, Pissaro and Degas were shunned by the artistic establishment, Durand-Ruel bought their canvases with a singular relish. Such was his influence, the National Gallery in London dedicated a show to his beneficence in 2015.

His story gives flesh to the truism that behind a great work of art, lies a generous donor.

Like any major artistic institution, philanthropy’s thumbprint can be seen across Edinburgh College of Art (ECA).

For nearly a century, ECA students have been able to study abroad thanks to a bequest left by Andrew Grant, former chairman of the Royal Bank of India and Liberal MP.

Professorships in History of Art and Music carry names such as John Watson Gordon and General John Reid, lives long-passed but whose passion for the arts still makes a difference today through endowments.

"There is a sense of a long trajectory of giving here," says Professor Chris Breward, who, until November this year, was ECA’s Principal. "ECA would absolutely be diminished without it."
Professor Breward is in a reflective mood. He has just left the role after six years. His tenure has overlapped with a period of immense change for the College.

In 2011 it officially merged with the University of Edinburgh. It was a mutually beneficial move on many levels, says Professor Breward, not least with regards to philanthropy. ECA was able to build upon the University’s expertise and the College opened up new possibilities for donors.

“Naturally, individual supporters and philanthropists want to encourage the development of a better world,” he says.

“It’s a reason why you might support something like science innovation. But the arts can have the same sort of effect.

“Of course philanthropists can support an individual artist under the traditional notion of patronage, but by supporting artists, musicians, architects, designers, and curators they can really impact the wider world.”

Consider, Professor Breward says, how architecture deals with and finds solutions for environmental concerns. Or how contemporary art can encourage change in civic society. Or how music can be used to engage marginalised groups.

The donors and charitable trusts that make the Music in the Community project possible understand this.

Led by Dee Isaacs, each year music students work with Edinburgh school pupils to stage large scale theatrical productions. The project is international in scope. ECA students are working with a school in the Gambia and with refugee communities in Greece. At every turn, it is music that brings people together.

As well as working on a grand canvas, ECA also offers the chance for donors to support areas of a personal passion and change an individual’s world along the way.
Mark Astaire has always loved art. The Vice Chairman of Investment Banking at Barclays studied at the University, but crossed the path of ECA students. Edinburgh is, after all, a small city.

He recalls being struck by their creativity. He still is. He ranks the Degree Show as “one of the highlights of my year”.

The Astaire Art Prize is the culmination of this appreciation. Now in its fourth year, the £3,000 prize is given to a student whose work is judged by Astaire and ECA tutors.

“I wanted to do something that supported talented artists to remain artists in what can be a very tough career,” he says. “The whole process has just reinforced my appreciation of the quality of teaching within ECA and the students it produces. I’ve learned more about the College because of the prize and my enthusiasm has only deepened. It is a remarkable institution.”

Mark has kept in touch with previous winners, commissioning one to paint portraits of his son and his goddaughter.

The Degree Show is home to several other sponsored awards that help students make the daunting leap into the professional world. The Artists’ Collecting Society, for example, offers two ECA students a one-year residency at a studio of their choice.

Donors are directly supporting students in other ways. Students like Naomi Smith.

And yet, her stride went unchecked. She missed less than five weeks of study during the upheaval of becoming a mother. School was completed and a year was spent at Edinburgh College studying, among other things, her beloved textiles.

ECA’s textiles course should have been a natural next step, but with a young daughter to provide for, the studio fees and material costs looked prohibitive.

And then she heard about the Edinburgh Decorative and Fine Arts Society (EDFAS) scholarship. It has had a “big impact”, she says.

“Without it I would have really struggled,” she says. “It has given me the confidence to pursue all paths when it comes to experimentation and development in my practice because I don’t have to worry about how I will afford extra materials. In textiles it’s really important to have good quality materials to enhance designs. The scholarship has allowed me to do that.”

EDFAS are not alone in this kind of work. Edinburgh jewellers Hamilton & Inches also support scholarships and internships. Centro de Estudios Europa Hispánica sponsor the David Wilkie Scholarship in History of Art, specifically to fund study into Spanish art.

Now entering her final year at ECA, Naomi’s work has already featured in the College’s fashion show and in a collaborative project with IKEA. She has also been able to meet representatives from EDFAS.

“I’m so grateful to them,” she says. “I can’t thank them enough.”

Philanthropy in ECA elevates all involved. “It meets the needs of the school, the students and the donor,” says Professor Breward.
This buoyant dynamic extends into commercial support. The financial industry traditionally focuses on supporting sporting and cultural events. Cazenove Capital Management wanted something beyond balls and ballet.

As an established Edinburgh firm, it wanted to broaden its audience and connect with a younger generation. Which is why, in May this year, they supported Front Row, ECA’s annual fashion show.

“This was different,” says Peter Hiller, Cazenove’s Portfolio Director. “We were aligning ourselves with a prestigious institution – the University of Edinburgh – and supporting a group of students to show their creativity. We are known as a traditional fund management house, so doing something relatively unconventional, would pique people’s interest. It reflected the fresh approach we wanted to take.”

