



Falmer

The University of Sussex magazine

N° 55

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Welcome

Much is new this year. The University, with participation from alumni, staff and students, has developed *Sussex 2025*, our new strategy for the changing higher education environment we face. Read more in 'Sussex's seven-year transformation'.

Also in *Falmer*, we're proud to highlight alumni in the arts, activism and pioneering innovation alongside features on global sustainability goals, sensory and quantum technologies, and a new partnership with the Asian University for Women in Bangladesh.

Sussex students are known for wanting to make a difference and in this issue you can read about the pro bono legal clinics launched in 2016 to help members of the local community.

Did you get sporty at Sussex? Read the memories alumni have already revealed and hear how two alumni used their scholarships to develop their sporting talents whilst studying with us, helping them to reach the top of their game.

We'd love to know what you think of *Falmer* and receive your news for the next edition. See our competition page for details on staying in touch, the chance to win the books featured in 'Bookshelf', and news on our exciting new mentoring platform Sussex Connect!



Fally

Falmer Magazine

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The Editor is keen to hear readers' views of the magazine and welcomes articles,
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PLEASE ADDRESS ALL

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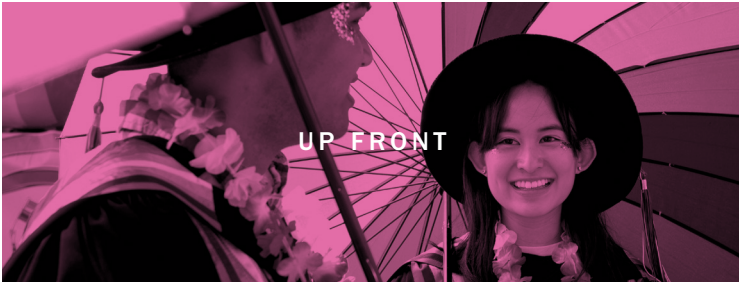
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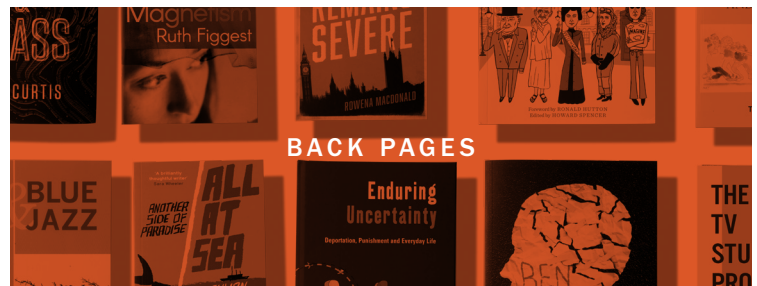
04 / UNIVERSITY NEWS Keeping abreast of Sussex events and announcements taking place on campus and around the world. **08 / SUSSEX 2025** Plans from the Vice-Chancellor on the University's new strategic framework. **10 / SCLE** Help is at hand for the local community with free legal advice at term time clinics.



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News in Brief

University of Sussex launches flexible online degrees

The first **SUSSEX DEGREE TO BE TAUGHT ENTIRELY ONLINE** is now accepting applications. The University and online learning experts Pearson have signed a 10-year partnership to deliver courses that can be studied anywhere in the world, at a time and pace to suit each student.

The first course, an International Marketing MSc, starts in September 2018, with further courses including an Energy Policy MSc and a Sustainable Development MSc to follow.

Jeremy Corbyn meets first-generation students in University of Sussex visit

JEREMY CORBYN, the leader of the Labour Party and **JO PLATT**, Parliamentary Private Secretary to the Shadow Education team, visited the University in September 2017, and learnt about its award-winning work to boost social mobility.

Taking time out of the Labour Party Conference, which was being held in Brighton at the time, Mr Corbyn visited Falmer and met with students who are the first in their family to go to university and receive a means-tested scholarship from Sussex.

Flying off the page – exhibition celebrates birds in literature

Lecturer in English Dr Will Abberley curated an **EXHIBITION AT BRIGHTON'S BOOTH MUSEUM OF NATURAL HISTORY** last summer, pairing bird-inspired British literature with taxidermy specimens.

'Stories on the Wing: British Birds in Literature' highlighted how ornithologists have turned their observations of birds into stories and how birds have sparked our imaginations through myths, folk tales and creative writing.

Sussex ranked first in world for development studies

The University of Sussex has been ranked **FIRST IN THE WORLD FOR DEVELOPMENT STUDIES** in the QS University Rankings 2018.

This is the second year running that the University has achieved the number one spot, and the fourth consecutive year that it has been ranked in the top two universities globally for development.

Grand Sussex and IDS Alumni Meet takes place in Nigeria

Vice-Chancellor Professor Adam Tickell attended the **NIGERIAN ALUMNI REUNION** event in January 2018, where he promised more collaboration in youth development with Nigeria-based Sussex alumni.

The panel forum 'Empowering our Alumni for the 21st Century' delved into the strategies of inspiring Sussex alumni to effectively face the challenges of the 21st century and fully achieve their dreams while contributing to society.

HONORARY DEGREE

Sussex pays tribute to youngest ever honorary graduate

The University kicked off 2018 by awarding an honorary degree to Brighton-based charity CEO Liam Hackett (Business and Management 2009), right, the youngest person ever to receive the accolade from Sussex, as part of its Winter Graduation events.

Presented to him in January on the day of his 27th birthday, the honorary degree recognises Liam's work as founder of the equality and anti-bullying charity Ditch the Label. Beginning as a Myspace page reaching out to other people affected by bullying, it is now a thriving charity, recently expanding into the USA and Mexico.

Other new honorary graduates include Lady Hollick OBE (ENGAM 1964), who was recognised for her role as a life-long campaigner for human rights and diversity; Tophar Campbell (ENGAM 1983), a film, television and theatre director; Duncan Campbell (Operational Research 1974), an investigative journalist and forensic expert; and Professor Becky Parker MBE (MAPS 1984), Director of the Institute for Research in Schools.





SOCIAL IMPACT

SPRU launches Deep Transitions programme

The Science Policy Research Unit (SPRU) in the School of Business, Management and Economics has received a substantial donation from investment management firm Baillie Gifford to fund cutting-edge research into Deep Transitions. The term refers to a coordinated change of many socio-technical systems in the same direction, to achieve large-scale social and economic impact.

Launched at the British Science Festival in March 2017 in Brighton, the Deep Transitions programme – led by Professor Johan Schot, Director of SPRU – will use innovative social science approaches to understand how trends of the past can help us to imagine the future.

MILESTONE

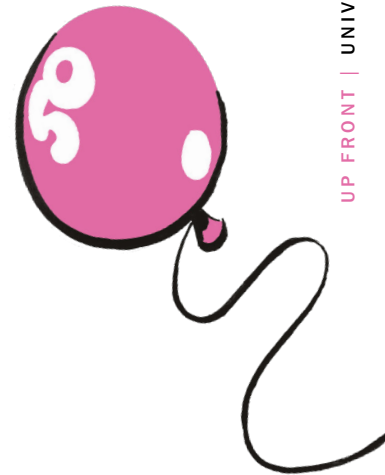
Celebrating 50 years of Art History at Sussex

The Art History department celebrated its 50th anniversary in November 2017 with a symposium that brought together leading art historians from the UK and USA, including former Sussex academic Professor Marcia Pointon and Professor Tim Barringer (CCS 1990).

Held at the Attenborough Centre for the Creative Arts, the symposium examined the course of Art History over the past 50 years.

The celebration came almost a year to the day since A-Level Art History received an eleventh-hour reprieve following a campaign led by the University’s Art History academics and alumni.

Over its first 50 years, the University of Sussex has seen some exceptional Art History students pass through its doors – including Turner Prize-winning artist Jeremy Deller (CULCOM 1992) and historian, author and presenter Dr Lucy Worsley OBE (HUMS 1997).



UP FRONT | UNIVERSITY NEWS

ALUMNI

Sussex alumni gather on campus to celebrate – and say goodbye to – the much-loved East Slope

The flats of East Slope, which house nearly 600 students, are being demolished and replaced with more modern accommodation for more than 2,000 undergraduates. But old East Slopers were thrilled to be given a last chance to walk down – and up – memory lane.

Nearly 200 former residents gathered on campus for a special party and tour of the hillside warren where freshers have lived and loved since the early 1970s.

The party raised nearly £2,000 in ticket sales for the Sussex Fund, which supports students in hardship, sports bursaries, and projects that enhance the student experience.



INNOVATION

Universities and Science Minister opens £11-million Future Technologies Labs

Universities and Science Minister Jo Johnson, right, officially opened a new £11-million facility in December 2017 at the University of Sussex for teaching future workers about robotics and other rapidly-developing technologies.

The state-of-the-art facilities, along with a raft of new degrees in intelligent systems, smart technologies and 5G, will enable Sussex students to become the workforce of the future, with the skills to boost productivity in critical industries for the UK, such as aerospace, pharmaceuticals, manufacturing, food and agriculture.

A recent example of Sussex students' advances in robotics include *Pavarobotti* – an opera performed by two Nao robots which brought together research into music and artificial intelligence.



CAREERS

Sussex Connect, alumni networking and mentoring platform, launches

The University has launched a new mentoring and networking platform for alumni and students.

Designed to help alumni network easily and offer practical careers tips and mentoring to peers, recent graduates and students, Sussex Connect has the look and feel of a social media platform, and a downloadable app that allows alumni to search for and contact friends around the world.

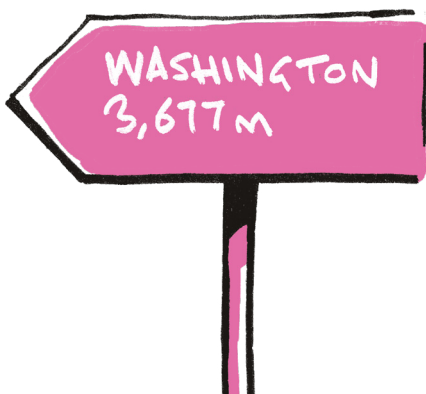
Alumni can sign up through the Sussex Connect login page with LinkedIn, Facebook or an email address. Full access to the site will be granted once registration is approved. The platform will be rolled out to students over the course of the year.

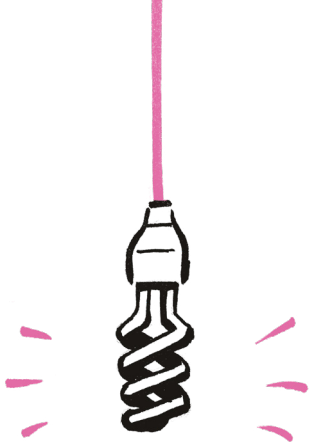
Visit www.sussexconnect.org to sign up as a mentor.

PARTNERSHIPS

Sussex meets with Georgetown to discuss the future of US–UK trade

A delegation from Sussex travelled to Washington DC in March 2018 to meet with colleagues at Georgetown University to discuss the future of trade between the United States and the United Kingdom. The meeting was conceived by Dr Spiros Dimolitsas (EENG 1978), Senior Vice President for Research & Chief Technology Officer at Georgetown University, and Professor Rorden Wilkinson, Deputy Pro-Vice-Chancellor (Education and Innovation) at Sussex, as a way of bringing together international trade experts to think through issues of mutual concern, as well as to engage policymakers on the issue.





ENVIRONMENTAL

University of Sussex makes pledge to 'go greener'

Sussex has begun an ambitious journey to become one of the greenest universities in the UK and is working towards cutting its carbon emissions by 45% by 2020.

The University, which is home to some of the world's leading sustainability academics, is implementing a multimillion pound 'go greener' programme which has so far seen over 3,000 photovoltaics fitted on buildings, the replacement of 27,000 light bulbs with more efficient LED lighting, improved heating and cooling systems and smart metering installed across the campus.

The solar project is the largest of its kind in UK higher education, with the University investing £1.5 million in the new photovoltaic installation. It will provide almost 5% of campus electricity needs and has already been recognised at the South East Energy Efficiency awards, receiving a 'Highly Commended' award in the category of large scale environmental projects.

INTERNATIONAL

Sussex co-hosts international roundtable on achieving the Sustainable Development Goals

An international roundtable discussion organised by Wilton Park in association with the Sussex Sustainability Research Programme (SSRP) and the British Council took place in March 2018.

Focusing on interactions among the United Nations Sustainable Development Goals (SDGs), the event provided recommendations to the UN High-Level Political Forum on Sustainable Development.

In 2015 the United Nations agreed a set of objectives to end poverty, protect the planet and ensure prosperity for all. Described

by Ban Ki-moon as a "blueprint for life on Earth", the 17 goals set out an agenda to improve the lives of everyone on the planet by 2030. However, implementation of these goals is particularly challenging because of complex and innumerable connections among them.

To effectively implement sustainable social, economic and environmental development and move forward with the SDGs, it is vital to understand and act on these interactions.

See page 36 for an in-depth look at SSRP.



Described by Ban Ki-moon as a "blueprint for life on Earth", the 17 goals set out an agenda to improve the lives of everyone on the planet by 2030.



COMMUNITY

First Sussex Community Festival and first Sussex Pride float

Local residents enjoyed a fun-filled day of discovery last year at the University of Sussex's first-ever free Community Festival while in August members of the Sussex LGBTQ+ student society joined staff and alumni to celebrate Brighton Pride, and the University's first-ever parade float.

Thousands of people flocked to campus for the 2017 Community Festival, with a steel band, fairground stalls and bouncy castles creating a carnival atmosphere. At the time of going to press, the second annual Community Festival, on 24 June 2018, will already have taken place. Visitors were invited to enjoy a

packed programme of events, from sports classes, crafts and interactive workshops to live music, debates and guided tours.

As one of the city's annual highlights, the theme for Pride 2017 was Summer of Love, to mark 50 years since the partial decriminalisation of homosexuality in 1967. The parade started from Hove Lawns and ended in Preston Park, where the main festival took place.

Following its success, the University will again join the parade for Pride 2018.



The Vice-Chancellor, **Adam Tickell**, talks about the launch of the University's new strategy, *Sussex 2025*, and channelling Sussex's unique, disruptive energy to create a better university and a better world.

Sussex's seven-year transformation



Q1 How have you found the past 18 months?

The Sussex campus community has this unique, disruptive energy and capacity to think about things in different ways – that's been the way since the University was first established and it's certainly the case today. It's also what first drew me to the institution. It's such a privilege to come to work on this beautiful campus every day. I've been immersing myself in Brighton & Hove and the surrounding areas and enjoying everything the region has to offer. It's a great place to be and I can see why many of our alumni never leave. One of my favourite days so far at Sussex was our first-ever annual Community Festival last year, when we welcomed thousands of local residents onto our campus. The University plays such a vital role locally, contributing more than £340 million to the regional economy every year, and events like this really show Sussex and its people at their finest. This spirit of engagement will be one of our key ambitions in our new strategy.

