Falmer
The University of Sussex magazine

No 59

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14 / PEOPLE Career astronaut Rosemary Coogan, entrepreneur Darren Tenkorang, human rights champion Albie Sachs. 26 / FEATURES A deeper look into space with the James Webb Space Telescope, how we can help avert an insect apocalypse, challenging taboos about breast health. 40 / FORWARD AND BACK Expert opinions, student stories, graduation memories, Sussex at 60, recent books and podcasts.
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The Editor is keen to hear readers’ views of the magazine and welcomes articles, news and photographs, although publication cannot be guaranteed.

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In the past year, the results of the latest review of research in the UK were published – the Research Excellence Framework (REF 2021). This found that 88% of research activity at Sussex was either ‘world-leading’ (40.6%) or ‘internationally excellent’ (48.4%). Furthermore, the proportion of research impact assessed to be ‘outstanding’ or ‘very considerable’ increased to 93% from 83.7% in 2014. These results confirm Sussex’s place as a major research-intensive university in terms of both overall quality and rigour of our research and its real-world impact.

Moreover, for the seventh consecutive year, the University of Sussex together with the Institute of Development Studies, has been ranked as the best in the world for Development Studies, in the QS World University Rankings by Subject.

In this issue of Falmer, some of our brilliant academics share their research on a wide range of topics – from asserting an insect apocalypse, to exploring images from millions of years ago in deep space and creating innovative solutions for encouraging discussion about breast cancer. And in the latest opinion pieces published in this issue, Sussex experts present their views on topical challenges – ranging from the politics of energy to the science of staying well and exploring how the law can support inclusion.

Sussex students from conflict-torn Ukraine and Afghanistan generously share their insights into the importance of education and the effects of war in their homelands, and express their heartfelt thanks to the alumni and friends who support students like them through the Sussex Fund.

To conclude, for now, I would like to add my thanks to you, our global community of alumni, friends, staff, and students who stay connected to Sussex, who generously support our students and our research, and who give time to mentor, advise and support other members of the Sussex community. You are our greatest ambassadors – true exemplars of the spirit of Sussex. I look forward to meeting many more of you over the coming year.

With my warmest wishes,

Professor Sasha RoseNeill
President and Vice-Chancellor
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Panel discussion on the Future of British Trade policy, London
Inclusive Sussex: In conversation with Professor Tom Shakespeare, Campus
Networking for recent graduates, London
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Issues in Criminal Justice with David Lammy MP, London
Inclusive Sussex: In conversation with Lela Kogbara and Jane Farrell, Campus

OVERSEAS

University of Sussex receptions in Mexico City and New York
University of Sussex receptions in Beijing and Hong Kong
University of Sussex reception in Delhi
University of Sussex reception in Johannesburg
University of Sussex receptions in Accra and Lagos

To receive invitations about forthcoming events in your region, please ensure we have your current address details by emailing alumni@sussex.ac.uk
News in brief
University of Sussex flies high in new world sustainability rankings
The University of Sussex has been ranked third in the UK for sustainable universities in the world, and these rankings indicate that it is well on its way to meeting this.
Lasting Legacy

Nobel Laureate Sir Harry Kroto remembered with chemical landmark blue plaque

A chemical landmark blue plaque, awarded to the University of Sussex by the Royal Society of Chemistry, was unveiled at a special event in June 2022 to honour Professor Sir Harry Kroto FRS’s incredible contributions to science.

The Kroto Science Room, open on the same day as the plaque unveiling, is dedicated to Sir Harry’s Nobel prize winning research. The room contains original fullerene samples containing C60, along with other wonderful Kroto science memorabilia donated by Lady Margaret and Stephen Kroto.

Harry Kroto’s Dusty Democracy created a major scientific legacy, inspiring science education and teaching materials, such as the Vega Science Trust archives and the GEOST video programmes.

The Kroto Science Room is open to visitors to the University and is situated in the JMS building, within the School of Life Sciences. Sir Harry Kroto FRB was awarded the Nobel Prize for Chemistry in 1996, along with collaborators in the USA, for the discovery of a new form of carbon: Buckminsterfullerene (also known as C60 or Buckyball) and other fullerenes. It was a discovery which revolutionised chemistry and opened a world of new opportunities for various industries, from nanotechnology and energy production to medicine. The discovery of C60 was carried out in a series of 12 workshops in front of nearly 1,000 students from Brighton and Sussex Medical School (BSMS), the University of Sussex and the University of Brighton.

Her consent to waive her anonymity also made it possible for the workshops and her personal story to be captured by documentary filmmakers 141 Productions. Their one-off programme, My Dead Body, has been nominated for a Royal Television Society Award.

University News

West Slope development underway

People往返 the South Downs, progress on the University’s West Slope development to create new residential, learning, wellbeing and commercial spaces is well underway.

Inspired by Sussex’s original architect, Sir Basil Spence, the West Slope development will borrow colours and textures from the South Downs that surround the University and complement the existing campus architecture while being thoroughly modern in its design and function.

Designed by One Planet Living, the architecture will be sympathetic to the surrounding nature, using sustainable materials in construction where possible and integrating sustainable technologies to help reduce waste and the environmental impact. This includes the preservation of as many trees as possible, with the relocation or replacement of any felled trees, and the planting of new trees to increase the overall number on campus.