Cazenove’s involvement helped place Front Row on its biggest ever stage. Set in the Victorian grandeur of the National Museum of Scotland, it was a spectacular success.

The students went on to win six prizes at Graduate Fashion Week in London, the world’s leading event for fashion students and graduates, including the main prize, the Christopher Bailey Gold Award.

“If our support helps put things on a bigger stage and help it grow further, then we all benefit.”

PETER HILLIER, PORTFOLIO DIRECTOR AT CAZENOVE

Like any vibrant organism, philanthropy continues to grow at ECA. More opportunities are presenting themselves for donors, staff and students alike. Professor Breward sees a future where the culture of giving isn’t just reflected in the titles of prizes, chairs and bursaries or in logos at events. He hopes it will be embedded in the attitude of anyone who steps foot in Lauriston Place.

“We see philanthropy as a longer relationship,” he says. “We have very eminent alumni coming back, wanting to support generations of students whose experiences will be very different to theirs 20, 30, or 50 years ago.

“We sow the seeds of a philanthropic attitude in what our students are doing themselves within the community and their own practice – Music in the Community is a great example of this. Seeing philanthropic giving as something that is positive and productive is something we would want to embed in the culture of ECA.”

For more information on the work of Edinburgh College of Art, please visit: www.eca.ed.ac.uk
Fighting the invisible enemy

A novel research collaboration is bringing together expertise in eye medicine and solar radiation to improve understanding of how to prevent eye damage and sight loss from exposure to sunlight.

The outcomes could further experts’ understanding of eye health, informing treatments and surgery.

They could be especially significant in developing regions such as in the tropics, where expertise in treating eye disease is limited.

Research and teaching initiatives could help address an overlooked health aspect of climatic change – the impact of increased ultraviolet radiation in sunlight on human sight.

A generous donation from Derek and Maureen Moss, matched by the University, will support the study into how ultraviolet (UV) radiation affects the health of the human eye.

Scientists will examine whether the risk to sight from natural light is intensifying as the world’s climate changes, and how UV-related damage to eye tissue might be prevented or alleviated.

Their three-year project, which began recently, combines expertise in solar radiation and climate change from the School of GeoSciences with clinical capability and stem cell expertise from the College of Medicine and Veterinary Medicine.

Under projected climate change, researchers expect that UV radiation will change in various regions of the globe, depending on complex atmospheric processes and other factors.

In the tropics, however, where UV levels are already higher than elsewhere, further increases are expected.

The research will evaluate current knowledge on the links between UV exposure and eye disease – specifically age-related macular degeneration and cataracts.

It will aim to determine the current incidence of such disease around the world, as well as gaining understanding of how UV exposure causes harm to sight, and how medical intervention might prevent or correct this.

Researchers will then design experiments using cells – building a virtual eye in a dish – to mimic the exposure of the human eye to UV radiation in different environments.

They will adapt instrumentation from GeoSciences to measure the amount of radiation to which eyes are exposed.

The study’s findings will support treatment and disease prevention as the global environment continues to undergo further change.

The research builds on Edinburgh’s established expertise in eye disease and its cross-collaborative approach to tackling research challenges.

Dr Andy McLeod of the School of GeoSciences, who will jointly supervise the research, said: “GeoSciences at Edinburgh has experience of studies into the effects of UV on plants and ecosystems, and has a range of UV measurement and exposure facilities. Combining this expertise with that of the Centre for Regenerative Medicine and the Centre for Clinical Brain Sciences provides an ideal combination to progress this exciting project.”
“Cross disciplinary research of this type is hard to find, working at the interface of environmental photobiology, the pathways of disease, and the fundamentals of cell behaviour – no-one else is approaching this challenge in the way that Edinburgh is.”

PROFESSOR BALJEAN DHILLON

Professor Baljean Dhillon, of the Centre for Clinical Brain Sciences, who will also jointly supervise the study, said:

“Combining expertise from stem cell medicine, the clinic and GeoSciences will help us to get a better understanding of the long-term exposure to UV radiation.

In a related area, talented students from developing countries are to benefit from support to undertake distance learning scholarships in eye surgery.

Applicants from Kenya, Nigeria and Ethiopia have won scholarships for 2017 entry, alongside successful scholars from Mauritius, Pakistan and Brazil.

The six students – all of whom are advanced trainee or independently practising ophthalmologists – will have their tuition fees covered and be given support with getting online, thanks to the David E I Pyott Master of Surgery in Clinical Ophthalmology Scholarship.

Students from developing countries are eligible to apply for support for the part-time, distance learning Master of Surgery in Clinical Ophthalmology.

Each scholar is provided with access to a broadband facility and a laptop computer.

The programme has been designed to enable clinical learning, develop clinical research skills and provide a platform from which ophthalmologists in training are mentored while living and working in their resident countries.

Teaching staff are mindful of the varied backgrounds in which students practise and the potential resources available to them.

Professor Dhillon, Programme Director, said: “Distance learning in surgery is novel and has many clear advantages. Students can continue to practise surgery in their resident countries, and to study without the need to lose income or to relocate.

“The output of our research project into UV radiation is directly relevant to the practice of ophthalmologists who are working in environments where high UV exposure or warming climates are important.