Q2 What are you aiming to achieve with this new strategy?

The next few years are going to be challenging for all universities in the UK. Our new strategic framework is designed to ensure that the University thrives during a period of turbulence. It sets out our vision for the kind of University we want to be in seven years and beyond. It also clearly states the values that our people hold dear and demonstrates the kind of institution we want to be. There is a line in *Sussex 2025* that says: “If ever there was a time for a great university to stand on the sidelines, this isn’t it”. We were designed to be different when we were founded and we have a distinguished tradition of disruptive and experimental interventions. Yes, the world has great challenges, but we have a proud history of coming up with great answers. Our new strategy is all about building on these foundations to realise a modern, progressive university for a new age. *Sussex 2025* reimagines the pioneering spirit of the original purpose of the University but does so for new times and a new generation.

Q3 How do you intend to transform education?

The University burst onto the scene in the 1960s and was a genuine trailblazer, offering students an experimental, quality education outside the walls of the established elites. We want our students to have this transformative experience and to be able to embrace opportunities and challenges, making meaningful contributions in their own way. They will develop the knowledge and skills to be critical thinkers, entrepreneurs, commentators, global citizens and provocateurs. Our ambition is to be truly world leading in embracing creativity in our teaching, through traditional and novel approaches to learning. We are already experimenting with virtual and augmented reality to teach international relations, for example. With targeted investment and strategic partnerships, all of our students will be equipped with enviable levels of digital literacy. This will ensure they are ready for the fast-changing world of work. But equally importantly, we want our curriculum and educational programmes to take account of our societal responsibilities and to allow our students the ability to contribute in ways that go far beyond their career.

Q4 Will research continue to be central to Sussex?

Absolutely, and a reimagined ‘interdisciplinarity’ will be the driving force. We need to reclaim our reputation as the university of choice for academics and students who want to understand their world beyond disciplinary boundaries. In order to tackle global challenges, we need to attract significant research funding, which is why we are absolutely committed to developing our researchers’ capabilities, networks and opportunities to maximise their success in grant capture. We’ve invested heavily in research initiatives, such as the Sussex Sustainability Research Programme, set up to help society move towards a more sustainable future and to address the United Nation’s goals. Through projects like this, we will join forces with researchers around the world, building a greater international profile and reputation. The opportunities for working in this way are vast, with the UK’s Industrial Strategy designed to tackle society’s greatest challenges by encouraging joint endeavour across industry, academia and civil society. The support of our alumni and friends in our commitment to bringing the benefits of research is critical.

Q5 We’ve heard that Sussex will become a “connected” university – what does this mean?

This is all about recognising that universities like Sussex are – and should be – a force for good in the world. Now, more than ever, we need to interact purposefully with people, organisations and communities at a local, regional, national and international level. This means enabling greater public understanding of science, technology, medicine and the arts, challenging preconceptions, championing democracy and inspiring active citizenship. We will be stepping up our engagement with governments, NGOs, community groups and charities to really change things.

Q6 You’re clearly passionate about the culture at Sussex. How does the new strategy support this?

We are a people-powered organisation and *Sussex 2025* recognises that people play an integral role in our success. We will support our staff, students and alumni to create a flourishing and strong Sussex culture that continues our traditions of disruptive creativity and innovation. In developing the strategy, there have been many conversations within our community about Sussex being known as a ‘kind’ university. This really resonates with me and is exactly where I believe Sussex should be heading. Kindness for me is not about passivity, it is about caring for each other’s wellbeing and for the world around us in responsible, sustainable and active ways.

Q7 What part do you see alumni playing in the next seven years?

Firstly, I want to thank everyone who provided their comments on our emerging strategy in the last year, but also for their continued support for so many things. I’d like to encourage alumni to see their relationship with Sussex as a lifelong partnership. You can help in many ways: sharing expertise and feedback, mentoring students and fellow alumni via Sussex Connect and – of course – through philanthropic support for our students and our research. However you engage with us, you will always be welcome back to our beautiful campus. There are many wonderful events and lectures that our alumni can attend, so I hope to see you soon.

Q8 What's next?

This strategic framework is very much a starting point; a statement of intent. Lots of detailed work is now taking place in our academic schools and professional services departments to devise creative ideas and proposals to ensure the spirit of *Sussex 2025* is embedded right across the University. This is where the really exciting and transformative work begins. ■

Read more about the strategic framework at WWW.SUSSEX.AC.UK/STRATEGY

Sussex law students have been making a huge impact in the local community through helping with free legal advice for hundreds of our most vulnerable citizens.

Help is at hand

Since its launch in 2016, Sussex Clinical Legal Education (SCLE) has become one of the most comprehensive programmes of student-led pro bono work in the UK. Initiated by Dr Amir Paz-Fuchs, and supported by a further nine members of faculty, the SCLE programme provides students with training and practical experience – and members of the local community gain access to free advice via a range of clinics that are run during term time.

Dr Paz-Fuchs says: “University of Sussex law students have been helping some of the most vulnerable people in their local community tackle what are often traumatic life circumstances. Pro bono legal clinics play a vital role in communities, and from the response we’ve had so far, it’s clear there is a need for the type of help and guidance we can offer.”

HOW DOES IT WORK?

Sussex Clinical Legal Education is an umbrella initiative which is currently composed of six projects and clinics. Projects involve students incorporated in and collaborating with charities, in an extra/non-legal capacity. In clinics, students are guided and supervised by solicitors, meet clients and help to prepare legal advice.

Students who work in the Criminal Justice, Employment, Family and Housing Law clinics are as involved as possible in all elements of the process including fact-finding client interviews, liaising with solicitors, and the follow-up research and early stage preparation of an advice letter. They do this under the supervision of the clinic solicitors.

For the Citizens Advice Project students undergo an extensive two-week training programme covering skills such as case recording and client interviewing, as well as introducing them to the core areas in which they’ll provide advice: debt, housing, family problems and consumer issues. The project is run in collaboration with Central and South Sussex Citizens Advice, an independent charity with advice centres in seven locations across Sussex. In the current academic year (2017/18) students have helped a total of 722 clients. This figure includes 190 simple queries and 532 more complex cases. The project is led by Dr Bonnie Holligan, Lecturer in Property Law.

The CLOCK – Time for Justice project is a joint collaboration between the Universities of Sussex and Brighton which currently involves 30 students and six volunteers acting as legal companions and assisting litigants in person, in the family courts. Their work includes helping to complete court forms and assistance during hearings, and students are trained to deal with a broad range of cases including child arrangements, housing, welfare and employment. This year, they have helped 82 clients. CLOCK partners also include charities, law firms and mediators to whom the students can signpost the litigants for specialist advice and further support.

The Housing and Welfare project gives students the opportunity to work with local charity Justlife, to help clients who are homeless or in threatened housing situations. Since October 2017, the project has developed to include a Housing Law Clinic, where students have assisted in providing advice to 20 clients, under supervision of solicitors from Dean Wilson law firm.

“

The experience has enabled me to magnetise theory to practice and provide members of the local community with sharper tools with which to access the justice they deserve.

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RIGHT: Mary Iyi, third year law student, works in the Criminal Justice Clinic

17

17 SUSSEX STUDENTS WORKING WITHIN CITIZENS ADVICE SERVICE PROJECT AND CLOCK - TIME FOR JUSTICE PROJECT

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30

30 SUSSEX STUDENTS WORKING IN LAW CLINICS

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900

MORE THAN 900 CLIENTS HELPED

In the Criminal Justice Law Clinic, students work with supervising solicitor Dr Lucy Welsh to help offer advice in the areas of prisoner rights, criminal offences and appeals against conviction and/or sentence. To date, they have seen nine clients from public enquiries, helped the Prisoners' Advice Service (PAS) with five cases and the campaign group Joint Enterprise: Not Guilty by Association with two cases.

Mary Iyi, a third-year law student who works within the Criminal Justice Law clinic, said: "My experience at the clinic has been invaluable. I was provided with a learning experience that is difficult to replicate in any classroom setting, working on the PAS project and also working with clients from our local community. It created an exciting way for me to give back to the community. With the exceptional help of the tutors, I was able to study law and apply it practically."

This year, in the Employment Law Clinic, students have seen 20 clients at the weekly drop-in sessions during term time. Their advice covers matters such as unfair dismissal, discrimination, illegal deduction of wages and maternity pay and leave.

The Family Law Clinic has seen the largest number of enquiries and the seven students working in the clinic have assisted in advising 48 clients on issues such as divorce, separation, child arrangements, co-habitation, civil partnership and financial matters. It's a service that the students find highly rewarding, as current student Sam Durrant explains: "The experience has enabled me to magnetise theory to practice and provide members of the local community with sharper tools with which to access the justice they deserve. As an aspiring solicitor, the experience will forever remain an integral part of my training and understanding of the law in practice."



ALUMNI HELP

The SCLE has benefited from alumni becoming actively involved in the programme. Rustom Tata (Law 1984), Chairman and Partner at award-winning law firm DMH Stallard, visits the University monthly to support the SCLE's Employment Law Clinic, as does Ruby Dinsmore (Law 2005) from Brighton firm Cognitive Law.

COMING SOON

The next exciting development in the SCLE journey is the formation of a Sussex Migration Law Clinic in October 2018. This new clinic, under the direction of Professor Nuno Ferreira and Dr Judith Townend, will address a severe local need for legal advice for refugees and migrants. Students will be taught and supervised by a newly appointed migration law legal practitioner who will run the clinical legal education module in migration law at the University. This brand new clinic is being made possible through generous support from a charitable trust. ■

LEND YOUR SUPPORT

As the projects and clinics develop, the directors are keen to increase the level of alumni involvement. If you have expertise in any of the clinical legal education areas mentioned above and would like to work with us, or you would like to offer financial support for further development, please contact Rachel Dyson in the Development and Alumni Relations Office at R.DYSON@SUSSEX.AC.UK

CASE NOTES

Writer, women's rights and HIV/AIDS activist and TV producer, [Marina Mahathir](#) (International Relations 1976) talks to Melanie Cooke about her time at Sussex, her passion for an Uncle Sam's burger and following The Piranhas.

The heart of the matter

With a reputation as one of Malaysia's foremost activists, Marina Mahathir's memories of Sussex are not what you might expect. Despite her extraordinary list of accomplishments and her busy workload, her recollections seem to involve everything other than studying.

"I hate to say it, but my most vivid memories are probably of the parties. There was quite a social life on campus. I lived in Park Village and made lots and lots of friends. We had a great time; it was a really good mix of international and home students."

Set against this apparent fondness for a good time, Marina, the daughter of recently re-elected Malaysian Prime Minister Mahathir Mohamad, has worked diligently as a journalist and social activist for over 30 years, and the list of her achievements is impressive.

From 1993 to 2005, she was President of the Malaysian AIDS Council. Marina also campaigned for many regional and international HIV/AIDS bodies. In 2010, she was awarded the UN Person of the Year in recognition for this work.

Since then her focus has shifted to equality for Muslim women. She sits on the board of the progressive Sisters in Islam. She is also a member of the Board of Trustees of the Asian University for Women in Chittagong, Bangladesh. In 2011, she was included in WomenDeliver.org's Women Deliver 100: a list of the hundred most inspiring people who have improved the lives of girls and women around the world.

In 2016, Marina was conferred the Chevalier de la Légion d'Honneur by the French government for bringing "her voice and charisma to many causes".

THE SUSSEX INFLUENCE

For someone who spent much of their time at university having a good time, how did she achieve such a remarkable career?

"I never really planned my future. I decided to study International Relations because I wanted to be a journalist. I was accepted at Sussex, of course, and LSE, but I decided that if I stayed in London I probably wouldn't get much work done. To be perfectly honest, studying didn't make much sense to me until my third year. That might have been because I didn't really apply myself properly in the first two years!

"Overall, the experience of being at a British university was a great influence. You are expected to think for yourself, speak up and defend your opinion. I became far more aware of things, and I learned so much outside of the classroom, too. I remember visiting a friend in her digs, someone there asked me about Malaysia, and I realised that they knew more about the situation in my own country than I did. That's when I realised for the first time that people around the world see things differently. I understood then that I needed to know more so that I could speak up about what I believe in." »

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“
I’ve been in court
so many times,
as we meet a lot
of resistance, but
we’ve survived
for over 30 years.
That says a lot
about the depth
of work that
we do.”

WAKING UP TO THE WORLD

Sussex is considered to be one of the top universities in the UK for its political scene and prides itself on being a place that challenges the status quo. Coming from such a political family herself, did she always harbour a latent political sensibility? Was she attracted to the University for this reason?

“Not at all, I didn’t even know who Nelson Mandela was before I came to Sussex. But I did eventually become far more aware. Sussex really woke me up to the world around me. I do think that if I’d stayed in Malaysia my life would have been completely different.”

Now Marina’s work is prominent and varied. As well as her role as a social activist, she is a writer, TV producer and blogger. She has written a column in the Malaysian *Star* newspaper for almost 30 years and is also the author of four books; she speaks regularly on issues relating to gender, human rights and religion and has produced an award-winning TV programme, 3R (Respect, Relax and Respond). Her website Zafigo.com provides tips on safety, customs, and appropriate dress in conservative countries for women travelling in Asia and the Middle East.

CAMPAIGNING FOR CHANGE

With so many achievements, what is she most proud of in her career?

“I’m very proud of my time working with HIV/AIDS. We raised the profile of AIDS in Malaysia when it wasn’t talked about and was extremely stigmatised. We advocated, fought for and achieved free treatment for AIDS in government hospitals and needle exchanges.

“The work that Sisters of Islam does for women’s rights is really quite pioneering. I’ve been in court many times, as we meet a lot of resistance, but we’ve survived for over 30 years. That says a lot about the depth of work that we carry out. I’m very proud to be involved. I’m certainly not the founder or the pioneer of this movement, but I’m really happy to be part of it.”

Marina’s work with the Asian University for Women (AUW) in Bangladesh is another huge source of pride. The university aims to educate a new generation of leaders, regardless of family income, providing full scholarships for most of its students. Does she feel like a role model for young women?

“I really like working with young people, particularly young women. I’m always happy to spend time with them. I visit the university twice a year, for board meetings and graduation. I’m inspired by these girls every time I go!

“I was really honoured to be asked to join the board, as it seemed like a natural fit for me. I’ve never really considered myself as a role model, but I do think it is important to show an example to young people because they so often feel marginalised: they feel they have no one to relate to. The AUW is doing so much for underprivileged girls who would otherwise miss out on a university education. Every time I visit, I sit in on a lesson and come away wanting to take a class myself. It’s great fun too!”

PUNK, EARRINGS AND SPICY BURGERS

Which brings us back to Marina’s time at Sussex. When she wasn’t partying, how else did she spend her time?