The development forms the next step in Sussex’s vision of being a better university for a better world and is the most ambitious programme it has undertaken in recent years. Works began in spring 2022 and are on schedule to be completed in 2026.

Medical Science

Students and staff praise brave mum who gave her body for public dissection

Medical and allied health students and staff have paid tribute to a “selfless” young mother, whose extraordinary gift to science will educate millions.

Toni Cross, who died from cancer in 2020 at the age of 30, gave permission for her body to be used for medical science and for “public display” to raise awareness of the disease.

The dissection of her body was carried out in a series of 12 workshops in front of nearly 1,000 students from Brighton and Sussex Medical School (BSMS), the University of Sussex and the University of Brighton.

Her consent to waive her anonymity also made it possible for the workshops and her personal story to be captured by documentary filmmakers 141 Productions. Their one-off programme, My Dead Body, has been nominated for a Royal Television Society Award.

Global Impact

Five University of Sussex academics among top 1% of most cited researchers in the world

Five professors from the University of Sussex have been recognised as world-leading researchers after being named on the Highly Cited Researchers 2022 list published in November 2022. The annual list, compiled by global analysts Clarivate Analytics, recognises the most influential researchers from across the globe who have produced multiple highly cited papers in the past decade. The five University of Sussex academics featured on the list are Professor Ian Scoones, Fellow at the Institute of Development Studies; Professor of Technology and Society Adrian Smith, from the Science Policy Research Unit (SPRU) at the Business School; Professor of Energy Policy Benjamin Sovacool, also from SPRU; Professor of Biology Dave Goulson from the School of Life Sciences; and Professor of Cognitive and Computational Neuroscience Anil Seth from the School of Engineering and Informatics.

Professor Gillian Ruch from the Department of Social Work and Social Care has also been named as one of the world’s most impactful academic scholars in her field following a study by SAGE Journals that looked at the top 100 contributors to social work journal scholarship.

Cul ture, Equality and Inclusion

Black Cultural Archives host Sussex’s inaugural event for its ‘Black at Sussex’ programme

At an intimate event in September, members of the University of Sussex, Black Cultural Archives and prominent figures from arts and culture came together to celebrate the first event of the University’s five-year ‘Black at Sussex’ programme.

Black at Sussex aims to improve the experience of Black students at Sussex through the celebration of University of Sussex Black alumni and their contribution to Black life, alongside a programme of critical discussion about the experience of being a Black student at Sussex.

Hosted at the Black Cultural Archives, which was founded by Sussex alumni and curator of Black British history, the late Len Garrison, the event recognised the life and work of Garrison and marked the beginning of the University’s collaboration with the UK’s home of Black British History.

The event, titled ‘Photography, Anshing & Power’, explored the importance of photography in documenting and archiving the Black experience and featured internationally renowned photographers Charlie Philips and Eddie Otchere, who spoke about the Black at Sussex photography project, for which they were commissioned to take portraits of several influential Black University of Sussex alumni.
What attracted you to Sussex?
I have held the University of Sussex in high esteem for over 40 years, and it is an incredible honour to have been appointed Vice-Chancellor of this great university. Back in the early 1980s, I applied to study at Sussex as an undergraduate for several reasons, including its ground-breaking interdisciplinarity, its reputation for radical politics and for having a lively lesbian and gay student community. I didn’t take up my place to read History in the School of European Studies (as it was then) – choosing instead the city lights of London and the interdisciplinary social science BSc (Econ) degree at LSE. But throughout my academic life, Sussex has held an important place in my intellectual imagination. I have followed the research and writing of dozens of brilliant Sussex academics, and have had the privilege of collaborating with some of them, of being invited to take part in conferences and seminars at Sussex, and to examine Sussex doctoral students. I have also worked alongside many amazing Sussex alumni in my previous jobs at the University of Leeds, at Birkbeck, University of London, at the University of Essex, and at UCL, and have been very aware of how their distinctively Sussex education shaped their innovative research trajectories.

Sussex has an impressive academic heritage, particularly in establishing new interdisciplinary fields of study. It is the radically global university that has been number one in the world for Development Studies for seven years running, that was the first to establish a unit dedicated to Science Policy research, and that is playing a unique role in advising governments about sustainability and energy policy. Sussex has had five Nobel prize-winners in its relatively short history and it played a pioneering role in the field of sexuality studies, with its unique and ground-breaking Masters programme in Sexual Dissidence. And Sussex has made a special contribution to the struggle against apartheid, with the first scholarships for students from South Africa dating back to 1973, and a long history of anti-racist and post-colonial scholarship. All these features attracted me to the University – along with, I will admit, some lifestyle factors: a love of Brighton that dates back to childhood days out on the pier armed with a bag of pennies to feed the waterfall slot machines, a penchant for the city’s fabulous vegetarian and vegan restaurants, and a passion for open-water swimming. I also love the Sussex Downs and the campus, and I am a huge Basil Spence fan. All in all, it is wonderful to be at Sussex.

And what are your long term ambitions for Sussex?
I want Sussex to be recognised internationally as a university that makes a unique, innovative, and transformative contribution to environmental sustainability and human flourishing through our research and enterprise, through our educational and extracurricular provision, and in our institutional life and actions. This means Sussex becoming a university community in which all students and staff feel that they are in the best place to realise their goals and ambitions, where they can be themselves and do their best work, and in which diversity of background, identity, belief, thought, disciplines, and method is understood to be fundamental to our sense of community and our success.
Which life experiences have influenced your career choices?