“More support for work like this would enable us to consider conjoined research projects with partners in relevant countries.”

A bequest to the future

A generous bequest from a former staff member is enabling the creation of a £1 million high-tech research suite for studies into eye diseases.

Funds from the Robert O Curle Charitable Trust will support medical and veterinary research, including the new facility at Edinburgh Biocentre.

The donation, worth almost £1.2 million, will also help provide equipment for the University’s Hospital for Small Animals, and laboratory tools to support conservation research at the Royal (Dick) School of Veterinary Studies.

Robert Ormiston Curle served as the University’s Accountant from 1946 until his retirement in 1980.

His sister Hester, a graduate of the University, established a charitable trust in his name after his death in 1991.

For many years, the Trust has supported University projects in human and animal health.

Professor Sir Timothy O’Shea, Principal and Vice-Chancellor of the University, recently awarded the distinction of University Benefactor to the Robert O Curle Charitable Trust, in recognition of its generosity.

The award was made to the charity’s trustees at an event at the Easter Bush campus. A plaque was unveiled during the event, which is to be installed in the atrium of the teaching building at the Vet School.
The Edinburgh University Brussels Society is one such group of alumni that enhances Edinburgh’s reputation abroad while maintaining strong ties with the University. The group consists of former students based in and around Brussels, many of whom work in various EU institutions and public sector groups or simply live in the city.

Gabriel Goldberg is co-president of the society. Having graduated in International and European Politics in 2002, he returned to Brussels but was keen to continue his relationship with the University.

“When I completed my degree and came home to Brussels, I found I missed my time in Edinburgh,” explains Gabriel. “So with a couple of friends we decided to create the Edinburgh University Brussels Society - an informal society that would provide a platform for members to stay in touch with the University and unite likeminded people in Brussels.”

By maintaining a close relationship with the University, the group links visiting Edinburgh academics with professional life in Brussels and acts as a platform for the University in terms of profile and potential fundraising.

Gabriel founded the society in 2002. Since then the group membership has grown to more than 300 alumni. Gabriel notes the vital help the society has received from the University’s Development and Alumni department.

“What’s amazing about the Development and Alumni department at the University is that they’re there to help,” explains Gabriel. “They will meet with groups around the world in order to help individuals initiate projects and provide support. It makes our job much easier and puts us in a closer relationship with the University.”

When moving to a new city, Gabriel urges all graduates to check if there is a local alumni society and make the effort to stay in touch with fellow graduates and the University.

A very European union

More than 15,000 Edinburgh alumni live and work across mainland Europe. Many are part of active groups who come together for networking, social and academic events and maintain strong ties with the University.

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When moving to a new city, Gabriel urges all graduates to check if there is a local alumni society and make the effort to stay in touch with fellow graduates and the University.
Everyone in their professional life is so busy. We tend to forget how passionate we were about the subject we studied at university. Edinburgh offered us incredible experiences. The alumni clubs help us refresh and relive these great memories and keep in touch with the University."

Along with Gabriel, Victor Loewenstein is co-president of the Brussels Society. He graduated from Edinburgh in 1960 and prior to his retirement served as board member and managing partner of one of the largest executive search firms in the world. In his role with the Brussels Society, he gains a lot of satisfaction in being able to bring alumni together.

"An individual’s social network tends to be within your year of graduation," says Victor. “So there is a great satisfaction in mixing the generations at alumni events. It’s good for the younger generations to see that there are individuals who are ten, twenty or thirty years older who still appreciate the role that the University played in their own personal and professional development."

In 2008, the Victor H. Loewenstein Scholarship was created in order to provide financial support to a candidate from outside the UK for an MBA programme. Victor’s help also extends to the careers day that he and Gabriel organise each year at Scotland House in Brussels for more than 20 MSc International and European Politics students from Edinburgh.

"During their week in Brussels, students visit the Council of the European Union, the European Parliament and the European Commission and meet with organisations, NGOs and corporations that use the city as a platform to relate to the European Union," explains Victor.

"We bring half a dozen alumni to talk to the students. People who went through the same experiences provide advice on gaining employment in the Brussels area, which can be very helpful in terms of their future career development."

"The careers day has been running for more than ten years and a number of people have been able to gain employment as a result. The event demonstrates how helpful alumni can be in providing advice and support to graduates who are planning their next steps in the job market."

Gabriel and Victor were also involved in helping organise a Brexit-focused alumni forum in Brussels earlier this year. The event, led by the Principal, Professor Sir Timothy O’Shea, attracted former students from across Europe, and debated what the UK leaving the European Union could mean for the University and the wider higher education sector.

Gabriel comments: "Europe is important for the University. Edinburgh does not want to close its doors to Europe. The alumni club and all our members continue to provide our utmost support to the University to ensure that Edinburgh’s links with Brussels and Europe remain strong."

Victor is keenly aware that Edinburgh is an international University with a global outlook. He hopes that in the wake of Brexit, alumni can be further engaged to preserve the link between Edinburgh and the rest of the world, and that the University continues to be international in character.
An Edinburgh student has teamed up with University supporters to discover how to save a magnificent coral site from destruction.