“I used to go to a lot of concerts. I was at Sussex when punk first started, and I followed a lot of the bands. I saw the Brighton band The Piranhas a few times, in London too. I remember seeing some amazing bands in Mandela Hall.

“I loved being in Brighton. It probably wasn’t as trendy then as it is now. I remember visiting the very first Body Shop, and the shopping in Brighton’s Lanes and North Laine was great. It’s where I started my fondness for earrings. Before I came to Sussex I’d never seen people wearing so many different styles – in Malaysia people just wore gold. I can still remember a pair I had made out of plexiglass and silver foil. My first modern earrings!

“But my fondest memory is of Uncle Sam’s spicy burgers: we ate loads of them. When I visited campus last year I made a point of having one and introducing my husband to them!”

Spicy burgers aside, what advice would Marina give to students thinking of studying at Sussex?

“I’ll never forget my time at university. People say that those three years are the best years of your life and I really do feel that. I made so many good friends, people I am still close to today.

“Sussex and the surrounding area has so much to offer a student. I probably would advise anyone to balance out the fun with the work. I clearly played more than I studied, which was apparent to my tutors as well. John MacLean, the Dean of Social Sciences, told me when I graduated that I got the degree I deserved. He said that if there had been a degree in partying I would have received a first!” ■

Marina Mahathir will be awarded an honorary degree of Doctor of the University during the Summer Graduation events in July 2018. Read more about the Asian University for Women and the recently launched partnership with Sussex on [PAGE 39](#).

Smart vision

Simon Segars (Electronic Engineering 1987), CEO of one of the UK's largest tech companies, talks to Melanie Cooke about his phenomenal career, getting into trouble in Brighton and what the future holds for technological development.



Technologies that ARM microchips are used in:

SMART CARS



SMART PHONES/TABLETS



WEARABLE TECHNOLOGY



TELEVISIONS



SMART CITIES



DRONES



SMART HOMES



On the day Simon Segars joined ARM back in 1991, his boss was frantically soldering together a computer for him to work at. From such humble beginnings as a start-up in Cambridge, the company's workforce has grown from 16 to over 5,000 employees working in more than 45 countries. In 2013, Simon became Chief Executive Officer and he oversaw the £24.3bn sale of the company to Japan's SoftBank in 2016.

ARM is now one of the world's most successful microchip design companies, providing the technology for an estimated 99% of the world's mobile devices, which makes it more than likely that your phone contains something that Simon has designed. "I find the visibility of the output of our work very gratifying," says Simon. "To think that you will have used something we've produced brings a real sense of tangibility to what we do."

Being the CEO of one of the UK's largest tech companies is a long way from his first-year project at Sussex. As part of his BEng in Electronic Engineering (1990), a teamwork exercise had him building a cantilevered bridge out of balsa wood and cardboard. But it's this wide-ranging aspect of teaching at Sussex that really appeals to Simon. "It's clear that what you're getting at Sussex is a university that's thinking about how the world works, and how we apply our knowledge. It's not just about learning one subject. There's more of a holistic sense of the world and how what we know fits with other disciplines."

His memory of campus corresponds with this view and is testament to the interdisciplinarity that is so much a staple of a Sussex education. "The campus is relatively large, but being on one site enables you to get an entire view of what's going on. The proximity fosters collaborative working between disciplines and gives you the opportunity to expand beyond your own field." All of which has been extremely useful in his career.

After graduating from Sussex, Simon went to work for STC, a company that had sponsored him through his degree. After a few months with the company he read an article in the trade press about ARM and the rest is history.

"From my time at Sussex I had become interested in microprocessors and I knew that this was an area I'd like to work in," he says. "I really liked the sound of what ARM was doing, so I went back to the careers centre at Sussex to find their address and wrote them a letter. They called me in for an interview and offered me a job. And it's turned out really quite well!"

As the sixteenth employee at ARM, he was working on a number of different challenges, doing whatever was needed to keep the company afloat: "I enjoyed being part of a small team, gaining experience in a lot of different areas, doing a bit of everything." Has this breadth of knowledge contributed to his success? "Oh, most definitely," he answers. "Having a deep specialism coupled with a wealth of experience in other fields in the early days was extremely helpful to my career. Because the workforce was so small at ARM, I was encouraged to move around the company, gaining different experiences along the way."

His broad experience eventually led to his promotion to CEO of a company that has created over 100 billion microchips for mobile phones, tablet computers and other high-tech equipment. It's estimated that over 60% of the world's

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Being aware of your impact on the world is very much part of the Sussex ethos, and it's very much how we operate our company culture.”

population uses a device daily that contains an ARM chip. In 2016, *Computer Weekly* named Simon the most influential person in UK Information Technology.

Did his experience at the University influence him in any other way? "My time at Sussex has certainly helped shape me. What we've tried to do at ARM is create technology that provides opportunities to a global population, making it accessible to people and driving down costs. So, fundamentally, we've tried to democratise access to tech. Being aware of your impact on the world is very much part of the Sussex ethos, and it's very much how we operate our company culture."

It's also how Simon himself operates. Last year saw the introduction of the Social Impact Prize, a competition open to Sussex students and recent graduates who have a sustainable business idea that has social impact at its heart. Simon personally sponsors the prize money for the competition. "We have so many people working towards solving First World problems, but it would be great to examine how advances in technology can be applied to creating positive social impact. I'm happy to do something towards encouraging that kind of thinking," he says.

This philanthropy is great for the University and its students. What motivated him to get involved in this way? "I think it's important to maintain ties with Sussex. I guess I feel that I want to give back some of what I gained from the institution. There's also a sense of wanting to steer the world in a direction that I'd like to see it go in, to be more socially aware about what we create and how it's used. The experience I had at Sussex was pretty good, and so if I can pay that back in some way, then why not."

With that in mind, what does the future hold for a company like ARM? "The future is looking very exciting. Autonomous cars and the Internet of Things are a massive opportunity for us."

Ah, the bewildering 'Internet of Things' – a difficult concept for the average person to get their head around. What does it actually mean?

"It is a confusing term; even my wife has asked me, 'What on earth does that mean?' At its most basic level, it's about connecting everything up to the Internet, using low-cost



LEFT: Simon speaking at the 2017 ARM Partner Meeting

sensors to collect data that can then be processed to infer more of what's going on in our world. Its application ranges from smart gadgets in the home to more impactful aspects, such as how we deal with a growing world population; the growing cost of food production and how we feed everyone; the precious commodity of water and how best to manage that in a smarter way, all using embedded sensors. Essentially we can use smart technology to solve some of the problems associated with an increasing population."

With so much to get excited about in the future, what makes him most proud about his career so far? "I'm very proud of ARM's progress. From a bunch of guys working out of a converted turkey barn in Cambridge to where we are now is an incredible journey. When I joined the company, the then CEO's objective was to create a global standard, and we really have achieved that. On a very personal level, I've been able to work on some very early technology that has shifted billions of units."

What advice would Simon give to anyone thinking of coming to Sussex? "Well, I had a great three years at Sussex. I found myself mixing with people from all walks of life. It was a diverse melting pot and I really enjoyed that aspect. And Brighton is a fun place for sure when you're living away from home for the first time. There were definitely lots of ways to get into trouble!

"But I would advise anyone starting out in their career to not constrain themselves to only one thing – think broadly. My career has been about trying things that I didn't think I was qualified for. My education taught me to never let that get in the way, to take a broad outlook. Sussex has been a great foundation for that philosophy." ■



From a bunch of guys working out of a converted turkey barn in Cambridge to where we are now is an incredible journey.





Ophelia Lovibond (English 2005), star of *W1A*, *Elementary*, *Nowhere Boy* and *Guardians of the Galaxy*, opens up to Dan Pilkington about New Year's Day swims, #TimesUp and being inspired politically and artistically by Sussex and Brighton.

“
He had this huge passion, determination and curiosity which had a huge effect on all of us. I knew how lucky I was to have someone like that teach me.
”

The perfect stage

One of the main reasons I came to Sussex was because of its reputation as a liberal and progressive university. Politically it appealed to me. There were always things on campus to get involved in and I feel that Sussex helped me and my friends become politically aware, which is really important to me now. It's great to see that it's still like that today.

The whole experience of Sussex was hugely positive for me. I loved the vibrant atmosphere that you felt whenever you came onto campus. There's this sense of curiosity that I found incredibly inspiring and never waned in my three years there. You have all these people who just really want to be there. I'm definitely quite nerdy so the satisfaction I got from working hard and knowing a subject inside out was huge. And it's such a beautiful campus. I remember reading on the grass in spring with daffodils all around me. My whole time there has a real golden hue.

I did a module in Irish writing after Joyce which was incredibly memorable for me. It looked like we might not be able to take it at one point as they didn't have enough numbers, but we petitioned and managed to get 18 of us to sign up so the module could be taught. One of our lecturers told us that he had been a gravedigger before getting into academia and you could see that. Not because he was in any way macabre, but you could tell he had lived a life and seen things. He had this huge passion, determination and curiosity which had a huge effect on all of us. I knew how lucky I was to have someone like that teach me. »



LEFT: Ophelia in rehearsals for *Nightfall* at the Bridge Theatre, Spring 2018.

“

I think the indefatigable hunger to gorge myself on literature and ideas has never gone away and I think that was entrenched at Sussex.

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I studied Margaret Thatcher’s effect on the social and political landscape of Britain as part of my course, which was a big moment for me in terms of developing my own views and being able to articulate them. Sussex really taught me how to express my views when I’m discussing a character in an audition or in rehearsals or on set. You’re asked all the time, “What do you think and feel? How do you respond to the character?”, and I feel I’m able to pull out from my brain exactly what I want to say and that’s a skill I’m very grateful to have been given early on.

I think the indefatigable hunger to gorge myself on literature and ideas has never gone away and I think that was entrenched at Sussex. I used to read nine books a week or something crazy. Because you think, “I just want to read everything by this author; I want to know exactly what I’m talking about.” Those habits are ingrained in you early on. I think when it comes to my acting, it’s that endless curiosity that I chase.

That curiosity helped me to discover writers who were completely new to me and outside of the Western canon. I did my dissertation on Ngũgĩ wa Thiong’o and his writing on post-colonialism and female genital mutilation. My argument centred on the idea that he was trying to do a positive thing, but that it

was still problematic, and my commenting on it as a white Western woman was also problematic, so it all got very meta.

In terms of being away from home for the first time, Brighton is the perfect place to live. It’s small enough that you actually bump into people you know, which never happens in London, but big enough to have so much going on. There were always really amazing funk nights to go to, and just being able to see stand-up or slam poetry any night you like. Plus the vintage shops ... I still have lots of great vintage clothes I bought down there. My friend lives in Kemptown now, so I came to stay with her at New Year. There were fireworks on the beach and then we went for a New Year’s Day swim, which was bracing!

I started acting when I was 10. There was a drama group in what used to be Riverside Studios which was right next to the housing estate that I lived on. So I went along and just loved it. The guy who ran the group, Andrew Braidford, set up an agency, so it was all quite organic for me. And then I just continued doing it throughout school and university. My first job out of university was *Nowhere Boy*, which was hugely significant. You write ‘actress’ on a form rather than ‘student’ for the first time, and you just think, “Wow, I’m doing it.”

W1A was such a fantastic experience. The whole cast immediately got on with each other, and the writing by John Morton is so impressive. Every single hesitation and pause is scripted. There's nothing at all improvised, so you have to be really in tune with one another. Hugh Bonneville described it as being like a musical score, which is so true. It's all done now though. We didn't want to flog a dead horse and keep doing it past its sell-by date.

US TV isn't that different from doing TV in the UK, it's just bigger. It's American! *Elementary* was a particularly lovely show to work on. Everyone at CBS was so friendly and accommodating. Because you do 24 episodes, the cast and crew spend so much time together that you really become a family.

Emma Watson helped to create the UK's #TimesUp chapter (a movement to end sexual harassment). She brought together people that she had contacts with, and it's really grown from there because there's a real appetite to do something. We set up the UK Justice and Equality Fund, which will distribute money to existing women's charities. It's still not clear that it's not just about actresses, but it's actually using the collective voice that we have to amplify the cause of those who would otherwise go unheard. It's not about a witchhunt, it's about keeping conversations going about what's right and what's wrong. It's about changing the culture and behaviour for the benefit of everyone, men as well.

In my industry, there are so many things that happen on sets, it's a kind of casual sexism. It's not always out of malice. It's an unconscious thing, a language that is accepted without questioning. ■



“
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”

Alumni participation makes a huge difference to our events and we've been delighted to create some exciting new initiatives, in addition to established events, for increasing alumni interaction within our community. Here is a small selection from the past year.

One voice, one goal

REPRESENTING THE PEOPLE

In honour of International Women's Day, and to mark the centenary of the Representation of the People Act 1918, four Sussex alumnae returned to campus to take part in a panel discussion about their contributions to the fields of art and politics, and to share their thoughts on being role models for future female leaders.

The panel comprised Dr Maria Balshaw (HUMS 1991) – the first female director of the Tate in its 120-year history; Catherine Mayer (EURO 1978) – author and co-founder of the Women's Equality Party; Dr Philippa Gregory (ENGAM 1975) – novelist, broadcaster and philanthropist; and Dr Helen Pankhurst (AFRAS 1983) – author, activist, great-granddaughter of Emmeline Pankhurst, granddaughter of Sylvia Pankhurst, and ambassador for CARE International.

Chairing the event, Attenborough Centre Creative Director Laura McDermott asked the panel how Sussex had influenced their thinking. Catherine Mayer and Maria Balshaw touched on how their political and world views were challenged – for Catherine via political activism, and for Maria via exploration of culture and identity. Helen and Catherine both praised the year abroad scheme that Sussex offered them, as well as the spirit of internationalism. For Philippa it was the "gift" of discovering that history makes us what we are now – something that has gone on to shape her literary achievements.

Commenting on the post-Weinstein #MeToo movement, the panel voiced the unanimous opinion that we are once more experiencing a turning point in gender politics – women are standing up to be counted. Likening the political situation of a century ago to the present day, Helen said: "It was never



LEFT TO RIGHT: Philippa Gregory,
Maria Balshaw, Laura McDermott,
Helen Pankhurst, Catherine Mayer

“
 The last time
 women had equal
 pay was 1350,
 not since then.
 Get going!”

about law, but about women's agency, the changing of social norms ... and men's agency. There's something happening at the moment: it is a time of resistance and people are buying into it.”

Catherine echoed this view, encouraging the audience to follow her lead and keep up the reawakened momentum: “I am participating in this debate because the best way to celebrate the suffrage centenary is to continue the work.” Whilst women's suffrage of 100 years ago was sometimes characterised by the adoption of controversial practices in order to drive change, Maria advocated the importance of positive energy and tone when lobbying for equal rights today, counselling the audience to “have a deadline and be generously angry”.