That’s a really difficult question, because I think I draw on everything that I have learnt over the course of my life in my work today. In brief though, my research interests are rooted in my life experiences, as is the case for many sociologists and gender studies researchers. My research isn’t about myself, but it has always been inspired and conditioned by questions and concerns that I have felt matter, that are meaningful to me.

I wrote my PhD about Greenham Common, having first visited Greenham at the age of 15, and then having left school to go to live there when I was 17 – because saving the world from nuclear war was vastly more important to me at that time than finishing my A-levels. My life was fundamentally changed by that decision, and I am who I am because of all that I learnt through living at Greenham and being part of that social movement of women.

Some years later, having resumed my more formal education, I realised, as I scoured the library at the LSE, that the PhD students, that no one had yet undertaken a systematic academic study and analysis of Greenham, that I could and should do, Greenham was where, as an isolated young lesbian and feminist, I found community, and encountered a rich array of ideas that I never otherwise would have done.

My undergraduate tutor advised me, in the context of the Thatcher government, that I was highly unlikely to secure funding to do a PhD about Greenham Common. But I applied anyway, and amazingly (and I am still somewhat amazed) I was awarded a studentship by the Economic and Social Research Council. My passionate belief in curiosity-driven research, in intellectual diversity, academic freedom, and the need for universities to support researchers pursuing unfashionable and non-conformist in the hostile world of the 1980s, has undoubtedly shaped my abiding interest in difference and diversity, equality and inequality, inclusion and marginalisation.

My later work on the practices, politics and ethics of the methods that are used by sociologists and gender studies researchers. My research interests are rooted in my life experiences, as is the case for many sociologists and gender studies researchers. My research isn’t about myself, but it has always been inspired and conditioned by questions and concerns that I have felt matter, that are meaningful to me.

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Best thing about Brighton?

So many things – but if I had to choose one thing, it’s that Brighton is a city where those who have often felt on the edge of things elsewhere find a place where they can be included, and where they can have fun. It’s a place of creativity, cultural innovation and community. What do you do to unwind outside work?

I spend time with Nina, my wife, and try not to talk about work too much. I swim outdoors, most days. I walk Mish, the beautiful and highlyainted standard poodle who shares our home, I cook, I hang out with friends (not enough). Favourite place on campus?

It has to be Basildon’s stunning Meeting House. It sits at the heart of the Sussex campus – and in many ways, it is the heart and soul of the community. The Meeting House is one of the most powerful and realised university buildings in the world – a non-denominational, all-faiths and non-spiritual communal space. The circular structures, constructed from a honeycomb assembly of individual concrete blocks, and the beautiful play of light through the multi-coloured rainbow of glass windows, offers Sussex a metaphor for thinking and acting differently. The University as an open and hospitable forum for the meeting of individual minds and ideas.

Where does the University of Sussex stand in relation to the principles of freedom of speech and academic freedom? How do these principles sit alongside commitments to equity, diversity and inclusion?

SUSSEX has, throughout its history, been animated by an exceptional and distinctive spirit of intellectual freedom and challenge and, simultaneously, by a profound commitment to advancing equality and social justice. Our commitment to academic freedom and freedom of speech is foundational. It is explicit in our Charter and Statutes, as well as being a legal and regulatory requirement of us as a university.

In the UK, we are living through a period of intense disengagement and polarisation about many political and cultural issues, amplified by social and traditional media. This plays a regulatory requirement of us as a university.

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What’s your approach to teaching and learning?

My approach to teaching and learning involves a five part-time clinical placement in an NHS Trust seeing individual patients and running psychotherapy groups, as well as running and reflecting on supervised non-clinical groups within the university I was working at. I gave a powerful understanding of psychosocial processes and dynamics that became a vital part of my ‘toolkit’ as an academic and a universitarian.

We all have complex lives and identities, and our working lives are inevitably impacted by who we are, our experiences at home and our personal relationships. I am passionately committed to enhancing the diversity of the whole Sussex community, and to ensuring that Sussex is a place that supports and champions those who have experienced marginalisation and exclusion, and who are facing challenging life circumstances.

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Every year, thanks to the generosity of alumni and friends around the world, the University provides international and home students with the opportunity to come and study at Sussex on a scholarship programme. Brittany Schultz is one such student. Here is her letter to alumni.

Dear Supporters,

First of all, I want to say a huge thank you! This Masters has been a far-off dream of mine for some time and I could not do it without a scholarship. I cannot believe I am finally here, and time is already flying by...

Before moving to England, I spent four years living in Singapore, teaching English to students between three and 12 years old. As rewarding as it was, I knew I wanted to transition to refugee education because I had previously worked with refugee mothers and their toddlers at a non-profit in Arizona. I decided to pursue a Masters degree to make this possible. The University of Sussex has the best development programme in the world and the International Education and Development MA was perfectly in line with my goals and interests.

Now that I am here, I have been blown away by the depth of knowledge and expertise of my professors who seem to have worked in every major international organisation in this field. The course is better than I could have imagined and is challenging my beliefs and changing my perspective constantly. I have been delighted by the resources available to me at the University and have been spending a lot of time at the Library and in the Student Centre, reading about theories in the field.

The majority of the people on my course are also international students, so most of us are in the same boat, building a life in a new country. I am thankful that my fellow students have all been warm and welcoming and I have found it easy to make friends. I am learning about different cultures and from their experiences teaching around the world.