They are a spectacular part of the eastern Pacific’s most scenic location – a setting as rugged as it is remote – yet theirs is a fragile beauty.

The corals that surround the magnificent Revillagigedo Islands – dubbed Mexico’s Little Galápagos because of their amazing diversity – are at risk from warming seas in a changing climate.

Now a rearguard action has begun, thanks to a partnership between Pew Charitable Trust and marine scientists at Edinburgh, supported by friends of the University. Researchers in the School of GeoSciences had been focusing on the islands long before UNESCO designated them a World Heritage Site last year.

For the past two decades, Edinburgh’s marine scientists have been working with international agencies to help establish marine protected areas worldwide.

It is not hard to see why this remarkable archipelago, 340 miles south-west of Mexico’s Baja peninsula, merits attention. Despite harsh conditions, the islands harbour the most diverse fish and coral community in the Mexican Pacific. Although reef development is limited there, spectacular examples can be found in sheltered bays inaccessible to visitors for about half the year.
Threats to reefs such as these are many and varied – pollution, shipping and fishing among them – and concerns are growing.

Those fears are well founded. Coral enables diverse forms of marine life to thrive in reef structures that offer protection from predators and safe spaces to reproduce.

Each of the four Revillagigedo Islands has a six-mile marine protection zone but the waters beyond these are vulnerable to excessive fishing, and the threat of so-called bleaching. Bleaching occurs when coral reacts to a rise in temperature, and sheds an algae called zooxanthellae that normally lives in its tissue. Without the algae, the coral turns white and, if bleaching is severe, dies.

Helping to thwart this growing threat to the islands is Amber Carter, who has just completed an MSc in Marine Systems and Policies at Edinburgh.

For Amber, who is from Oxfordshire, Edinburgh was a good choice: “My first degree, which was in environmental science and business management, gave me a good scientific base; my Masters at Edinburgh allowed me to develop this while also learning about policy.”

“There’s a need for people who understand science but can also communicate it to government and the wider public so that research actually makes a difference.”

Amber worked intensely to assess whether the archipelago has the potential to become a climate refugium – a haven in which corals can survive rising temperatures better than they would in surrounding parts of the ocean.

Funding from the Pew Charitable Trust made it possible for Amber to gather crucial knowledge and data in Mexico. There, she worked with Pelagios Kakunjá, a non-profit body that tracks migratory marine species in the Mexican Pacific.

“My study was full of surprises. Reefs in that part of the world are very different to those I’d studied before, so that took lots of reading and listening to people.”

AMBER CARTER, MSC MARINE SYSTEMS AND POLICIES

“My study was full of surprises. Reefs in that part of the world are very different to those I’d studied before, so that took lots of reading and listening to people.

“It has been a learning curve, but I have really enjoyed it. I think it’s important to highlight the possibility of these corals surviving climate change.”

Amber presented her findings at the International Marine Protected Areas Congress in Chile and now her dissertation will inform a policy document being drawn up by the Pew Charitable Trust. Her findings, well received by congress delegates, could ultimately help to influence whether the islands’ six-mile protection zone can be extended.

For Amber, it has offered a glimpse of a possible future: “I’d like to keep working with an organisation such as the Pew Charitable Trust. I love getting involved in that area where science and policy meet, and being part of a process that can impact on the protection of our oceans.”
Our community of supporters has once again proven its ingenuity in turning family events and personal challenges into fundraising opportunities for the University’s many causes. Two of them reveal what has motivated them to fundraise their way.

**Name:** Gus Alusi  
**Activity:** Driving along the old Silk Road  
**Raised:** £45,500 for the Patrick Wild Centre for Research into Autism, Fragile X Syndrome and Intellectual Disabilities

“I’ve supported the Patrick Wild Centre since its inception. When my son was diagnosed with fragile X syndrome, my wife Reem and I had more questions and concerns than could be answered – until we met the Centre’s Professor Peter Kind. Since then we have embarked on several fundraising challenges to raise funds to advance the brilliant work of the Centre.

In April of this year we drove along the old Silk Route to Tashkent, in Uzbekistan. This challenge saw us driving between eight to ten hours a day over very tough terrain. We covered approximately 7,000 miles, making our way through France, Germany, Austria, Serbia, Turkey, Georgia, Azerbaijan, Turkmenistan and Uzbekistan.

We called the trip Silk4X and raised over £40,000, which the University has graciously matched. These funds will pay to appoint two PhD students who will research gene therapy for fragile X syndrome.

I’m still recovering from that grueling trip, but the support has made it worthwhile. Reem and I constantly worry about Kenz and his future, and want to be able to help him and other children with similar conditions.”

**Name:** Ali Newell  
**Activity:** Participated in the Sanctuary Walk for Refugees  
**Raised:** £1,353.31 for the Humanitarian Assistance Fund

“I decided to take part in the walk because Edinburgh takes pride in welcoming global citizens in need of safety – whether that be from war, poverty, or as a result of the recent refugee crisis. The intention of this fundraising walk was to increase the number of refugees accessing education through scholarships and online learning for the University’s new Humanitarian Assistance Fund.