Philippa reinforced this advice with her own call to arms: “The last time women had equal pay was in 1350, not since then. Get going!”



WOMEN MEAN BUSINESS

The inaugural event for a new mentoring forum, Women Mean Business, was held at Microsoft's London offices in March. Following a competitive application process, nine students were offered a unique opportunity to meet with leading alumnae to openly discuss the challenges and opportunities for women working in corporate environments.

The event was hosted by Suzy Foster (English 1987), Microsoft's Director of Health & Life Sciences, who was joined by fellow mentors Tessa Matchett (English with Media 1990), ITV Studios Head of Press; Tosin Ajayi (Economics 1996), Managing Director at Morgan Stanley; and Jacqui Harper MBE (American Studies 1981), broadcaster, INSEAD Professor and leading business coach.

The ambitions for the Women Mean Business initiative were perfectly articulated at the event by Tessa: “Be inquisitive. Be curious to always know more. Seek out and surround yourself with inspiring people.”

This is just the beginning for our Women Mean Business group. Conversations will continue through the newly-launched Sussex Connect app, which connects all Sussex alumni mentors and mentees, and the group also plans to stay in touch via LinkedIn. Further events are in the pipeline, to broaden out this opportunity to more alumni and students.

PROTESTIVAL

Organised by the University of Sussex Students' Union, and supported by the Sussex Fund, Protestival comprised a series of events, gigs and an academic conference, to mark 50 years

of activism at Sussex. Taking part in the Alumni Panel were Seán Linehan (ENGAM 1965), Phil Bowyer (SOC 1968), Titus Alexander (EURO 1970), Stuart Dalby (SOC 1964) and current student Gillian Arend. With an audience of students and alumni, they discussed campaigns past and present and debated the efficacy of student protests, whilst highlighting some of the changes to students' university experience with increasing numbers, tuition fees and a competitive work environment.

CAREERS IN...

Throughout Make it Happen fortnight and Build Your Future week, over 50 alumni came back to campus to talk about their career paths, share advice and tips on getting into their chosen industry sectors, and network with students. Many of them reassured students that career paths don't have to be set in stone and recommended taking opportunities to volunteer, build experience, or create your own ventures whilst studying, to help you to stand out from the crowd at interviews. Students said they enjoyed hearing down-to-earth advice and the realities of working in an array of sectors, from a wide range of graduates, some of whom had recently left Sussex and others who had long-established careers.

ALUMNI MASTERCLASSES

Life on Mars creator Ashley Pharoah (ENGAM 1978) and music industry gurus Geoff Taylor (Law and French 1987) and Ben Cook (Geography 1992) delivered masterclasses on screenwriting and television production, and the music industry, respectively.

Ashley focused his talk on starting out in the TV/film business, and the challenge of getting that first break. He offered students ideas on the different routes into the industry, as well as some top tips on how to develop and hone those screenwriting skills.

Ben and Geoff talked about how important big data is to the record industry, given the rise of streaming services. Career opportunities have never been more diverse in the industry, with an ever increasing demand for people with data science backgrounds, as well as law and economics. Ben and Geoff shared details of the recently launched internship programmes at both Warner Bros and the British Phonographic Industry with students, who were keen to find out more. ■

If you would like to volunteer your time or expertise to help current students, please email ALUMNI@SUSSEX.AC.UK

Read more about the Representing the People event and listen back to the discussion here: [BIT.LY/SUSSEXRTP](https://bit.ly/sussexrtp)

Sussex alumni all over the world have been busy this year with inspiring community ventures, prize-winning projects and more. Here is a short selection of some of their news.

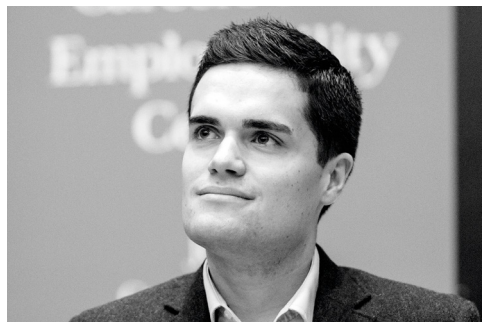
UK Honours

Former Director General in the European Commission **SIR JONATHAN FAULL (EURO 1973)** received a knighthood for services to UK relations with the EU; Institute of Development Director **PROFESSOR MELISSA LEACH** was made a CBE for services to social sciences; **GILIAN MCNEIL (ENGAM 1977)** was appointed a CBE for services to the health and education of vulnerable children and women; **PROFESSOR SHAMIT SAGGAR (SOC 1973)** was appointed a CBE for services to social science and public policy; former Vogue editor **ALEXANDRA SHULMAN (AFRAS 1977)** was made a CBE for services to fashion journalism; **PROFESSOR JUDY SEBBA (CCS 1973)** was appointed an OBE for services to higher education and disadvantaged young people; **THOMAS WELTON (MOLS 1982)** was awarded an OBE for services to diversity and education; **SUE DARE (ARTS 1982)** and **DR ANDREW SPIERS (PGCE 2002)** were both recognised with MBEs for services to education; and Learning Ambassador **AMANDA SCALES (HISTORY 2007)** was awarded a British Empire Medal for services to adult learning and skills.

Awards

JAYANTHI KURU-UTUMPALA (GENDER STUDIES 2008), who was featured in the 2017 edition of *Falmer*, won the 2018 South Asia Regional Social Impact Award at the British Council Alumni Awards for her work on projects addressing violence against women in Sri Lanka; **MAMUNUR RAHMAN (GENDER AND DEVELOPMENT 2006)** was also shortlisted in recognition of his work supporting women and girls' economic empowerment through improved sanitation. The Social Impact Award recognises alumni of UK universities whose work has positively changed their society or community.

Distinguished physicist **DR ANDREW SACHRAJDA (MAPS 1973)** has been elected a Fellow of the Royal Society of Canada; and **STEVE CURR (MAPS 1973)** has been awarded the 2017 Institute of Physics Nuclear Industry Group Career Contribution Prize.



Broadcast journalist **KIT BRADSHAW (POLITICS 2009)** has received several awards, including the Royal Television Society 2017 Postgraduate News Award for his documentary *The Naked Truth: Britain's Cyber Sperm Donors*.

ALASTAIR REID (INTERNATIONAL RELATIONS AND DEVELOPMENT STUDIES 2006) was named the Social Media Journalist of the Year at the PA Editorial Awards 2017 in recognition of his contribution to multimedia coverage of major breaking news.

H.O.M.E., a feature film produced by **INGRID MATIAS (CULCOM 2000)**, won the Best Narrative Feature Award at the 2017 Queens World Film Festival, the Audience Award for Best Narrative Feature at Cine Las Americas 2016 and the New York Showcase Award at the 2016 Harlem Film Festival; **MAYUR RAMGIR (MULTIMEDIA APPLICATIONS AND VIRTUAL ENVIRONMENTS 2004)** received the Best First Time Director Award at the New York Film Festival for his #MeTheForce music video to support a campaign to end violence against women and children.

DR MUSTAFAH DHADA (AFRAS 1974) won the 2017 Martin A. Klein Prize for his book *The Portuguese Massacre of Wiriyamu in Colonial Mozambique 1964–2013*. The American Historical Association awarded the Klein prize in recognition of the year's most distinguished work of scholarship on African history published in English.



Author and journalist **JULIAN SAYARER (INTERNATIONAL RELATIONS 2004)** received the Stanford Dolman Travel Book of the Year award for *Interstate*, which tells the story of a hitchhiked journey from New York to San Francisco.



After young people's disconnection from politics fuelled **BETH MUNRO'S (INTERNATIONAL DEVELOPMENT WITH FRENCH 2013)** passion for bringing politics workshops to more students, she set up the 'Politics in Education' student society, which won £1,000 in a nationwide competition to help support their work with local young people.

Government

The following alumni won or held seats in the 2017 UK General Election: **KEMI BADENOCH (ENGG 1999)**, **MATT RODDA (ENGAM 1986)** and **LLOYD RUSSELL-MOYLE (LAW 2014)** are all new to the House of Commons, and **HILARY BENN (EURO 1971)**, **BEN BRADSHAW (EURO 1978)**, **MICHAEL FABRICANT (SCITECH 1973)**, **PETER KYLE (AFRAS 1996)**, **CAROLINE NOKES (ENGAM 1991)** and **OWEN SMITH (EURO 1988)** were each re-elected. In January 2018, **CAROLINE NOKES** was appointed as Minister of State for Immigration.

Outside the UK: former cabinet minister and successful novelist **CARLOS ALVARADO (DEVELOPMENT STUDIES 2008)** won Costa Rica's 2018 presidential election; **BOGOLO JOY KENEWENDO (INTERNATIONAL ECONOMICS 2012)** was appointed Minister of Investment, Trade and Industry by the Government of Botswana, making her the youngest person ever to hold a ministerial post in the country.

Milestones

Google's **ESTELLE AKOFIO-SOWAH (AFRAS 1994)** was acknowledged as one of Ghana's Top 50 Corporate Women Leaders.

Advice Cloud's **ELLA GRANT (HISTORY 2012)** was named Sussex Graduate of the Year at the Sussex Business Awards 2017.



Singer and songwriter **MELISSA JAMES (CCS 1994)** organised a 'Parliamentary Big Sing' as part of her *Live Again* singing project for mental health awareness.

TESSA CROKER (AMERICAN STUDIES AND HISTORY 2003) joined iconic brand American Girl as an in-house historian, where she ensures historical product accuracy. Law graduate **FLEUR NIEDDU (LAW 2007)** produced documentary film *ISLAND*, which had its world premiere at the 61st BFI London Film Festival.



Tech magician, coder and hacker **THOMAS WEBB (FINANCE AND BUSINESS 2011)**, whose stage name is Tom London, reached the second round of auditions for *America's Got Talent*, impressing judges including Simon Cowell with his digital mind-hacking performance.

ANTHONY LUNN (CHEMISTRY 2014) and **OKE OMONIYI (LAW 2014)**, also known as the musical duo 'Ant & Ox', earned a place in the second round of *The Voice UK*.

Local Community Heroes

Brighton Table Tennis Club, founded by **TIM HOLTAM (HISTORY 2005)**, is helping to transform the lives of refugees, asylum seekers and other people in need, and empowering the community through celebrating diversity.

IAIN CHAMBERS (AFRAS 1993), community organiser and general manager of award-winning cooperative pub The Bevy, in Moulsecoomb, is helping to reduce social isolation, passing on skills for living, and celebrating our local community.

New Ventures



After meeting at Sussex, **NELLIE EDEN (ENGLISH 2009)** and **CLAIRE BURMAN (LAW 2008)** set up independent creative agency Babyface, creating a community of support and a range of initiatives for young women.

JODIE LE MARREC (INTERNATIONAL RELATIONS 2009) opened Embrace Ability, a centre for disabled people in Cambodia, which provides healthcare and education services to local communities.

CHARLYNN KORANTENG (LAW AND INTERNATIONAL RELATIONS 2009) created Up On It, an online platform which seeks to advise, prepare and inform young people about opportunities that can advance them in their chosen careers.

Product designer **KEVIN JABOU (PRODUCT DESIGN 2004)** invented "iceless ice bucket" Kaelo, a product used to contain and keep drinks at the preferable temperature.



With the aim of digitising every chicken shop in the UK, **TAWANDA MARK GAVHURE (HISTORY 2011)** created Chicken2me, an online application helping thousands of users worldwide to rapidly find their nearest shop.

See more Alumni News at WWW.SUSSEX.AC.UK/FALMEREXTRA and send your latest news to ALUMNI@SUSSEX.AC.UK

What is quantum?

Talking about quantum physics now is a bit like talking about the Internet in the early 1990s – it exists, but we’re yet to see it manifest itself in everyday practical ways. Sussex is at the forefront of turning this seemingly radical physics into quantum technology that could change our lives, writes Adrian Imms.

LEFT: Visualisation of laser cooling and trapping of Rubidium atoms

“For many decades quantum physics was only discussed on a conceptual level, as it could lead to changes in how we view the world. Throughout the last century, the public considered it an exotic academic pursuit of little or no practical relevance.”

Professor Peter Krueger, a University of Sussex expert in quantum technology, is explaining the difference between classical physics – physics the public know and trust – and quantum physics.

He says: “If you throw an apple in the air it goes up and down. You know what’s going to happen.

“If you make things gradually smaller, you come to the constituents of matter. You come to atoms and photons. Then the behaviour changes. You get things you wouldn’t expect. If you throw an atom in the air, it might be like throwing an apple in the air, but you could end up with two apples.”

He gives another example concerning waves (such as light waves) and particles (of matter): “If you make a wave of water in a bath tub, and interrupt that wave with your hand, you’d expect to see the wave split in two and come together. But with atoms you’d be very surprised if they did this.”

In quantum physics, atoms can act very differently once trapped in a particular environment and cooled to low temperatures. To give examples, one atom can be in two places at the same time (a situation known as superposition), or two atoms can be intimately connected in ways that have no classical counterpart, even though they are vast distances apart (known as entanglement). Atoms may also, under the right conditions, go through other objects (a process called tunnelling). Scientists also understand that things we traditionally knew as waves can actually behave as particles, while particles can also behave as waves – hence why Professor Krueger’s bath analogy seems strange when regarded from this perspective.

Quantum physics is not new: scientists such as Albert Einstein first explored it in the early 1900s.

Professor Krueger says: “Einstein had to describe experiments in hypothetical ways because they were too difficult to do in reality.”

Back then the public, and to an extent Einstein himself, were still scrutinising classical physics, let alone understanding this new and baffling quantum concept.

It wasn’t until the 1960s that renowned British physicist John Bell reformulated Einstein’s thought-experiments as decisive tests. The actual experiments began in the 1980s.

Professor Krueger says: “The consequences of quantum physics had been unpalatable to Einstein, but these tests proved his clinging to classical physics could no longer be upheld.

“That was when we started turning the concept of this into a reality and now we’re at a point where we are basing technology on quantum physics.” »



You get things you wouldn’t expect. If you throw an atom in the air, it might be like throwing an apple in the air, but you could end up with two apples.





LEFT: Professor Hensinger and his walk-in quantum computer installation at Spitalfields Market

MIDDLE: Machinery in the quantum physics lab at Sussex

RIGHT: Peter Krueger, Research Professor of Experimental Physics

QUANTUM IN THE MAINSTREAM

One area of quantum technology that has received a lot of attention recently is computing.

Winfried Hensinger, Professor of Quantum Technologies at Sussex, appeared in the mainstream media last year after unveiling the first blueprint for a large-scale quantum computer.