Sussex has provided me with many opportunities to get involved and I have applied to be a Student Ambassador. I also have a volunteer training session coming up with IntoUniversity – an organisation that partners university students with a disadvantaged youth for academic, social and emotional support with the future in mind. I am looking forward to working with this organisation.

Outside of class, I am finding time to explore Brighton and the surrounding areas. One of the things I love most about living here is the proximity to the South Downs National Park. On the weekends, I have been enjoying finding new hiking trails through the woods and hills, and at the seaside. The Seven Sisters cliffs are breathtaking and the rolling hills continue to amaze me.

After living in a big city at the equator for years, it has been refreshing to experience the nature and seasonal changes that the Brighton area offers. My partner is British, and she has proved a good tour guide. We sometimes take trips to nearby towns. One weekend we went further afield, to Cardiff, with friends and explored some castles. We have a trip to Stonehenge coming up soon too! I am hoping that I will get a chance to explore more of the United Kingdom over the summer and would love to spend some time in the Lake District.

Lastly, I must mention that I absolutely love all the food here! The roast dinners, cream teas and fish and chips by the sea have been filling my soul, as well as my stomach.

All of this would not be possible if I had to work to support myself during my studies, so again I would like to say a heartfelt thank you for supporting my scholarship! I am keeping you in mind as I complete my MA this year in beautiful Brighton.

Yours gratefully,

Brittany Schultz
Dr Rosemary Coogan, the first female UK astronaut for the European Space Agency (ESA), has fond childhood memories of the University of Sussex.

From the age of four months to five-years-old she lived in East Slope while her parents studied at the university. Twenty years later she returned to undertake a doctorate in astrophysics.

“As a child I remember it being this really interesting, multicultural environment,” she says. “And because Sussex was familiar to me (and the Astronomy Department is fantastic), I came back to do my PhD.”

Rosemary, 32, returned to campus again in 2023 before starting her intensive astronaut training in Cologne, Germany. She revisited the labs and offices where she had carried out research on how galaxy formation is affected by the surrounding environment.

She also caught up with former colleagues, including her PhD examiner Dr Stephen Wilkins (now Head of the Astronomy Centre), and Professor Kathy Romer, who was her pastoral care tutor during her studies. They are thrilled with Rosemary’s stellar new job, which was announced by ESA in November 2022.

“We knew she had applied, but you never dare assume it’s going to work out,” says Kathy. “It sends out a huge message, not just to our students, but to every girl in primary school who will think, ‘that could be me!’”

Personable, curious and clearly very smart, Rosemary is also surprisingly modest about why she thinks she made it to the final five out of more than 22,000 applicants to become one of ESA’s career astronauts.

“I had been keeping an eye on when ESA might be recruiting again – the last time was in 2008. I think I was lucky that I was about the right age and that I matched the profile of what they were looking for.”

As a career astronaut, she will be trained to take part in space flights, space walks and could one day be taking her first steps on the Moon. The space agency also recruited 11 reserve astronauts, who will be given opportunities for special projects, and the UK’s John McFall, who, as an amputee, was selected to become ESA’s first parastronaut.

The selection process involved assessing Rosemary’s physical fitness for endurance in challenging conditions, her cognitive speed and analytical skills, and psychometric tests to see how she copes under pressure.

“We did a lot of work with psychologists,” she says. “We had group exercises where they looked for balance between group leadership and being able to support the leader as a team member. It seems an essential strength is the ability to stay calm.”

“I’m also interested in ESA’s other activities – from observations via their satellites for monitoring effects of climate change, to studying what happens to the human body in space and how it affects ageing.”

Fly me to the moon

One small step for the UK, one giant leap for Dr Rosemary Coogan (Astrophysics 2015), who was recruited to be the European Space Agency’s first female UK astronaut in November 2022.

WORDS BY JACQUI BEALING
We did a lot of work with psychologists...where they looked for balance between group leadership and being able to support the leader as a team member. It seems an essential strength is the ability to stay calm. Depending on what is required of her, Rosemary may join projects on board the International Space Station (ISS) or be part of ESA’s human flight missions to the Moon and to Gateway, an orbiting space station that will be a staging post for missions to the Moon. These are expected to take place by the late 2020s and will look at how feasible it is to build a base there.

“I have always been fascinated by space, but I wanted to contribute more to ESA’s efforts in terms of exploring our local solar system,” says Rosemary. “I’m also interested in ESA’s other activities – from observations via their satellites for monitoring rising sea levels and other effects of climate change, to studying what happens to the human body in space and how it affects ageing.”

The next stage for Rosemary is a 12-month intensive training schedule. It begins with classroom-based activities, such as learning about space law and how it applies to exploration, as well as looking at different systems on board the ISS and aspects of astrophysics, for which she is well prepared.

The recruits will then move to physical activities, including underwater training in a space suit with full-size replicas of the space station. “This is the closest we can get on Earth to learning what it’s like to manoeuvre in a weightless environment,” she says. “It requires us to have a SCUBA diving licence, which I already happen to have having been a member of the SCUBA Diving Society at Sussex!”

In fact, Rosemary is happy to confirm that Sussex has played a major role in shaping the direction of her life – from her early years happily playing with her international pals at the University’s nursery, to her experience of studying at Sussex after taking her undergraduate and Masters degrees in physics and astronomy at the University of Durham.