We started in Edinburgh, camped overnight near St Bridget’s Kirk in Dalgety Bay for stories and festivities, sailed by boat to Inchcolm and its Abbey in the Firth of Forth, and returned to the Scottish Parliament where there were speeches. The walk was a symbolic reminder of the journeying of refugees on foot, in vehicles and by boat, in order to reach a place of sanctuary.”

“**The walk was a symbolic reminder of the journeying of refugees on foot, in vehicles and by boat, in order to reach a place of sanctuary.”**

ALI NEWELL

You can fundraise your way, too. To find out how, please visit: [www.ed.ac.uk/development-alumni/fundraise-your-way](http://www.ed.ac.uk/development-alumni/fundraise-your-way)
The Hall’s stunning artwork and frescos, the famous organ, and damaged stonework, have all been restored and repaired, while accessibility has been improved.

A pathway to the future

The iconic McEwan Hall reopened this summer after an extensive £33 million project that saw the building restored to its original splendour and the installation of a special pathway that recognises supporters of the redevelopment.

The Hall’s stunning artwork and frescos, the famous organ, and damaged stonework, have all been restored and repaired, while accessibility has been improved. A new entrance pavilion has also been added, while Bristo Square has been newly landscaped.

Since its opening in 1897, thousands of students have graduated here. For many it is an abiding memory of their time at the University.

Thanks to the redevelopment, supported generously by so many alumni and friends, thousands of future students will also be able to savour the unique experience of graduating in the inspiring main hall.
Since its opening in 1897, thousands of students have graduated here. For many it is an abiding memory of their time at the University.

The firstgraduations to take place in McEwan Hall since it reopened were held in July. Among the graduates was the Prime Minister of Canada, Justin Trudeau (left), who received an honorary degree in recognition of his achievements as a public servant with strong commitments to equality and diversity.
The Pathway to Enlightenment

To thank those alumni and friends who supported the redevelopment with donations, the University has created the Pathway to Enlightenment in the Victorian concourse in the basement of the building. The space has been significantly improved to create a new, modern area for students to prepare before graduation and for public events.

The names of donors and those who have inspired donations have been added to permanent tiles around the Pathway as a statement of gratitude but also as a way to inspire the alumni of tomorrow.

The concept for the Pathway to Enlightenment was developed by two students from the Edinburgh College of Art, Lizzie Bevington and Despina Petridou (left), who entered and won the competition to design the Pathway. They took a wide range of images from the University’s collections, from Botany to Shakespeare, reflecting the diversity of subjects studied here at the University.

Their joint concept was based on the movement of ideas and people through the University and the whole being greater than the sum of the many.
Ian was diagnosed in November 2015 with advanced stage cancer after experiencing excruciating headaches. During his final months, the tumour took a huge toll on his quality of life, affecting his memory and causing him to lose his sight, which forced him to give up work. He also experienced major seizures, making countless trips to hospital before finally being admitted to a local hospice.

Jillian lives in East Lothian with their children Abbie, 12, and Max, nine. She explains how shocking his death was: “Ian had such incredible resolve throughout his illness and he didn’t complain once. I always thought there would be something to help him and that he’d be able to be saved because he was so young. I didn’t appreciated that a brain tumour was actually going to kill him.”

Ian Elgin was just 40 years old when he died following a short battle with a form of brain tumour known as glioblastoma. Following his death, his wife, Jillian, made a donation to brain cancer research at the University of Edinburgh to aid the search for a cure. Edinburgh Friends spoke with Jillian and cancer researcher Professor Steve Pollard.

“The battle against brain cancer

“I hope our donation will go some way to helping other families avoid the experiences we went through.”

Jillian Elgin
Despite undergoing surgery, as well as chemotherapy and radiotherapy, Ian lost his battle with glioblastoma in December 2016, with his funeral taking place just days before Christmas.

High-grade glioblastoma is a fast-moving and aggressive type of brain tumour with very limited treatment options. Recovery rates are low, with only 3% of people surviving beyond three years after diagnosis. Brain tumours are now the biggest cancer killers of people under 40.

When Ian was first diagnosed, Jillian’s sister and friend set up a crowdfund to raise money for any support the family might need. After his death, Jillian began to investigate how the family could use the remaining funds to make a valuable impact for others affected by glioblastoma.

"It is very frustrating when you get a terminal diagnosis and there was just nothing else the doctors could do because they had such limited options", remembers Jillian. It was this lack of treatment options that prompted her to contact the University of Edinburgh to find out more about the work being done in glioblastoma research.

Professor Steve Pollard is a group leader and Cancer Research UK Senior Research Fellow at the Medical Research Council’s Centre for Regenerative Medicine at the University of Edinburgh. His research concentrates on neural stem cells – specialist cells that have an ability to self-renew and that are known to drive the uncontrolled growth seen in brain tumours.

"There are many ways to explore cancer, and Edinburgh Brain Cancer includes clinical research scientists working directly alongside patients as well as teams investigating molecular mechanisms in zebrafish."