Heading up the Sussex Ion Quantum Technology Group, he and his team have developed plans for a machine that can quickly solve certain problems that would take conventional computers millions of years to complete.

Professor Hensinger's design for a quantum computer does this by using individual atoms to process information, rather than traditional binary code (a 1 or a 0, on or off). Harnessing the superposition concept (where particles can be in more than one place or state at the same time) these atoms can behave potentially as 1 and 0 at the same time, and thus process loads of data simultaneously rather than having to make millions of decisions one after another.

Hensinger's team invented an entirely new approach to building a machine where voltages applied to microchips can replace the billions of laser beams that would have been required in previous designs. Professor Hensinger says: "For many years, people said it was impossible to construct an actual quantum computer. With our work we have not only shown that it can be done but now we are delivering a nuts and bolts construction plan to build an actual large-scale machine."

Hensinger and his group are now in the process of constructing a prototype quantum computer scheduled to be completed in less than two years – a feat that will demonstrate that our researchers are well and truly embracing the 1960s Sussex spirit of "making the future".

Hensinger is also in the process of forming a company in order to build large-scale quantum computers.

The fact that last summer Professor Hensinger was able to take a walk-in quantum computer installation to Spitalfields Market, at the heart of London's financial district, illustrates how Sussex is bringing this astounding technology to industry users, such as the banking sector, potential future students and the general public.



QUANTUM APPLICATIONS

This technology, harnessing our control of quantum objects, such as individual atoms, is being developed in areas like communication (working on, for instance, secure encryption that fundamentally cannot be cracked due to the laws of quantum physics).

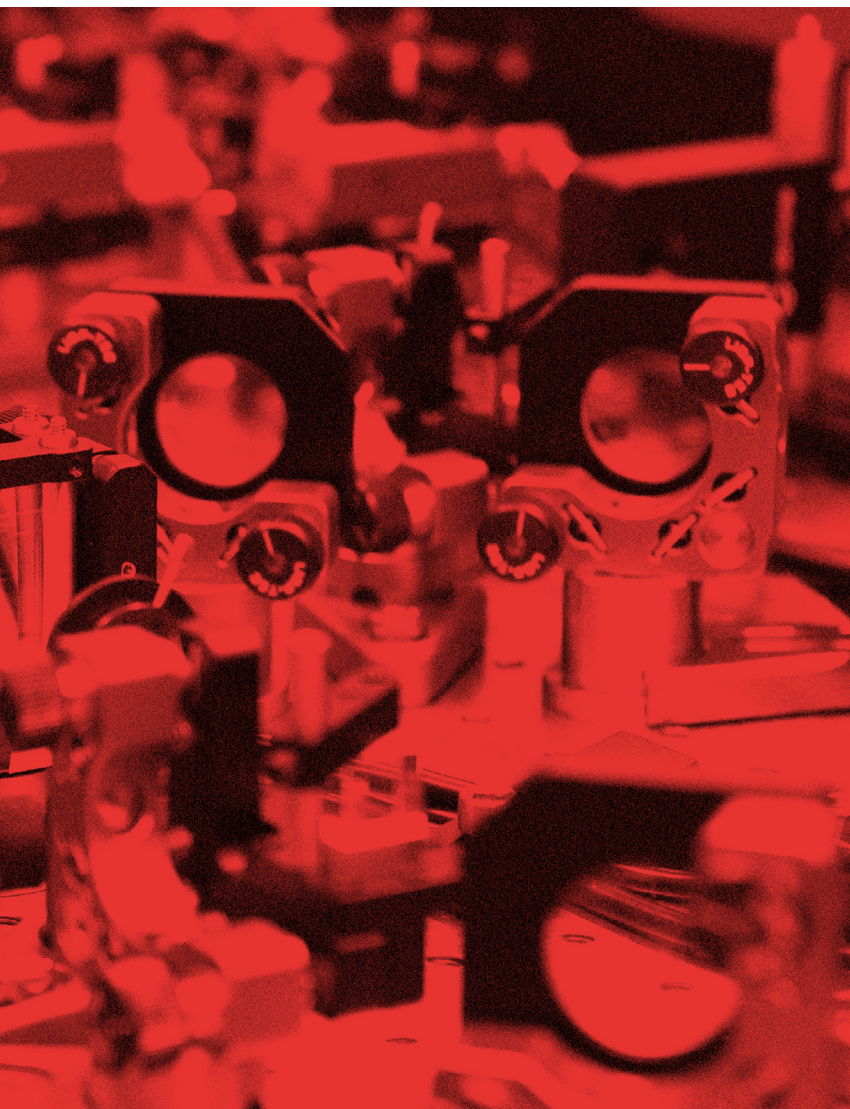
It's also being explored in areas like computing, involving a fellow academic in the School of Mathematical and Physical Sciences, Professor Winfried Hensinger. Just last year Professor Hensinger unveiled the first blueprint for a quantum computer that, unlike conventional machines which use binary code, can use atoms to process information at unforeseen speeds.

Quantum technology is also helping us measure, detect and image things in new and ever-more precise ways. This is the basis of Professor Krueger's work at Sussex.

He explains: "If you bought 100 metre rulers to measure my desk, they would all be slightly different so you'd never know how big the desk was with high precision.

"That's not the case if you measure in atoms. An atomic measurement standard is superior because all the atoms of one type of matter are exactly the same."

As well as precision, measuring with atoms means you get increased sensitivity to forces such as gravity.



Measuring with quantum technology could allow us to detect pipes or tunnels underground, or monitor glacier ice for climate research, based on tiny differences in the strength of the earth's gravity.

Using the kinds of quantum sensors being developed in Professor Krueger's lab, doctors could measure neuron activity in someone's brain or assess the health of blood cells.

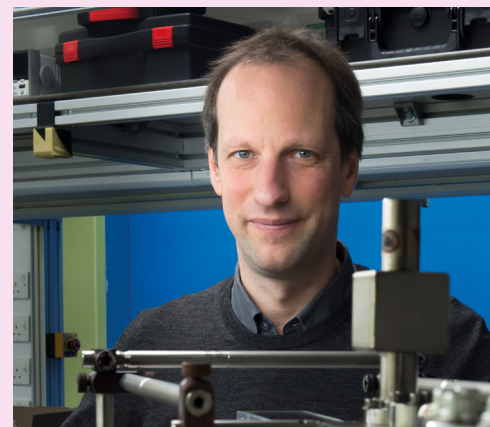
And – skip on if you're not a great flyer – these sensors could be used to find minuscule cracks in aeroplane wings at a normally undetectable level, identifying them before they get worse.

To trap and study atom-sized particles, Sussex researchers use a combination of lasers and magnetic fields inside vacuum chambers, and then rig this gadgetry up to specialised software that can track particle behaviour.

While we're still in the early stages of applying quantum technology to everyday life, the investment in time, money and knowledge is starting to pay off.

Talking about quantum now (like the Internet pioneers of the 1990s) feeds into the essence of what Sussex is all about: broadening horizons, changing things and refusing to accept the status quo. ■

Read more about the work of the Sussex Centre for Quantum Technologies at WWW.SUSSEX.AC.UK/SCQT



MEASURE BY MEASURE

When Peter Krueger, a Research Professor of Experimental Physics, arrived at Sussex in November 2016, his future lab was just a shell.

Now, it's home to the Quantum Systems and Devices Group, comprising undergraduates, postgraduates and postdoctoral researchers.

His group's work, which focuses on sensors and measurement, looks to provide both fundamental knowledge for the next generation, and develop practical sensing devices.

Research goals include developing ways of using microscopes to understand protein movement inside cells and measuring brain activity with sensitive imaging. This will involve collaborating with other researchers in the School of Life Sciences and the Brighton and Sussex Medical School. It is a clear example of how Sussex is interdisciplinary, with different academic disciplines working cohesively together.

The lab is also developing tough but highly sensitive touchscreens using a layer of very cold atoms in a process called magnetic microscopy. More sensitivity is possible because the ultra-cold atoms react to very low scales of magnetic energy.

Furthermore, the group wants to develop the quantum resource (a bunch of ultra-cold atoms in a trap) to build portable devices that could, for example, be used to measure gravity and detect caves or archaeological artefacts underground. Right now, these devices fill a room. Another use could be putting atom traps into clocks; more precise measures of time are being investigated by the stock market, where split-seconds can make or break big companies.

So how do you actually cool and trap atoms? Professor Krueger's lab heats up alkaline metal fibres to release atoms as gas. These particles end up in a vacuum chamber where they're cooled and trapped using lasers and magnetic fields. The extremely low pressure in the chamber means the atmosphere is so diluted there is little chance of rogue particles hitting the atoms in there, which keeps them cold and therefore ultra-sensitive.

The group have just cooled atoms to 100 microkelvin – a mere 10,000th of a degree above absolute zero (minus 273.15°C). It's a milestone for the lab and a step forward for Sussex.

Research News

Research is at the heart of our academic activity at Sussex, and the rich diversity of our work is reflected across a wide range of disciplines. Our interdisciplinary approach brings innovative solutions to real-world problems, and our growing investment in excellence has enhanced the impact of our work on economic progress and the wellbeing of society worldwide. Here, we profile some of the latest achievements from the University.



Research News in Brief

'Heat island' effect could double climate change costs for world's cities

OVERHEATED CITIES FACE CLIMATE CHANGE COSTS at least twice as large as other parts of the world because of the 'urban heat island' effect, new research shows. The analysis of 1,692 cities, published in the journal *Nature Climate Change*, found that the economic costs of climate change for cities this century could be 2.6 times higher when heat island effects are taken into account.

Inter-parental conflict puts children's long-term mental health at risk

A review carried out by the Early Intervention Foundation and Professor Gordon Harold, Andrew and Virginia Rudd Chair in Psychology, has found that the **QUALITY OF THE INTER-PARENTAL RELATIONSHIP IS A PRIMARY INFLUENCE** on children's long-term mental health and future life chances. It shows that the couple relationship is an important area for early intervention services.

New free history website traces lives of transported and imprisoned British convicts

Family historians, teachers, crime writers and academics can follow the lives of 90,000 people convicted at the Old Bailey between 1780 and 1925 and transported to Australia or imprisoned in Britain using a vast, new, free online resource. **THE DIGITAL PANOPTICON WEBSITE** is one of the largest genealogical resources and one of the first to catalogue in chronological order.

The four personas including the Lurker and the Geek that explain teenagers' online behaviour

Researchers have identified four distinct **PERSONAS OF SOCIAL MEDIA USER** that teenagers describe as shaping how they behave online – the Geek, the Internet Celebrity, the Victim or the Lurker. The categorisations are based on interviews conducted with children aged between 10 and 15 years for a book entitled *Researching Everyday Childhoods*.

Action needed to tackle misogyny and gender hate online, say academics

THE LAW ON HATE CRIME NEEDS TO CHANGE, say academics at Sussex, following the results from a 24-month empirical study that showed only 4% of an estimated 110,000 hate crime offences reported to the police result in a conviction. Misogyny and gender hate online is of particular interest, following a two-day conference held on campus in December 2017.



ECOLOGY

Pangolins at ‘huge risk’ as study reveals dramatic increases in hunting across Central Africa

The hunting of pangolins, the world’s most illegally traded mammal, has increased by 150% in Central African forests from the 1970s to 2014, according to a new study led by the University of Sussex.

The first ever study of its kind, published in *Conservation Letters*, shows the true scale of local pangolin exploitation across the continent. The international research team, which includes researchers from academia and conservation organisations, states that up to 2.7 million pangolins are harvested annually from forests in Cameroon, Central African Republic, Equatorial Guinea, Gabon, Democratic Republic of Congo and Republic of Congo.

The team used data from 113 sites in 14 African countries to estimate the total annual harvest of pangolins. Worryingly, the new study reveals the mammal, which is more

sought after than elephant ivory and reproduces slowly, is now making up an increasing proportion of all animals hunted in Central Africa. The researchers also found that snares are still being used to capture pangolins despite the practice being illegal in most central African countries.

Pangolins are hunted and traded for food and traditional medicine throughout their range in Africa, and recent evidence has also shown an increasing trade of African pangolins to some countries in Asia. The researchers show that the price of pangolins has increased in urban African markets since the 1990s, with a 5.8 times increase in price observed for the sought-after giant pangolin, despite it having protected status.

The team are calling on governments across the continent to increase the capacity to enforce international trade bans, embark on education and outreach programmes, and monitor pangolin populations.

150%

THE HUNTING OF PANGOLINS, THE WORLD’S MOST ILLEGALLY TRADED MAMMAL, HAS INCREASED BY 150% IN CENTRAL AFRICAN FORESTS FROM THE 1970S TO 2014

2.7
MILLION

ARE HARVESTED ANNUALLY FROM FORESTS



BIOCHEMISTRY

From the farm to the hospital – how fungicide research could help curb a serious global health threat



Novel compounds originally developed at the University of Sussex for use in farming may hold the key to fighting an emerging fungus that has been labelled a serious global health threat.

Initial tests indicate that research into substances designed to protect cereal crops from fungal pathogens could be used to tackle the threat of *Candida auris* – a multidrug resistant fungus that can spread rapidly in hospitals and cause life-threatening infections.

Scientists from the Mycology Reference Laboratory have seen promising early results from applying alternative oxidase (AOX) resistance inhibitors, developed by Professor Tony Moore. Preliminary tests demonstrate the potential applicability of the compound. The search is now on for a commercial partner to speed up the development of this novel antifungal agent

by redesigning it for use in a clinical setting and creating an oral dosage, or a film that can cover a wound to treat patients.

The fungus, which was first identified in Japan in 2009, has now been reported in at least 15 countries including the UK, where more than 20 NHS Trusts have reported its presence.

Professor Moore’s work is currently being supported by the University of Sussex Enterprise Development Fund, via the Sussex Innovation Centre.

The Centre is seeking commercial partners to aid further development of the AOX compounds for clinical applications – contact commercialisation@sinc.co.uk for further information.

NEUROSCIENCE

Trauma and dementia patients given hope by 'flashbulb memory' breakthrough

University of Sussex scientists have made a breakthrough in detailing the formation of 'flashbulb memories', which could help both dementia patients and those suffering from post-traumatic stress disorder.

Professor George Kemenes and Dr Sergei Korneev have identified a specific molecule, a microRNA – a very short Ribonucleic acid (RNA) that does not code any proteins – which plays a key role in ensuring a long-term memory is formed.

The findings from this Biotechnology and Biological Sciences Research Council-funded project could be an important step towards developing treatments for dementia patients as it sheds new

light on how two 'yin and yang' proteins, CREB1 and CREB2, control the formation or suppression of memories. It is also the first time that specific miRNAs have been shown to play key roles in the forming of long-term memories after a single episode of learning.