“I found the learning environment at Sussex wonderful,” she says. “I like that the Astronomy Department’s research is extra-galactic, and I like the breadth. There were so many people studying the things that I was interested in, but also things that were quite different. It’s an open place in which to learn, and I felt like I was given a lot of options. I wasn’t channelled in one direction.

“It’s also a supportive environment, especially for all genders in science. As a PhD student, I was in an office of three women and two men, and I thought there was a good representation of gender among the staff too.”

Although she completed her PhD in 2019, Covid restrictions meant that Rosemary had to wait until 2022 to attend Sussex’s mammoth summer graduation celebration, which she finished in style with fellow graduates and members of the Astronomy Department by having an intergalactic battle at LaserZone in Brighton.

When she received the exciting news last November that she was about to become an astronaut, she was working near Paris for the French space agency CNES at CEA-Saclay, analysing data from the early Universe via the James Webb Space Telescope.

That said, having a passion for astrophysics isn’t essential for an astronaut. Rosemary points out that her fellow recruits have come from a range of occupations, such as engineering, aviation, medicine and neuroscience. But she acknowledges that her outside interests, which included training as a petty officer cadet with the Royal Navy Sea Cadets in Brighton and being promoted to Midshipman of the Royal Naval Reserve, show she is suited to and performs well in highly structured environments.

She anticipates that when she is finally on her first mission, any anxiety over which controls to operate in the space capsule is likely to have been ironed out. “We will have rehearsed the procedures so many times that I’m sure it will become second nature.”

During the months she is away, she expects she may miss her family and friends, and some of the simple pleasures of life on Earth, such as making toast and having a shower (both impossibilities in space).

“I’ll be able to take a small box of personal treasures with me,” she adds. “I really enjoy fantasy adventure board games, and I would love to work out whether it’s possible to roll a die in space, though I’m sure the excitement and privilege of being on a mission will far outweigh missing any creature comforts.”

Rosemary’s appointment sends out a huge message, not just to our students, but to every girl in primary school who will think, ‘that could be me!’
Sussex alumni Darren Tenkorang (Business and Management 2012) founded TRIM-IT, a mobile barbering service with franchises across the UK. He has recently become an Entrepreneur in Residence at the University.

As an Entrepreneur in Residence, I'll be supporting students at Sussex throughout their entrepreneurial journeys, whether they are about to embark on one or just thinking about what makes a good idea and how to turn it into something tangible. I am holding workshops and mentoring sessions and am on a judging panel until the end of the 2022-23 academic year.

Before I came to study at Sussex I considered becoming a social worker. I knew that I wanted my journey to wrap around young people, but I am ambitious and I thought my respect as a social worker would be too small. I realised that business would be a better route for me. Although I am not a social entrepreneur, my end goal is to give back to young people – and I want to use my own resources to do that.

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I studied business and management at Sussex mainly because I achieved an A* in Business Studies A-level. I thought that’s a signifier that I am actually alright at the theory of business. I didn’t particularly know what I wanted to do but I knew that it involved leadership. Business Studies doesn’t position you to own a business, but I knew that it involved leadership. Business Studies doesn’t position you to own a business. It positions you to operate within a business.

I found out I was dyslexic while on a work placement as part of my degree. I thought that’s a reason to drop by the side-lines. I was at school. I thought I would do a pretty good job, I ran a campaign, went round to all the schools and gave morning assemblies – it was very daunting at the time. My approach didn’t rest on my manifesto. I wanted to get young people on my side by being charismatic.

People say I am calm and collected. I’m not super-animated, but I’ve been told I have an aura of confidence. I try to be authentic. I’m comfortable not being the smartest person in the room. It means that when I am speaking, I don’t rest on my manifesto. I wanted to get young people on my side by being charismatic. I didn’t rest on my manifesto. I wanted to get young people on my side by being charismatic.

Throughout my journey I’ve mentored quite a few aspiring young black entrepreneurs. I am super-passionate about doing that. When I was growing up, I didn’t have many people that I could look up to. At the time, business gurus were Sir Alan Sugar or Sir Richard Branson, but those guys didn’t look like me and were not from the same background. Jamal was such an inspiration.

I was voted Youth Mayor of Lambeth when I was at school. I thought I would do a pretty good job. I ran a campaign, went round to all the schools and gave morning assemblies – it was very daunting at the time. My approach didn’t rest on my manifesto. I wanted to get young people on my side by being charismatic.

One of my biggest heroes is Jamal Edwards MBE. He was Entrepreneur in Residence at Sussex until his untimely death last year. I just loved the way he started his music business SBTV from the ground up. He turned a hobby into a massive organisation that had such an impact on popular culture, leading to the discovery of artists such as Ed Sheeran and Emeli Sandé. He also did a lot for black popular culture and entrepreneurs in general. I met him – he had a haircut several times. He invited us to a lot of events and encouraged our business.

Winning the £10,000 StartUp Sussex prize in 2015 gave me an element of validation and the confidence to continue. In the early days when you have a thousand ideas, confidence is priceless. It is what will determine whether you spend the next five years doing it with me (it’s been eight) or if it’s something that you drop by the side-lines.

What differentiates a good, profitable business is largely the execution. An A* idea with B-grade method is worse off than a B-grade idea and A* team. Execution really is everything, which means that you need to be able to reverse engineer what you do so that you can move forward. We learned a lot on the way.