PROFESSOR STEVE POLLARD

Jillian remembers an afternoon she spent in the Pollard lab at the Centre for Regenerative Medicine. “Our visit to Steve’s lab was just incredible and the work they are doing is absolutely amazing. We saw cells from a glioblastoma tumour and met one of Ian’s oncologists who was working in the research team on a secondment. I thought that it was fantastic how well integrated clinical care is with research. I was really comforted by that visit.”

By studying stem cells from tumours in a dish, the research team can test how the cells respond to drugs, speeding up the search for new therapies. The team also use cutting-edge molecular techniques, such as CRISPR, allowing scientists to genetically engineer tumour cells in the dish and monitor how different genes control disease.

Professor Pollard’s work was covered in Edinburgh Friends last year and even since then there have been strides forward in his research towards understanding, and ultimately treating, glioblastoma. Recently, the research team highlighted two key molecules involved in driving the growth of glioblastoma cells, which could help identify targets for therapies in future.

Professor Pollard says that collaborative spirit is key to the success of his research efforts. Together with other research leaders, he has launched Edinburgh Brain Cancer, a consortium of early career researchers dedicated to advancing the field. The newly-formed research initiative will share knowledge and resources covering all aspects of tumour research.

Donations such as that from the Elgins provide a crucial boost to secure the future of initiatives like Edinburgh Brain Cancer. Whilst scientific research costs can run into the millions of pounds for one laboratory, Professor Pollard says that every penny donated to the centre is vital to helping ‘pump prime’ larger grants.

"Generous gifts such as Jillian’s provide early investment, or seed funding, to do preliminary proof-of-concept work that is crucial to securing grants from major funders. Donations are also incredibly important to linking groups together and generating collaborative efforts such as Edinburgh Brain Cancer”, says Professor Pollard.

He has no doubt that gifts like Jillian’s will continue to help scientists search for treatments for glioblastoma.

Jillian fondly remembers her husband’s infectious positivity throughout his illness and says that it inspired her to find hope after his death. “After my visit to the research centre I had this sense of reassurance that there’s work being done behind the scenes to find a cure,” she says. “I hope that our donation will go some way to helping other families avoid the experiences we went through. It’s nice to be able to turn my situation into a little bit of hope for someone else.”
For most of us a mobile phone is a handy gadget we’ve become accustomed to. But for refugees located hundreds of miles from home, a phone is literally a lifeline. Mobiles offer the only realistic way of contacting family and friends, and of tracing lost relatives.

Across crowded refugee camps, however, a task as ordinary as charging a phone presents a considerable challenge. Desperate to reach loved ones, refugees gather around individual sockets, often for hours at a time. Risking electrocution, some camp residents have also taken to tampering with lamp-post power leads in an attempt to charge directly from exposed cables.

On learning of the refugees’ plight, University of Edinburgh Environmental Sciences undergraduates Alexander Angelopoulos and Sam Kellerhals were determined to make a difference. In 2016 Project Elpis - named after the Greek goddess of hope - united a multi-disciplinary team from across the University. Work then began on designing and creating what would become the project’s innovative solar hubs solution.

Rolling out an ambitious project like Elpis demanded plenty of planning and research. Rising way above their primary charging function, the team’s solar hubs would be providing also a variety of educational and information resources. Hubs’ on-board computers were pre-programmed by the team.

Two students, Alexander Angelopoulos and Sam Kellerhals, are providing refugees with the means to contact family, as well as offering free access to education and information. Backed by the University’s alumni-funded grants for student projects, the pair have gathered a team of undergraduates to create clever solar-powered charging stations that are making life brighter for displaced people stranded in Greece.

Financed entirely by alumni donors, IIGs provide backing for bold new initiatives across teaching, research and student experience.
Without IIG support we wouldn’t have been able to complete the second round of piloting,” says Sam. “That called for six device installations across five Greek locations. Funding enabled that. It gave us the means to gather feedback, validate the concept and meet our goals within the planned timeframe.”

“It was crucial to understand the demographics and dynamics of each camp,” says Sam Kellerhals, “so that the content of books and PDFs could be tailored to residents’ needs. Splitting our resources, we visited camps in the mainland, the island of Lesvos and the northern region of Greece. Coordinating installations from a distance was challenging, but we all worked ‘as one’, and got the very most from Innovative Learning Week.”

Aside from planning and research, realising the project’s aims required significant funding. Kick-starting activity, the team had successfully crowdfunded its initial target of £4,000, a great achievement in itself. But with each hub costing £850 to produce, Sam, Alexandros and their team knew success depended on further financing. An application was made to the University’s Innovation Initiative Grants (IIGs) scheme.

Financed entirely by alumni donors, IIGs provide backing for bold new initiatives across teaching, research and student experience. Applications for IIGs are numerous and standards are high. But by demonstrating the compelling impact of the solar hubs, both for end-users and for those immersed in the implementation journey, Project Elpis was recognised as a worthy grant recipient. An award to the tune of £3,750 meant the students could forge ahead with further installation plans, and with the data-gathering activities crucial to future expansion.

An international success story, Project Elpis is making life that bit easier for those living in refugee camps across Greece. In locations where access to electricity is severely limited, just one solar hub charges up to 120 mobile devices per day. That adds up to full batteries, education and information for 3,600 people each month. Hubs have been embraced by camp residents and welcomed also by local communities, who themselves are often operating within limited resources.