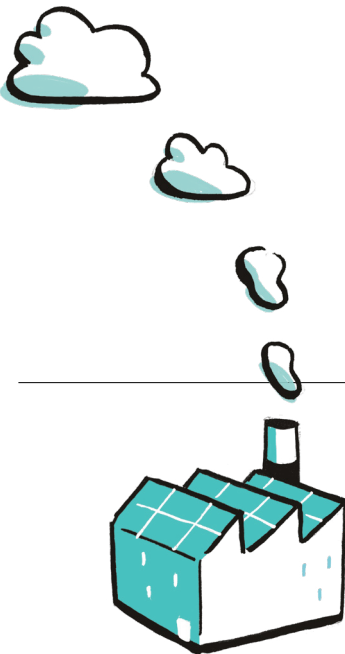
The discovery was made while testing great pond snails' ability to retain the memory of carrying out a simple task through single trial learning.

In tests, levels of the miRNA Lym-miR-137 were found to significantly increase shortly after single trial learning. This then led to a reduction in the protein Lym-CREB2 mRNA, which is known to play a role in the restriction of memories by acting as a molecular constraint of memory formation.

Professor Kemenes believes that by learning how to control the levels of CREB2 and its counterpart CREB1, a drug could be developed that would relieve the block on forming new memories in dementia patients, as well as have the potential to help repress painful memories within those suffering from post-traumatic stress disorder.



“
The discovery was established through testing how great pond snails are able to retain the memory of carrying out a simple task through single trial learning.
”



ANTHROPOLOGY

New study shows 'fast fashion' continues to risk garment workers' health and wellbeing

On 24 November 2012, a fire in the Tazreen Fashions factory in Bangladesh led to the death of 112 workers, while the collapse of the Rana Plaza building just five months later killed 1,134 garment workers and injured hundreds of survivors.

Now, five years on, new research conducted by academics at the University of Sussex shows that, despite some improvements, 'fast fashion' is still putting the health and wellbeing of garment workers at risk.

Geert De Neve, Professor of Anthropology, says: "Improvements have been made since the Tazreen and Rana Plaza disasters. The 2013 Accord on Fire and Building Safety in Bangladesh, a safety pact signed by global unions and more than 200 brands, took important steps towards making global apparel companies accountable for the safety of factories in their supply chains. But these initiatives haven't gone far enough."

On 14 March 2018, a new report from the University, titled 'Workers' Right to Compensation after Garment Factory Disasters: Making Rights a Reality' was launched at the Sedex conference, London.

Authored by Dr Rebecca Prentice, an expert in global garment factory health and safety from the School of Global Studies, the report calls for changes that are needed to secure workers' compensation as a right, rather than as a form of charity.

Dr Prentice commented: "Compensation for occupational injury or death is an important labour right, but it is too often denied to the survivors of garment factory disasters.

This report calls for national employment injury insurance in garment-producing countries, giving practical recommendations for industry, government, and labour rights advocates. When these efforts fail, workers suffer.

"Guaranteed compensation is an important piece of the puzzle that includes fair pay and fair working conditions."



My research suggests that not only is this not necessarily true but that, if anything, zero-growth scenarios are more likely to remain stable. An end to growth did not trigger instability in my tests.



ECONOMICS

No-growth economy could mean fewer crashes and higher wages, study shows

An economy based on zero growth may well be more stable – experiencing fewer crashes – and bring higher wages, suggests a new University of Sussex study.

Running counter to dominant economic thinking, the new research shows that economies can be stable with or without growth and are in fact likely to be less volatile if we stop chasing ever-increasing GDP.

The idea of a no-growth economy is not new – British economist John Maynard Keynes in 1936 predicted an end to growth – but it has gained traction in the past few years.

Dr Adam Barrett, a mathematician at the School of Engineering and Informatics, says: “Our economic system relies on growth but, because we live on a finite planet, most people agree there is a limit to how long this can continue. Slowing down economic activity therefore makes a lot of sense in theory but the charge has always been that this leaves you vulnerable to financial crises.

“My research suggests that not only is this not necessarily true but that, if anything, zero-growth scenarios are more likely to remain stable. An end to growth did not trigger instability in my tests.”

Dr Barrett’s paper is the first to assess the relative likelihood of a crisis emerging from a period of zero growth versus a period of positive growth. The study found that an end to growth would not cause rising inequality: the share of profit going to workers would actually increase. However, the study does concede that this would be accompanied by more frequent substantial drops in levels of employment.



BIOCHEMISTRY

Solving of a decade-long mystery could help in fight against TB

Scientists have solved a decade-old mystery that could eventually lead to the development of new treatments for tuberculosis, one of the world’s deadliest diseases.

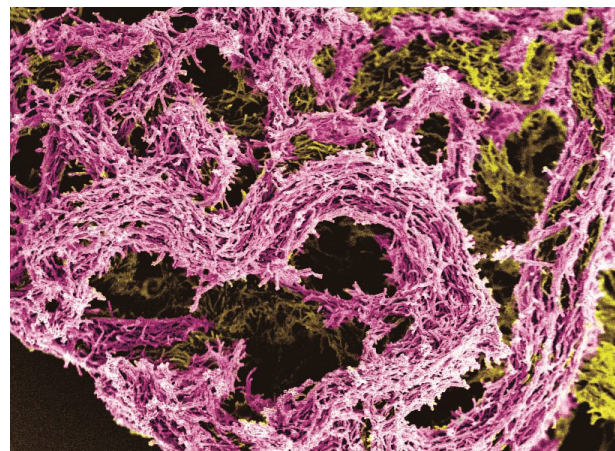
Research carried out by the University of Sussex and the Polish Academy of Sciences has identified two key proteins that allow mycobacterium tuberculosis, the causative agent of tuberculosis (TB), to “lay low” within cells designed to destroy them.

More than 10.6 million people worldwide fell ill and 1.7 million died from TB last year while a quarter of the world has latent TB, which will develop into active TB for one in ten

victims, years – or even decades – later. Tuberculosis is notoriously difficult to treat, with current drug treatments often producing debilitating side effects within patients, including muscle wastage and loss of sight.

Previously, the Doherty group at the University of Sussex’s Genome Damage and Stability Centre discovered that mycobacteria repair DNA breaks using an enzyme complex called Ligase D (LigD). The latest study establishes that a closely related protein apparatus called Ligase C (LigC), whose function was unclear until now, combines with other repair proteins to fix damaged DNA bases in mycobacterial genomes caused by the attack of oxygen-free radicals.

Deleting LigC reduced mycobacteria’s ability to repair and survive oxidative DNA damage. Deleting both LigC and LigD lowered their survival rate even further, suggesting that inhibiting these



repair mechanisms could be exploited to develop novel anti-microbial strategies.

Professor Aidan Doherty hopes this discovery will aid in the design of new antibiotics that could help target mycobacteria, particularly during their latent phase.

Dr Marianna Obrist, Reader in Interaction Design in the School of Engineering and Informatics, tells Rachael Miller how sensory research in the Sussex Computer Human Interaction Lab is revolutionising the way we interact with and experience technology.

Causing a sensation

For Marianna Obrist, a longstanding fascination with the way people communicate with one another and the role our senses play in our experience of the world paved the way for her research at Sussex. And it's goats we have to thank for sparking her interest in the senses.

"Growing up in a mountain village in northern Italy, I was surrounded by goats and other farm animals. It was truly a multisensory experience and one that was especially smelly!" she recalls. However, it was key to her burgeoning interest in the power of our senses to stimulate memories, to modify our emotions, and to add richness and complexity to the way we, as humans, communicate.

Today, as Head of the Sussex Computer Human Interaction (SCHI) Lab, she and her team of postdoctoral researchers and PhD students are focusing on precisely how our senses work in order to improve the way humans interact with computers and other forms of technology.

THE BEST PLACE TO BE

Marianna finds Sussex the ideal place to do this kind of research. "The University is genuinely interdisciplinary," she says. "Our work brings together engineers, computer scientists, psychologists, product designers, neuroscientists, musicians and physicists.

"Not only is there a great history of human-computer interaction research here, with pioneers like Yvonne Rogers and Geraldine Fitzpatrick, but the intellectual openness and freedom to experiment makes it perfect."

INTERACTION DESIGN AND THE SENSES

"When we think of interaction design," explains Marianna, "the senses most commonly involved are hearing and vision. In the SCHI Lab, we're exploring the potential of the other senses and how they can work together to enrich our experiences.

"In sensory terms, we need to see humans as more than eyes and ears," she argues. "We often take the other senses for granted and forget the pleasure that we can get through the smells, tastes and textures of things. We're working to understand these sensory experiences and then formalise them in a way that designers and engineers can use them to build new interactive systems and interfaces."

Not surprisingly, there's already significant interest in the research from entertainment, multimedia and gaming companies. "There's a huge appetite for more immersive and compelling experiences in virtual and augmented reality environments," says Marianna.

As different emotions can be elicited both through single and multisensory stimuli, our interactions with technology also have the potential to be specifically directed so that they are more calming or arousing, for example. It may even be possible to reinforce certain types of behaviours through multisensory design or to aid decision-making in certain situations.

One prototype in development is a form of 'smell nav' in cars, where delivery of different scents to drivers is being explored: these could convey driving-related information, underline hazard warnings and elicit emotions, to enhance the driving experience and improve driver safety.

FROM REHABILITATION TO EDUCATION

Research in the SCHI Lab also has the potential to improve quality of life for people with sensory impairments.

"We're exploring how we can compensate for sensory deficits by sensory substitution. For example, if someone isn't able to smell a scent, we're looking at stimulating another sense to enlarge and enrich their experience. It won't replace the sense of smell, but it may offer another channel through which specific information about their environment can be communicated. I'm excited about the possibilities opening up for developing therapeutic and rehabilitation technology."

One of the PhD students in the Lab, Daniel Hajas, is investigating how complementary senses can be used to convey difficult science concepts, not only helping those who are visually impaired but also the sighted.

It's challenging to visualise a hydrogen atom, for example, so Daniel is looking at different ways of conveying information, exploring how to make it more understandable through touch.

He's also working with experts in quantum and plasma physics, as well as cell science at Sussex to develop educational tools that will augment those currently used for their outreach activities.

In the long term, the Lab's research could revolutionise the way education is delivered.

"Making education a multisensory experience could really improve memorability and learnability," says Marianna.

For more about Daniel's work to make science accessible to everyone, see the box on far right.

A TASTE SENSATION

Another strand of research focuses on how acoustic levitation (using sound waves to make morsels of food levitate) affects our perception of taste and how this understanding can be used to build novel food delivery systems and design new taste experiences.

The project TastyFloats has attracted huge interest both from the media and from chefs interested in molecular gastronomy and the design of new dining experiences.

The research has applications beyond the pursuit of fine dining. "Right now, we can levitate tiny food morsels and it's an excellent way of encouraging children to try new foods," explains Marianna. "We're exploring using the technology in schools to teach children about different flavours in an interesting and novel way, while they also learn about the physics involved. We're going to do an outreach event in a local school this summer."

CITIZEN SCIENCE AND ART

The research has caught the public's imagination in ways that Marianna could never have predicted, even changing the way we experience art. Flying Object, a creative company in London, contacted her to work with them on Tate Sensorium, a multisensory installation curated by Tate Britain, designing the tactile experience using a novel mid-air technology she and her team are exploring in the Lab.

Such was the public appetite to visit the installation that the Tate extended its run. It also attracted an immense amount of press attention both in the UK and worldwide. A magical moment for Marianna was speaking on a panel at South by Southwest – one of the largest and most influential film, interactive media, and music festivals in the world.

THE SKY'S THE LIMIT

"Ultimately," says Marianna, "my dream is to use my research to help improve the experience of space travel for astronauts, in particular when we finally have manned flights to Mars or beyond."

Astronauts on long space flights find their sensory perception changing and they face big problems with not getting enough sleep and not wanting to eat.

"It's not just about giving astronauts better tasting food, it's about supporting their emotional wellbeing through sensory stimulation," she concludes. "I believe that technology has a role to play in the transition from leaving Earth to the colonisation stage on Mars or any other planet we are still to discover." ■



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DANIEL HAJAS – SCIENCE EDUCATION FOR ALL

Before starting his PhD in the SCHI Lab, Daniel had already designed the Iris app. The app allows visually impaired people to upload complicated graphs and diagrams to an online system and get them described by sighted experts around the world – helping make science more accessible.

Daniel, who lost his sight at the age of 16, developed the groundbreaking app while doing his Masters in Theoretical Physics, with the help of a team of fellow students at the Universities of Sussex and Portsmouth.

He's now seeking charity status for the organisation he founded, Grapheel, which aims to make science subjects more accessible to everyone.

This enterprising student has so far received funding towards Grapheel from Michael Chowen CBE DL, a local businessman and loyal friend of the University, which was matched by Santander bank.

He has also received support from the Sussex Innovation Centre, based on campus.

If you're interested in participating in Iris or would like to know more about the other initiatives that Daniel and his team are working on, visit WWW.GRAPHEEL.COM



RIGHT: Scent-delivery device developed in the SCHI Lab that allows precise manipulation of the scent-delivery parameters



Sustainability for all

The [Sussex Sustainability Research Programme](#) has been created to help society move towards a more sustainable future. Programme Director Joseph Alcamo explains how maximising synergies and minimising trade-offs is key to our success.



In January 2016, the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development officially came into force. The SDGs provide both an extraordinary opportunity and an extraordinary challenge to society. If these goals are met, the pay-offs are likely to be a higher level of wellbeing throughout the world, and a more sustainable planet. Achieving the SDGs would be equivalent to fulfilling some of humanity's greatest aims – ending hunger, providing education for all, and attaining a high level of environmental quality.

The 193 countries that agreed the SDGs are now focusing on implementation, using networks such as the United Nations High-level Political Forum on Sustainable Development to share and review strategies. Science and research have a critical part to play by providing stakeholders, policymakers and communities with the evaluations and knowledge to help shape these strategies efficiently.

This is an important issue for all countries and understanding the interactions between different SDGs is crucial to achieving change on the ground. Interactions can be either positive, neutral, or negative and learning how to maximise positive synergies whilst reducing negative trade-offs will be vital to our success. The factors involved in this process may be political and financial, but also scientific. It is with this in mind that the University has established the Sussex Sustainability Research Programme (SSRP), with the aim of being the leading research centre for providing interdisciplinary research results of relevance to achieving the SDGs.

“Actions that lead to trade-offs are an inefficient way of implementing the SDGs because gains in one goal come at the expense of others,” explains Joseph Alcamo, the SSRP Director. “Our aim at Sussex is to enable countries to take advantage of synergies among SDGs. It is urgent to act now because current decisions are ‘locking in’ the negative rather than positive connections among the goals. Consider the case of a country trying to reach the goal for energy by expanding its capacity of coal-fired electricity. Investments in coal-fired plants lock in this type of electricity for decades and in so doing make it difficult to reach the climate goal. As an alternative, these financial resources could be invested in renewable energy which would help attain the energy, climate and other goals at the same time.”