TRIM-IT is part of my identity that is rooted in the support that Sussex gave me. With my business partner Nana Darko (Mechanical Engineering 2013), we grew the business by franchising across the UK. We went from six to 68 during the pandemic because there was such a high demand. We are now at the stage of selling the company because we think it will be in better hands with capital that outstretches our own. I have been offered quite a few roles because of the credibility that I have – such as Head of Operations and Head of New Business at different organisations – but I am looking for the right opportunity.

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Human rights champion Justice Albie Sachs (Sociology 1967) talks to recent graduate and Mandela Scholar Mpogi Mafoko (Conflict, Security and Development 2021) about his Sussex experience and what the future holds for their home country of South Africa.

WORDS BY EMMA WIGMORE

MPOGI MAFOKO: When I was at high school in Durban, I remember you came to talk to us about racism and your travels. I recall being completely awestruck and thinking, “What I would give to have a conversation with this man!” Now, just under a decade later, here we are. Having just graduated myself, I’d really like to know what you took away from your time at Sussex?

ALBIE SACHS: I’m a Sussexophile. I love Sussex because it allowed me to go ahead and write my PhD in my own style, in my own language. In purely pedagogical terms, I gained two really valuable things; one was being able to take each chapter of my thesis to seminars and get wonderful critiques, the second was a real spirit of collaboration between doctoral students. Nothing went wrong at Sussex for me – and lots went right.

MM: You returned to Sussex in 2020 to deliver the annual Draper Lecture. In your speech, you referred to the spirit of ‘Ubuntu’. What is Ubuntu and what does it bring to a country?

AS: The concept of Ubuntu values each human being as an individual person, but it also accepts that we are nurtured by our shared humanity; we’re enriched by it. In the years when we were struggling for freedom, we didn’t use the term. The intensity of the solidarity and the commitment to overthrowing apartheid was so strong, but then we found we had a beautiful constitution and needed to learn to do the ordinary things.

Ubuntu is not a term that belongs to any political party or religious group. It had for me, and I think for many others, enormous explanatory power; how people could retain their humanity despite all the insults, the disregard and the physical and mental oppression. By bringing the term into our constitution, it provided a dignified way of manifesting a common citizenship. It was an epilogue that said this would be done, not in the spirit of vengeance and retaliation, but in the spirit of reconciliation and Ubuntu.

MM: Since apartheid ended, a lack of upward mobility amongst the poor and disenfranchised, political corruption, widespread crime and a challenged economy remain problems. What would you say to those who describe South Africa as a failed state?

AS: Those issues are overwhelmingly inherited from what went before. During apartheid, the majority were disenfranchised. It went with Bantustan, the pass laws, the migrant labour system and all the beautiful things reserved for whites only. We shattered that system. What we achieved was to create a single united South Africa out of a very divided country. We created the franchise, not only to destroy apartheid but to give people the right to mobilise.

People ask me, “Albie, is this the country you were fighting for?” I pause and say, “Yes. It is the country I was fighting for, but it’s not the society I was fighting for.” It’s society that we now must change. We can do that by using the country, our institutions, the things we gained, our consciousness and our solidarity.”
**MM:** Of all your work outside of South Africa, what has made you most proud or had the greatest impact?

**AS:** I’m most proud of producing a code of conduct for the African National Congress (ANC). It was...
Sussex alumni all over the world have been active in starting new projects, making an impact at local, national and international level, achieving career milestones and gaining recognition. Here is a snapshot of their news.

**Community heroes**

**EVA ILADI (HUMAN RIGHTS 2015)**, after completing her studies at Sussex, returned to her home country of Nigeria and worked with Save the Children to provide child-protection and non-formal education services in refugee camps across the country. After this, she worked with the Green NGO SolidarityNow and supported their Child and Family Support Hub programme. She now works in public education as a teacher.

**MARIYAM AHMED TOOR (EDUCATION 2018)** is Programme Manager at SEED Ventures for Enterprise Challenge Pakistan, an initiative of the Prince’s Trust International. The programme aims to instill entrepreneurial zeal and acumen within 14-18-year-olds and includes one-to-one mentorship with industry experts, an exciting business simulation game and an online curriculum. Mariyam was invited to the Commonwealth conference in Rwanda, 2022 to present her work to HRH The Prince of Wales.

**SAMIRAH BELLO (GLOBALISATION, BUSINESS AND DEVELOPMENT 2020)** re-joined ThriveAgric after graduating from Sussex and created their Partnerships division. In her current position she manages 15+ partnerships that impact smallholder farmers in Africa. She is also leading the initiative to increase the female impact of the company and as a result ThriveAgric has hired more women and onboarded 13,000+ female farmers.

**FADI ZAGHMOUT (CREATIVE WRITING 2018)** has established Rivuuz, an online marketplace that connects customers to experienced and vetted service providers for their building project.

**SHANNON SEVERY (MBA 2018)** founded Brighton Cocktail Company. Based in Seven Dials, Brighton, her bar and kitchen allows communities to connect over great cocktails and food. She is also in the process of launching her new online store, so you can bring the experience of her brand into your own home.

**New ventures**

**CARLY MARTIN-GAMMON (MEDIA STUDIES 1997)** and CAROLINA DORITI (MEDIA STUDIES 1997)**’s joint passion to communicate issues related to sexual freedoms and body rights. In 2012, he released his first novel Coyote, which helped him to secure a Chevening Scholarship to study at Sussex in the same year. Since graduating, he has released three other books that look at women’s issues, homosexuality and marriage in the Middle East.