The future? Plans are in place to introduce hubs in strategic locations like ports and detention/accommodation centres. It’s hoped also that the project will be extended to other European nations, as well as to countries in the Middle East.

A student-led innovation, Project Elpis is placing University of Edinburgh expertise at the heart of one of Europe’s most pressing challenges. And as a collaborative initiative, the project is uniting students, volunteers, tech companies and a host of Greek NGOs.

"Underpinning it all,” says Alexander, “was our Innovation Initiative Grant. On the practical side, ordering components, assembling, testing, shipping and installing the units wouldn’t have been possible without our IIG award.”

Project Elpis perfectly demonstrates what’s possible when University-learned expertise combines with donor funding. Thanks to generous alumni donations, Innovation Initiative Grants are able to fund projects like Elpis: projects encapsulating the University’s spirit, championing its international ambitions and making tangible social impacts.

To learn more about how IIGs are supporting initiatives like Project Elpis, visit www.iig.ed.ac.uk
It’s pure chemistry

The School of Chemistry is a crucial part of the University of Edinburgh’s history, with a lengthy list of prominent alumni including recent Nobel Prize winner Professor Sir Fraser Stoddart. The Head of School, Professor Colin Pulham, reflects on the impact of a recent legacy gift from a Chemistry alumnus and the world-changing influence the department has made over the last three centuries.

Since its formation in 1713, Chemistry at the University has made significant contributions to our understanding of the world. Amongst the most celebrated alumni are Joseph Black, whose discoveries include carbon dioxide and latent heat, and whose work was integral to sparking the Industrial Revolution, and Alexander Crum Brown who pioneered drawings of molecular structures that are still relevant today.

Head of School, Professor Colin Pulham, says the Tercentenary year was an opportunity to celebrate the achievements and history of the School. “The 300th year anniversary in 2013 was a time for staff and students to come together and celebrate, through activities such as opera and a Burns’ Supper and ceilidh, which solidified our community spirit.” The School also held a 300 mile walk to the Highland village of Strontian, which lends it name to the element strontium.

With John Wilkie’s donation, the School was also able to purchase a flame photometer, which is used in a wide-range of teaching experiments, including environmental chemistry, allowing students to detect trace metals such as sodium and potassium in groundwater. “The donation was absolutely crucial to upgrading and replacing essential equipment. As these pieces of apparatus are being used to teach our undergraduates students, many of whom will pursue careers as professional chemists, they are going to have a big impact on a lot of people”, says Professor Pulham.

Professor Pulham, who joined the department as a research fellow in 1992, says the School celebrates its past but remains future-focused, celebrating diversity and building a strong cooperative ethos. In 2015, the School was the second-ever recipient of the Athena SWAN Gold Award, a prestigious title that reflects commitment to gender equality in academia. This year, Crum Brown Chair in Chemistry, Professor Polly Arnold, was awarded an OBE in recognition of services to Chemistry and for promoting women in Science, Maths, Engineering and Technology.

“My hope for the School is that our amazing students and staff rise to the challenges that the world faces.”

PROFESSOR COLIN PULHAM

Today, the department is committed to integrating real-world experiences into the teaching curriculum using cutting-edge chemistry apparatus. John Wilkie, a former Chemistry student, recently bequeathed a generous legacy donation to the School, requesting that this be put towards equipment for teaching and research. As well as vital bench-top scales and workstations, John Wilkie’s gift has been used to upgrade the department’s Inductively Coupled Plasma-Optical Emission Spectrometer, a critical piece of kit that uses chemical analysis to detect samples for elements in a wide-range of materials including soil and waters. This apparatus – based on differing flame colours – is used in research but also used to train students in hands-on experiments.

The international ethos of the School is written in its history, with notable chemists including Acharya Prafulla Chandra Ray a key part of our DNA. Edinburgh alumnus Ray is known as the father of Indian chemistry, having founded Bengal Chemicals and Pharmaceuticals in 1893.

Today, undergraduate chemists have a chance to study abroad with up to 40 students doing so in a given year, visiting chemistry laboratories and teaching institutions all over the world in countries including Singapore, the USA,
as well as Hong Kong and countries in Europe. Incoming foreign students experience similar placements at Edinburgh from as far away as Australia. PhD students can take up laboratory placements, with students currently undertaking short term work placements in India and Japan.

Professor Pulham’s hope is that all students have an opportunity to spend some time learning overseas. “We very much value the experiences that Edinburgh students gain from studying abroad. Exploring other cultures and working practices makes students more capable and adaptable. Students often find that widening their learning experience through studying abroad makes them more employable at the end of the degree. Science is an international collaboration and we impress this on students from early on in their careers.”

As well as studying abroad, students at the School of Chemistry have enviable opportunities to spend time working in industry, including a 13-month paid work placement. Professor Pulham says these placements are very competitive, but incredibly valuable. “Working in an industrial placement has real-world applications for the science and gives students a chance to think about their long-term career goals and what path they want to choose after their degree.”