The SSRP approach advocates that all SDG investments should consider that interactions among the goals differ at the local, national and global scales, as well as over time and by context. For example, it may seem reasonable to achieve the food goal at the local scale by overexploiting a coastal fishery. However, this strategy works against the global target for conserving ocean ecosystems, and over time it becomes increasingly unsustainable both locally and globally. These differences between scales and time periods provide a strong case for a multi-level, cross-sectoral and long-term approach to SDG investments and policies.

Under the SSRP umbrella, there are currently 20 projects in 12 low and middle income countries, and the UK, with a focus on key connections between SDGs. We recognise that to achieve the goals by 2030, people globally will need to respond rapidly to challenges as they develop in different parts of the world. By working closely with local actors and communities, our vision is that these projects will offer the insights required to affect policy and practice.

The 12 different overseas locations provide the opportunity to establish a network of Sussex Sustainability Observatories, hosted in a variety of countries, to best allow the study of these complex global challenges. At the same time, we aim to offer international executive-level training in sustainability issues to give our partners the tools that they need to understand, engage and deliver on the research findings in their own regions and organisations.

Working alongside the renowned Institute of Development Studies, the SSRP involves over 100 researchers across six schools and 12 departments, including Development Studies which is currently ranked number one in the world. Professor Alcamo is optimistic that the SSRP can make a real impact. “I believe sustainability science is at the frontier of research, and where the vital interests of society and science coincide,” he says. “I know of few institutions in the world investing as much in this research as the University of Sussex.” »



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Sussex Sustainability Research Programme projects

GLOBAL (100 COUNTRIES)

Debt and environmental sustainability in forest communities

KENYA, TANZANIA, ETHIOPIA AND RWANDA

Climate resistant agriculture systems in Sub-Saharan Africa

UK

Delivering food security through rewilding and community agriculture

KENYA

The prediction of food security crises and responses

UK, INDIA

People, pollinators and pesticides in peri-urban farming

INDIA

The resilience and sustainability of small farms

KENYA, TANZANIA, SOUTH AFRICA, BANGLADESH AND INDIA

Urbanisation and changing food systems

CHINA, INDIA

Understanding trade-offs between SDGs in urbanising contexts

PAPUA NEW GUINEA

Surfaces: an interdisciplinary approach to enhancing health in a vulnerable rainforest setting

UK, ZIMBABWE

The intersection between migration, food security, environmental challenges and livelihood strategies

EGYPT

Building global surveillance with local data: towards a sustainable global response to antimicrobial resistance

UK

Managing cross-disciplinary trade-offs for sustainable development

INDIA

Blockchains for sustainability: supply development in forest communities

UK

Achieving sustainable trade post-Brexit: the UK and beyond

BRAZIL, ECUADOR, INDONESIA AND SRI LANKA

Sustainable supply chain development in forest communities

SOUTH AFRICA

Drought, poverty and HIV drug resistance: threat to resilience in vulnerable rural settings

INDIA

Tools for safe and sustainable artisanal fishing

ECUADOR

SDGs, global commodity chains and environmental justice

SIERRA LEONE AND ZAMBIA

The 'right to nutrition' in its social, legal and political context

DELHI AND BEIJING

Urban air pollution and inequalities in fast industrialising countries



ABOUT JOSEPH ALCAMO

Professor Alcamo was the first Chief Scientist of the United Nations Environment Programme (UNEP) and was the first person to hold a Chief Scientist post within the UN system. He helped found the Climate and Clean Air Coalition, an alliance of governments and non-state partners dedicated to fast action on pollutants that cause both air pollution and climate change. After leaving UNEP he served as Special Science Advisor to Christiana Figueres, the Executive Secretary of the UN Framework Convention on Climate Change, in the key period leading up to the Paris Agreement (2014–16).

Sussex and the **Asian University for Women** have recently launched a partnership to help transform the lives of talented women from across Asia.

A fitting partnership

In the Chittagong Hill Tracts area of south eastern Bangladesh, near the borders of India and Myanmar, the Asian University for Women (AUW) sits amongst rolling hills and deep valleys, with spectacular views towards the Bay of Bengal. In 2004, the Government of Bangladesh offered this site as the location for a new University, following recommendations by the World Bank regarding the need to address education for women in South and East Asia.

When it formally opened in 2008, AUW had 130 students in its first year. Today, it welcomes more than 600 women from 15 countries in Asia – including many from Afghanistan, Syria and Yemen. Students are admitted solely on merit, regardless of their family's income level; some are refugees, while others have worked in the garment industry and many are from communities that are under-represented in higher education.

A partnership with Sussex is a natural fit. Since the 1960s, our strengths have reflected a passionate commitment to engage with societal issues. We want to develop a network of like-minded, high quality institutions around the world, fostering an exchange of ideas and people that exemplifies Sussex's interdisciplinary approach to teaching and research.

In 2017, Professor Nirmala Rao, Vice-Chancellor of AUW, visited Falmer to formalise and deepen the relationship between the two institutions. Our shared vision is to help talented young women to become catalysts for change in their societies by enabling them to pursue postgraduate education at Sussex. With that goal in mind, Sussex and two generous supporters of the University provided scholarships for three women to study a Masters here in 2017/18. During her visit, Professor Rao said: "I must say a big thank you to the University of Sussex, it's the first university in the country to have instituted this kind of scholarship." »

RIGHT: An AUW student tending to vegetables in the campus garden.



**SUPPORTING
TALENTED WOMEN**

The recipients of these scholarships are three exceptionally talented A UW graduates – Alinery Lalngilneii Lianhlawng, Nikita Naik and Tanjila Driшти. Each has their own story to tell about their education, and Alinery’s journey shows the potential that can flourish with support. Having grown up in Sangau, Mizoram in north eastern India, she was the first woman from her community to study abroad, the only person from her family to be admitted to university, and with the help of others, she’s built the first ever school library in her hometown to enable a new generation of children to access education. But her path to A UW and Sussex hasn’t been straightforward.

“My struggles began while I was still in my mother’s womb,” she says. “With my dad being away for work, my mum had to give birth to me in our home all alone, leaving her frail and bedridden for a month.

“My family is small yet very happy, modern and open. As the youngest child of five, pursuing my studies was a challenge when my parents struggled to just buy our uniforms for school. I remember my dad working in the field from dawn to dusk. As a housewife my mother had to juggle both working in the field and the household chores while also actively contributing both to the church and to different NGOs in the village. Consequently, all of my older siblings dropped out of school and my eldest sister got married before she had even finished high school.

Fortunately, I managed to remain in high school through a merit scholarship and part-time job that helped me pay for my fees and school supplies. However, my level of English was so poor that I was unable even to introduce myself. My father decided to sell a plot of land in order to send me to an English boarding school in the city, which became a turning point in my life. I will forever be grateful to my departed father for giving all he had for his daughter’s education.”

IN THE SERVICE OF OTHERS

Sussex has been engaged in research and education partnerships with Asian institutions for many years, but had recognised a gap in what these arrangements offered in terms of reaching marginalised groups. The purpose of the partnership with A UW is to encourage cooperation on academic programmes, and to promote university staff exchanges and mutual visits to both institutions as well as student exchanges. At the heart of these objectives is a scholarship programme to enable A UW students to progress to Sussex Masters courses.

We see it as critically important that young Asian women from under-represented backgrounds can access the world-class education Sussex offers. The benefits can be exponential; for the women themselves the opportunity of postgraduate education opens many doors, both in terms of economic freedom and social mobility. These positive outcomes extend into future generations and across communities – a more educated female population leading to increased participation in labour markets, personal autonomy and boosted economic productivity.

Following her undergraduate studies at A UW, Alinery conducted independent research to learn about the impact of development projects under the Indian Look East Policy in Mizoram and also travelled to Myanmar to document the effects of massive construction projects along the border. Many of these developments will impact on the region where she grew up. Her research has led to her participating in UN conferences, undertaking an internship at the Export–Import Bank of Korea, and presenting papers to the Japan International Cooperation Agency (JICA) headquarters in Tokyo. Having studied local economies and rural businesses whilst at A UW, Alinery was determined to learn more about the macroeconomic forces that often drive change in communities and landscapes such as Mizoram. It was her desire to equip herself with the tools needed to achieve her ambitions – for herself, her community and other young women like her – that inspired Alinery applied to study for an MBA at Sussex.



A university education is designed to equip you to think critically, and to engage in the world as a socially and politically aware person. And that’s what’s so inspiring about these young women, because they see their education as the path which will equip them to make a difference.



130

WHEN IT FORMALLY OPENED
IN 2008, A UW HAD 130
STUDENTS IN ITS FIRST YEAR

–

600

TODAY, IT WELCOMES MORE
THAN 600 WOMEN

–

15

FROM MORE THAN
15 COUNTRIES

LEFT: Alinery in the Jubilee Building at Sussex

RIGHT: AUW students taking part in a campus sports day



“When I applied for this Masters programme at Sussex, I was in Tata Memorial Hospital with my aunt who was recently diagnosed with a malignant tumour in her head. Since she had never been outside of the village, she could not communicate in English nor Hindi, and I was the only one she had to rely on. We only had enough money for flights from Aizawl to Mumbai, but I took the risk and went anyway to the best hospital in Asia. I was giving my interview for the MBA admission from the hospital’s corridors or my Mizoram house at times.”

Despite these challenges, Alinery successfully negotiated the competitive selection process, involving several rounds of interviews, and also received a much sought-after Masters scholarship to enable her to join the Sussex MBA programme. Her attendance would not have been possible therefore without the generous support of Professor Barbara Einhorn and The Reverend Dr Paul Oestreicher.

Now retired, Barbara taught Gender Studies at Sussex, whilst Paul was Honorary Quaker Chaplain from 2004 to 2009. “A university education is designed to equip you to think critically,” says Barbara, “and to engage in the world as a socially and politically aware person. And that’s what’s so inspiring about these young women, because they see their education as the path which will equip them to make a difference.”

Having contributed to the University both academically and spiritually, Barbara and Paul are now proud to count themselves amongst Sussex’s philanthropic supporters. “To be able

to set off a much younger generation on their adventure, for me it’s almost part of a pattern,” says Paul. “When I look back at my life, I think what I have enabled other people to do is much more important than anything I’ve done.”

Alinery’s journey to Sussex reveals what an impressive woman she is, but also tells an important story about her past and her future. “My grandfather was the chief of Pangkhua in Mizoram, a remote village in a boundary area between the present India and Myanmar,” she explains, “As a child, I listened to my father share his childhood memories of how his father maintained his position as Chief through his personal qualities rather than hereditary rights. My grandfather not only served the people with respect and dignity but maintained peace, and protected the lands and rivers from invaders. Influenced by his values passed down through the generations even after the chieftainship was abolished, the concept of leadership as being of service to others was instilled in me from birth.”

Along with Nikita and Tanjila, Alinery was one of the students that Professor Rao highlighted during her 2017 visit when she perfectly captured the potential impact of the partnership between Sussex and AUW. “We have students coming to study at Sussex in September,” she said, “and it will give them the chance to transform their lives – and to give them access to higher education in a way that neither of them will have ever dreamt.

“I hope that at the end of their studies they will go back to their communities or go onto bigger jobs and hopefully, one day, come back to do a

doctoral programme at the University of Sussex.”

A sign of the students’ progress so far is that Tanjila Drishti was selected to represent Bangladesh at the Youth Forum within the Commonwealth Heads of Government Meeting 2018 in London. This diverse community of 53 nations is working together to promote prosperity, democracy and peace.

As Alinery looks ahead, she is determined to use her education to ensure communities at the heart of social change and development are ready and able to engage in the issues that affect their lives. ■

If you would like to support women like Alinery to study a Masters at Sussex, please email ALUMNI@SUSSEX.AC.UK



Winner takes it all...

For many Sussex students, sport quickly becomes the centre of university life – from signing up to hundreds of clubs at Freshers' Fair, to brutal mid-week training sessions and memories of team-building tours that are probably best left behind. Here, alumni remember pivotal performances, victories against the odds and facing a future Wimbledon champion on the courts of Falmer.

ABOVE: The 2014 women's rugby team huddle for a pre-match team talk on campus

See more sporting memories at
WWW.SUSSEX.AC.UK/FALMEREXTRA
and send your sporting memories for
inclusion to ALUMNI@SUSSEX.AC.UK

I remember the rugby team's tradition of throwing each other in the moat after celebrating victories in the Falmer House bar. I believe I held a record in that regard: not once did I get wet. I did have to hide in the food lift between floors one night, however; that was the closest I ever came to suffering that wet rite of passage. Another time, post-game and after too long in the bar, I tumbled all the way down the flight of stairs of the bridge over the bypass. I was accompanied on that descent by a teammate. We have been friends ever since!

JIM TOMKINS (ENGAM 1964)

I have such fond memories of my time being a part of the women's rugby team (affectionately referred to as 'Sugby!'). I grew in confidence in a sport that initially intimidated me and I got to surround myself with such strong, fierce and supportive women. The experience has helped to shape the way I now coach rugby to a new generation of girls and women, using some of the traditions, customs and skills I learnt at Sussex.

MEGAN RICHMOND (LAW AND AMERICAN STUDIES 2013)

I played against Virginia Wade during tennis trials at Sussex in about 1964 – I only hit the ball when I was serving!

MARGARET HILL NÉE FLOREY (SOC 1962)



My last game as captain of the basketball team was at Varsity. The whole team was looking forward to it as we had to reclaim our title after defeat the previous year. It was a close game but we secured the win and all the girls ran over and jumped on me to celebrate at the end. They named me 'basketball queen', giving me a sash, a crown and an album full of memories from the past four years. It made me realise that my team will always be my family!

STELLINA NIKOLOPOULOU (CHEMISTRY 2013)



The fact that I, with my modest talent and extreme lack of speed, became captain of the hockey team in 1988 shows how far we were from the BUSA-winning athleticism of the likes of Loughborough. But doing sport at Sussex was a great way to observe the shifting gender politics of the era. As sportsmen, we moved between two ways of thinking and speaking. In the changing room at the Pavilion, sexist 'banter' was all part of the fun. For the rest of the week, we were challenged by our new, Dale Spender-reading friends to think about how language reflects and reproduces unequal power. So we may not have set the world on fire on the pitch but around us an old world was burning, preparing the way for a more equal future.