**Carolyne avellaneda (environment development and policy 2017)** and **Jon McGlashan (international business 2014)** have founded Bubblekit Ltd, a new biodegradable packaging for the personal care market.

**michelle chimuka (entrepreneurship and innovation 2019)** has established Rivuuz, an online marketplace that connects customers to experienced and vetted service providers for their building project.

**John Gill (history of art 1988)** has been made an MBE for services to the arts, culture and education. John is governor at Brighton University and is also a member of the joint board of Brighton and Sussex Medical School.

**Rachel Semyen (English 1965)** has been awarded an MBE for services to heritage in the 2022 Queen’s Birthday Honours List. She is chair of trustees and founder of the Yorkshire Air Museum and Allied Air Forces Memorial at Elvington, near York.

**UK honours**

Five members of the University of Sussex community were honoured by His Majesty King Charles III in his first New Year Honours list for their outstanding contributions across various areas of work including finance, literature and arts and culture:

**Sir Keith skeoch (economics 1975)** is the former CEO of Standard Life Aberdeen and received a knighthood for services to the financial sector.

**Professor kimberley griffith reynolds**, a former Sussex academic, has been awarded an OBE for services to literature.

**Stephen ingledew (law 1985)** has been awarded an OBE for services to the UK financial technology sector. He is currently the chairman of FinTech Scotland, which he formed in 2018.

**Matthew LOWNDS (MATHEMATICS 1993)** has been awarded an OBE for services to British foreign policy for his contributions to the UK government response to Russia’s invasion of Ukraine in 2022. Matthew, along with family and friends, established the Harry Lownds Memorial Fund, which offers scholarship support to applicants for the Genetic Manipulation and Molecular Cell Biology MSc.

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**Dr kevin smith (science and technology policy 1993)** has been awarded the Order of Ontario, the province’s highest civilian honour for outstanding achievements. The Order of Ontario recognises exceptional leaders from all walks of life and diverse fields of endeavour whose impact and legacy have played an important role in building a stronger province, country and world.

**Milestones**

**Dr Sharon ann holligate (Physics 1989)** has been awarded the prestigious Institute of Physics 2022 William Thomson, Lord Kelvin Medal and Prize for her work in communicating science to a wide variety of audiences and for positive representations of scientists from non-traditional backgrounds.

**Dr ELKE WEESJES (HISTORY 2006)** has been awarded the prestigious Institute of Physics 2022 William Thomson, Lord Kelvin Medal and Prize for her work in communicating science to a wide variety of audiences and for positive representations of scientists from non-traditional backgrounds.

**Dr elke weesjes (History 2006)** has been awarded a MELLON/ACLS Community College Faculty Fellowship to support her research into the lives of the Kwa Kwa families in the latter part of the 20th century. As seen through the eyes of their children, her project explores Klan members’ different interpretations of their movement’s values and ideology and complements prior studies into Klan identity and mentality in the 1920s.

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See more Alumni News, and share your stories, at www.sussex.ac.uk/falmer
First light

After more than 30 years of development, the James Webb Space Telescope launched on Christmas Day 2021. The astonishingly sharp pictures captured by the telescope reveal previously invisible areas of star birth, shattering astronomers’ preconceptions about the early Universe.

WORDS BY DR STEPHEN WILKINS

The James Webb Space Telescope (JWST) is humanity’s newest flagship astronomical observatory. It is a collaboration between NASA, the European Space Agency (ESA) and the Canadian Space Agency (CSA), with significant UK involvement in its development and use. It was designed to answer a wide range of outstanding questions in astrophysics, including what is the composition of planets around other stars – so-called exoplanets – and do any harbour life? How were the elements vital for life on Earth created? And how did the first stars and galaxies form and evolve?

To answer these questions, JWST was designed with enhanced capabilities over its predecessors, such as the venerable Hubble Space Telescope, which turns 33 this year. These capabilities include a mirror that is almost six times larger than Hubble’s, which means not only can it collect more light enabling it to see fainter, more distant objects, it can also see objects in more detail. And unlike Hubble, JWST is designed to observe the Universe in the infrared – invisible light beyond the red end of the spectrum – which allows it to peer through dense clouds of gas and dust to the sites of star formation.

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This focus on the infrared motivates JWST’s two most striking design features: its gold-plated mirror (gold reflects infrared light far better than steel or aluminium) and its large sunshield, which keeps the telescope cool (warm objects emit infrared light). In addition, JWST was built with spectroscopy in mind; the ability to split light into individual colours or wavelengths. This is essential to measure the chemical composition of alien atmospheres and distant galaxies.

Following the Christmas Day launch in 2021, JWST spent the next month making its way to Earth’s second “Lagrange point” (L2), a special location in space five times further away from the Earth than the Moon. From this vantage point, the telescope is free from the glare of the Earth, Moon and Sun allowing it to see further and deeper than ever before.
After six months of commissioning, during which the telescope and instruments were turned on and tested, JWST released its first operational images. Such is the extraordinary nature of JWST that the first image was released by the President of the United States to international fanfare. Since then, there has been a steady stream of new data received from JWST, such as relatively nearby areas of star formation, for example, the Pillars of Creation. It has observed objects ranging from Jupiter to newly forming stars—and even remnants of dead stars. However, most exciting are the views of otherwise blank patches of sky, the so-called Deep Fields. While these patches of sky appear empty to smaller telescopes, when observed by JWST they are found to contain thousands of faint objects which, as it turns out, are mostly galaxies—collections of stars, gas, dust, planets and dark matter—that stretch back over most of the Universe’s history.