Chemists are at the core of a vast array of industries, including fuels and lubricants, energy, consumer products, heat storage and automotives. Donations such as John Wilkie’s ensure the continuation of quality teaching, improving the opportunities and facilities for Edinburgh students and enabling them to make real impact following graduation. During the School’s 300th anniversary year, the Chemistry Tercentenary Fund was set up, encouraging alumni to support current students in financial struggle, allowing them to continue their studies.

Industrial partnerships are woven throughout all levels of learning and research at the School, with PhD students in industry-sponsored placements and industry collaboration with post-doctoral scientists. Often, these relationships help academics find new research directions and establish strategic partnerships, as well as enabling the School to have a real socioeconomic impact by facilitating applied science. Many alumni are now also involved in commercial spin-outs, making valuable contributions to sectors such as medical imaging.

Professor Pulham says, “My hope for the school is that our amazing students and staff rise to the challenges that the world faces. Chemists are at the centre of efforts to tackle energy issues and to improve healthcare and I hope that we continue to change the world for the better.”

For more information on leaving a legacy to the University, visit: www.ed.ac.uk/alumni/services/givingback/legacy
Voices of experience

Alumni Insights is the University’s new programme that is connecting students with graduates who have progressed to interesting and successful careers.

Events, including careers panels and online advice clinics, are exposing students to valuable guidance, whilst networking opportunities are enabling career-boosting contacts to be made.

Catherine Thomas, a Masters graduate who also earned a PhD in 2009 is an Alumni Insights mentor.

Lucy Hughes, who graduated with an MA, History and Politics in 2017, is one student Catherine mentored.

We spoke with both Catherine and Lucy, and discovered more about their experiences of the scheme.

“Alumni Insights provides a great way to give something back. It was an opportunity to build on my own skills too.” CATHERINE THOMAS
**Q&A: Catherine Thomas**

Tell us about your time at the University of Edinburgh.
I began studying in 1995 and graduated in 1999. I went on to do a Masters in History. Later, I studied for a PhD, which I was awarded in 2009 when I was also working full-time. Challenging, but enjoyable.

What careers advice did you receive as a student?
I received support from the Careers Service, although I don’t remember much help tailored to students of different disciplines. I think the Alumni Insights scheme is brilliant and I wish it had been available when I was studying.

Why did you get involved in Alumni Insights mentoring?
Today’s job climate is very difficult, so when I was approached it sounded like a great way to give something back. It was an opportunity to build on my own skills too.

How did you support Lucy?
We discussed what Lucy wanted from the experience, then agreed goals and actions. Lucy’s interested in the third sector so I shared my experience of how voluntary organisations operate. We also talked about balancing final-year study with career preparation.

**Tell us about other ways you have supported the University.**
I’ve taken part in Careers Service panels, sharing with students my career journey and how I have used my degree. I also make a small regular donation.

**Tell us one thing you love about Edinburgh.**
The people. We aren’t always the most outgoing, but a typical Edinburger is kind, warm and funny. The architecture and the culture are amazing, but the people make it what it is.

**Q&A: Lucy Hughes**

Tell us about your time at the University of Edinburgh.
I loved studying at Edinburgh, and getting involved in lots of amazing societies and volunteering opportunities. I even enjoyed writing my dissertation!

What were the highlights?
I love how the city is intertwined with green spaces too. There are forests to run in, a sea to swim in, giant hills to climb and adventures to be had outdoors. But my absolute highlight is the friends I made. They will be in my life for the long haul.

Why did you join Alumni Insights?
I promised myself I would seek out as many career-boosting opportunities as possible. Alumni Insights offered a chance for structured one-on-one guidance and support. I had a lot of unanswered questions about graduate life. Alumni Insights offers structured one-on-one guidance and support.”

LUCY HUGHES
of unanswered questions about graduate life. I also wanted to connect with someone based within the third sector. That someone turned out to be Catherine.

So, Catherine was a good match for you? She was ideal. We went through skills like planning, self-development and self-awareness. Working on those with Catherine really benefited me, as did practical exercises like time-management and interview practice.

Catherine also helped me identify career goals and her third-sector experience gave me invaluable insights. But the best advice Catherine offered was to set aside ‘me time’ across my final year. Making time for running, seeing friends and thinking about the future were all as important as the late library sessions.

Would you recommend Alumni Insights to current students? Absolutely. Having time with an experienced graduate is an amazing resource to tap into. The structure helps too; meetings are spread out over a year, so there are specific points when a student can touch base for advice and support.

What has been a career highlight so far? I’m hoping my career highlight will emerge this year when I begin the role of Policy Officer for ‘Who Cares? Scotland’. It’s an incredible organisation working with care-experienced young people and care-leavers. Check out the ‘1000 Voices’ project which will feed into the upcoming independent Care Review.
Thank you
A legacy to their future

"Access to education plays a pivotal role in creating opportunities and transforming lives. It provides the building blocks for the future and is essential in reducing inequality and enhancing economic and social mobility. In short, it’s an investment in our future. I’ve chosen to support student bursaries by leaving a legacy to the University in my will. It’s my way of helping future students access the opportunities they deserve." Stewart Dick (Law 1966, Arts 1968)

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