PROFESSOR ALEX STEVENS (EURO 1987)

I entered the five-a-side football competition with four other mature students one year just for fun. None of us were physically fit, nor highly skilled in the art of the beautiful game. In fact, we were a motley crew and a sham. It was us, ranging from 30–45 years old, against a brood of younger, cooler teams, usually adorned in matching kit and trendy streamlined hairstyles. Their dainty tricks were impressive, but what we had over each team was an attitude of 'we have nothing to lose'. Our sheer will – or desperation – to win every tackle and not to lose afforded us the advantage. We grunted a lot, usually accompanied by a torrent of colourful language, and we always made sure we reached the ball first. The small, modest trophy still sits on my desk, as a constant reminder that winning is not so much about skill or privilege; it's about having the balls and determination to go for it.

SIMON BROWN (PSYCHOLOGY 2006)

It was terrific to be able to practice tennis every day in the bubble of campus. It was the year Sussex alumna Virginia Wade won Wimbledon, and she even dropped in once or twice. As an American exchange student, I also learned that for away tennis matches, after a win, you stop at every pub on the way home. After a loss, you only stop at every other pub ...

DAVID MARKS (ENGAM 1976)

I came to Sussex from Miami, a hotbed of 'soccer' in the United States given the influence of Latin American and Caribbean immigrants. While I was doing my DPhil in Social Anthropology I was working three jobs whilst trying to write my research proposal, go off to fieldwork in the Caribbean for a year, and come back to write up my thesis. In the middle of all of this, I also played goalkeeper for the University of Sussex First XI and was honoured to be awarded the 1987–88 Player of the Year at a formal banquet!

DR KEVIN YELVINGTON (AFRAS 1985)

Becky Jones (who sadly died in 2010) and I used to play squash in the sports centre when our first year campus laziness got too extreme. It was a whole other world over there; lots of healthy-looking people getting up before 10am, and strange things like that ...

PHILIPPA DAY (ENGAM 1987)



Me and my fellow inmate, Sue, from our guest house in Lower Rock Gardens, were walking round Brighton on the Saturday morning of our first Rag Week when we were hijacked – in a good way – by a coach full of rugby players and asked if we wanted to support the Sussex second team, who were playing an away game. What was a girl to do but join the fun?! We got to know some of the guys on the trip and that kick-started my social life at Sussex. I met a great bunch of people, many of whom I'm still in contact with 50 years later.

CAROL LASHMAR SPITERI (BIOLS 1966)

Thanks to the generosity of alumni supporters, hundreds of Sussex Fund Sports Scholars have been empowered to pursue their athletic dreams. Two talented former scholars look back at their time at Sussex and explain how the support they received helped them to balance their studies with fulfilling their considerable sporting potential.

Sporting heroes





ROSE THOMAS
(BIOMEDICAL SCIENCE 2010)

I played sport every day at Sussex. My first love was football and I was able to continue that in my early years with weekly training sessions. I also trained and played for the hockey team, becoming captain in my final year; and I joined the local club, Lewes.

My years at Sussex were the most valuable of my development as a hockey player. They allowed me to nurture my love for the game, and also fuel the fire and determination needed to achieve my dream of playing for Great Britain. University is such a fragile time for athletes' careers – I am thankful for the positive experiences Sussex gave me, which kept me on track.

I have the best memories of strolling along the high street in fancy dress, determined to nail the Wednesday night theme. We would inevitably end up dancing on the sticky floors of PRYZM and have to drag ourselves up for a three-hour Thursday morning lab session ... I know they scheduled those on purpose!

My Sussex Fund Sports Scholarship allowed me to continue to represent my country during my studies. The athletes in the Wales senior women's team are all self-funded, so the financial support from my Scholarship allowed me to pay for essential equipment, travel, training and competition costs. I was also able to organise a few individual training sessions with external coaches to enhance my development. I loved my time at Sussex and I will always be grateful for the support I had.

Rose Thomas is a goalkeeper for the Welsh international hockey team, for whom she has over 50 caps. She made her debut in 2011, having played in the junior age group national teams since she was 13. She was recently called up to the Great Britain women's hockey squad for the first time.

LEFT AND ABOVE:
Rose in action for Wales

ABOVE RIGHT: Laurence
fencing for Great Britain at
the 2016 Olympics in Rio



LAURENCE HALSTED
(PSYCHOLOGY 2003)

I was on the Sussex Fund Sports Scholarship programme for fencing, but that was by no means the limit of my sporting experience. In fact, fencing even took a back seat for my final two years, to be replaced by rugby, where I had the pleasure of captaining the 1st XV in my third year. Predictably most of the games and nights out at Honey Club seem to blur into each other, but the feelings of camaraderie and pure enjoyment will never leave me.

I am also extremely proud of being a part of an intramural championship-winning six-a-side football team, comprising close friends, none of whom played football for the University. That winning season included a glorious 5–4 victory against a team of handpicked 1st XI football players, and to add insult to their injured pride, our uniform was orange and pink tie-die t-shirts, adorned with fluffy baubles!

I did, of course, fit in some fencing, and it just so happened that Sussex was in the same league as the university of my long-time training partner and two-time Olympic teammate Richard Kruse, which led to some epic battles.

Throughout all of this rigorous sporting endeavour I remember the feeling of support I received from being a part of the Scholarship programme, knowing that I had allies in the University. That meant a lot to me, and I'm genuinely happy to have been able to continue my relationship with Sussex after graduation.

Laurence Halsted has twice competed at the Olympic Games for the British Fencing team, in Rio in 2016 and in his hometown, London, in 2012. He has won silver and bronze European Championships medals, and currently works as the Performance Director for the Danish Fencing Federation.

“
Throughout all of this rigorous sporting endeavour I remember the feeling of support I received from being a part of the Scholarship programme, knowing that I had allies in the University. That meant a lot to me.
”

The incredible opportunities that Sussex Fund Sports Scholarships provide are only possible thanks to generous donations from alumni and friends of the University.

To find out more about the scheme, as well as how you can join your fellow alumni in supporting sporting excellence at Sussex, please visit

WWW.SUSSEX.AC.UK/ALUMNI/SUSSEXFUND

Building a global institute

Geoffrey Oldham, one of the founders of the Science Policy Research Unit (SPRU) in 1966 along with Chris Freeman and Jackie Fuller, died in October 2017, aged 88. Current Director of SPRU, Professor Johan Schot, relates Geoff's remarkable impact on SPRU and his field.

I met Geoff, as everyone knew him, in 2014 when I arrived at SPRU as the new Director and he became one of our most important sources for the SPRU 50th anniversary history. He taught me the SPRU principles of problem-driven research, and inspired me with his accounts of how he navigated, networked and built a global SPRU.

When Geoff took up his position as Deputy Director of the new institute in 1966, he pushed ahead with establishing policy research about science and technology in developing country contexts. In addition to helping secure significant programme funding early on, Geoff, like Chris Freeman, brought to SPRU an intense concern about research impact, and a determination that SPRU's research about science and technology policy in developing countries should make a tangible difference in the world.

Building on his own research and that of colleagues and visiting scholars, he quickly developed a view that this difference should be about methods of harnessing science and technology for development. This differed sharply from the dominant prescriptions and practices of the time which entailed an almost total reliance on the international transfer of technology, expertise and scientific understanding from rich countries. This thinking became a defining feature of SPRU, and much of its outreach and impact over the years has entailed strengthening the capabilities of poor countries to analyse their own science and technology policy problems, and to generate and implement their own policy solutions.



Geoff's views led to a close collaboration with the Institute of Development Studies (IDS), also established at Sussex in 1966. He served on their academic board until his retirement and facilitated a wide range of projects between SPRU and IDS. These included the formulation of the influential 1970 report for the United Nations on Science and Technology for Developing Countries during the Second Development Decade, which became known as the *Sussex Manifesto*.

During his years as Deputy Director, Geoff contributed directly to two cases of extraordinarily significant impact. The first involved

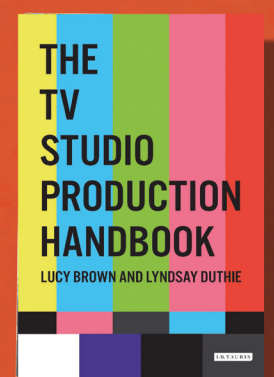
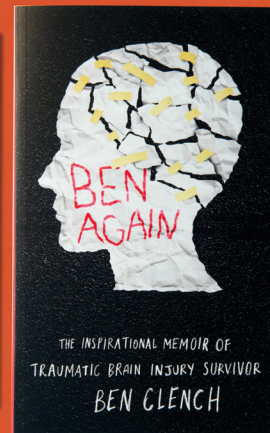
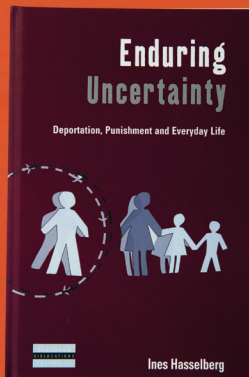
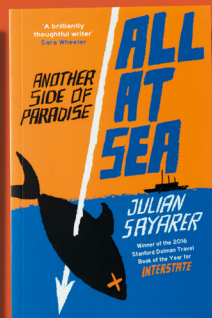
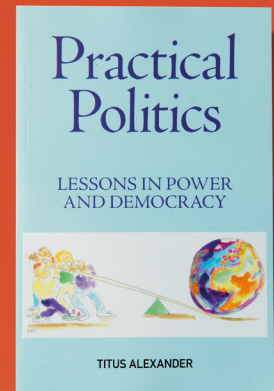
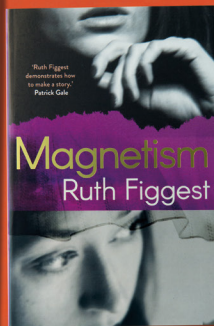
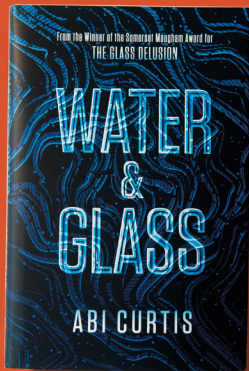
setting up the International Development Research Centre of Canada (IDRC). When IDRC was established in 1970, it focused almost entirely on supporting scientific research and technological development in developing countries in areas such as agriculture, food and nutrition and healthcare delivery. This was a ground-breaking initiative in the early 1970s, and its example encouraged other aid organisations to take similar approaches that have become commonplace today. IDRC was distinctive among research donors by insisting that the bulk of its funding would be directed to developing country researchers

working in developing countries. For Geoff, working in between SPRU and IDRC was ideal because, as he confided to me, the former brought the intellectual depth and inspiration while the latter brought networks and an ability to implement ideas.

The second area of significant impact involved strengthening developing countries' capabilities to undertake their own policy analysis about scientific and technological development. Geoff persuaded the IDRC to include a programme on Science and Technology Policy research in the work of its Social Science Division. Many of the policymakers and scholars from this programme also came to SPRU for a visit, or embarked on a doctorate. This became a major avenue of SPRU's global impact and reputation.

In SPRU, we are all standing on the shoulders of Geoff, the connections he made, and the respect he won. It is easy to see why: because of his vision, his fervent belief in working with genuine symmetrical partnerships, and his generosity, warmth and kindness. I will miss his stories, inspiration and voice.

Read more about Geoff and the scholarships set up in his memory at WWW.SUSSEX.AC.UK/SPRU/ABOUT/HISTORY/GEOFFOLDHAM



Bookshelf

DR ABIGAIL CURTIS (CCS 1997), *Water & Glass*, Cloud Lodge Books. An unconventional dystopian tale about human nature and the animal world, which follows zoologist Nerissa Crane as she tries to make sense of her surreal new life aboard a massive submarine.

RUTH FIGGEST (CCE 2003), *Magnetism*, Myriad Editions. This sharply observed and darkly comic story set in the American mid- and south-west explores the dysfunctional love-hate relationship between mother and daughter Caroline and Erica over a period of more than 50 years.

ROWENA MACDONALD (EAM 1994), *The Threat Level Remains Severe*, Belgravia Books. Shortlisted for The Guardian's Not the Booker prize 2017 and drawing on Rowena's own experience of working in the House of Commons, this debut novel is a compelling black comedy about a love triangle between three back office workers.

HOWARD SPENCER (ENGAM 1984), *The English Heritage Guide to London's Blue Plaques*, September Publishing. Senior English Heritage historian Howard Spencer edits the first official guide to London's blue plaques, revealing the stories of some of the city's most extraordinary residents and the homes in which they lived.

TITUS ALEXANDER (EURO 1970), *Practical Politics: Lessons in Power and Democracy*, Trentham Books. Driven by the idea that practical politics can enable people to tackle the world's most urgent problems, Titus provides insights into power and democracy at multiple levels using wide-ranging case studies.

LIZZIE FINCHAM (EDUCATION 1994), *Green Figs & Blue Jazz*, Cinnamon Press. Award-winning poet Lizzie Fincham approaches loss, sex and death through a constant interplay between the past and present, moving through three evocative and imagistically-rich acts.

JULIAN SAYARER (INTERNATIONAL RELATIONS 2004), *All at Sea: Another Side of Paradise*, Arcadia Books. Journalist and award-winning writer Julian embarks on a fascinating journey to explore the lives of an indigenous people known as Moken, whose small island of Surin sits near the naval border of Thailand and Myanmar.

DR INES HASSELBERG (ANTHROPOLOGY 2002), *Enduring Uncertainty: Deportation, Punishment and Everyday Life*, Berghahn Books. Winner of the 2017 PROSE Award for Anthropology, this book draws on the lived experience of immigration policy, providing insights into the deportation process as it is felt and understood by those subjected to it.

BEN CLENCH (IDS 2011), *Ben Again: The inspirational memoir of a traumatic brain injury survivor*, Unbound Digital. Ben Again tells the poignant story of how Ben determinedly recovered from a near-vegetative and amnesiac state to regain his sense of self and learn to live a normal life again following a tragic accident.

LUCY BROWN (CCS 1993), *The TV Studio Production Handbook*, I.B. Tauris. Co-authored with Lyndsay Duthie, this authoritative 'one-stop handbook' explains the production process from beginning to end, drawing upon live case studies and exclusive interviews from top TV executives around the globe.

See more publications authored by alumni in the past year at WWW.SUSSEX.AC.UK/FALMEREXTRA

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Competition rules: Entry is by logging in to SussexSphere. Alternatively, you can contact the Development and Alumni Relations Office quoting 'Falmer 2018 Competition' by emailing alumni@sussex.ac.uk or telephoning +44 (0)1273 678258.

The draw will be made on Tuesday 31 July 2018. The winner will be announced on 21 August 2018. The winner and runners-up will be notified by telephone and email and the results published on the alumni webpages. There is no cash alternative. Full terms and conditions can be found at alumni.sussex.ac.uk/2018competition

*Sussex Connect is being launched in phases, with the first students joining in summer, from the School of Business, Management and Economics



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When I look back at my
life, I think what I have
enabled other people to do
is far more important than
anything I've done.



DR PAUL OESTREICHER
FROM 'A FITTING PARTNERSHIP'
PAGES 39-41



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