This remarkable “time travel” footage is made possible because light travels through the Universe at a finite, yet swift, speed. This means the further away we look, the further back in time we see. For example, when we look at the Moon, we’re actually seeing it as it appeared just over a second ago. The Deep Fields contain objects that stretch back over almost the entire history of the Universe, and it’s the most distant objects that we’re most interested in. We’re observing galaxies only a few hundred million years after the big bang, some of which are likely forming stars for the first time.

JWST is less than six months into what could be a 20-year mission or more. Already, it has provided amazing new insights into our Universe and begun to answer many of our outstanding questions. That said, perhaps the most exciting prospect is if JWST discovers something entirely unexpected that could shine further light on the fundamental nature of the Universe and where we all came from. Hopefully, time will tell.

Learn more about JWST from Dr Stephen Wilkins at www.sussex.ac.uk/falmer
Research news

Research news in brief

Climate crisis calls for systemic change to finance

A report published by the Deep Transitions research team at the University of Sussex and Utrecht University, along with the Global Investors Panel, addresses how CLIMATE CHANGE, BIODIVERSITY LOSS AND GROWING INEQUALITY REQUIRE TREMENDOUS LEVELS OF FINANCIAL INVESTMENT, but that simply ‘investing more’ is insufficient, and instead urges a new perspective, metrics and 12 actionable principles for investors to deploy.

German government assigns Sussex spin-out €67M quantum computer contract

Physicists from University of Sussex spin-out company, Universal Quantum, have secured a €67 million investment from the German government’s Aerospace Center to BUILD TWO SCALABLE TRAPPED ION QUANTUM COMPUTERS WITHIN THE NEXT FOUR YEARS: a single-chip quantum computer with a sophisticated electronic quantum computer chip, and a multi-chip quantum computer that will consist of up to 100 quantum bits (qubits).

Icy discovery in space

An international team of scientists, including Professor Wendy Brown from the University of Sussex, has DISCOVERED DIVERSE ICES IN THE DARKEST, COLDEST REGIONS OF SPACE so-far measured, which are around 500 light years from Earth. The discovery was made using the James Webb Space Telescope and is believed to shed light on the building blocks of life.

A ‘cognitive reserve’ protects against pre-disposition to dementia

A 60-year study published in Neurology, the American Academy of Neurology’s medical journal, is the first to show that building mental resilience across a lifetime – a ‘cognitive reserve’ – through education, socialising, jobs and several leisure activities, can REDUCE THE RISK OF DEMENTIA, even among those with low childhood cognition or a genetic predisposition to the condition.

How a seaweed second skin could transform health and fitness sensor technology

Scientists have successfully trialled new biodegradable health sensors that could change the way we experience personal healthcare and fitness monitoring technology. The team have developed the new health sensors – such as those worn by runners or patients to monitor heart rate and temperature – using natural elements like rock salt, water and seaweed, combined with graphene. The researchers found that their sustainable seaweed-based sensors outperform existing synthetic based hydrogels and nanomaterials, used in wearable health monitors, in terms of sensitivity.

And the more sensitive a sensor, the more accurately it will record a person’s vital signs. Dr Conor Boland, a materials physics lecturer in the School of Mathematical and Physical Sciences, said: “One of the most exciting aspects to this new development is that we have a sensor that is both fully biodegradable and highly effective.” This research breakthrough follows the publication of a blueprint for nanomaterial development by Dr Boland in 2019, which presented a method for researchers to follow in order to optimise the development of nanomaterial sensors.

Sussex researchers use Artificial Intelligence to personalise cancer patient treatments

Researchers at the University of Sussex are using Artificial Intelligence technology to analyse different types of cancer calls to understand different gene dependencies and to identify genes that are critical to a cell’s survival. By developing a prediction algorithm that works out which genes are essential in the cell by analysing the genetic changes in the tumour, the researchers can identify actionable targets that, in time, could guide oncologists to personalise cancer patient treatments.

“Through our research, we were able to identify cell-specific gene dependencies using only the DNA sequence and RNA levels in that cell, which are easily and cheaply obtainable from tumour biopsy samples,” said Dr Frances Pearl, Senior Lecturer in Bioinformatics in the School of Life Sciences. “This is an incredibly exciting step in our research, which means we can now work to improve the technology so that it can be offered to oncologists and help in the treatment pathways for their patients.”

New framework to tackle exclusion from digital health and care services

Experts from the University of Sussex and NHS Sussex, supported by the Kent Surrey Sussex Academic Science Network, have developed a framework to help improve access to digital health and care services for those who need it the most. The new framework – which is designed to be used by health and care commissioners, service leads and digital teams – aims to remove the barriers people often face when trying to access digital health and care services, due to digital exclusion.

Digital exclusion occurs when a person is unable to access or use digital products that they need for everyday life. Research shows everyone is at risk of digital exclusion over the course of their life, including people who are older, disabled, in worse health, poorer, in less stable housing and less well educated.
New ‘Concept Analytics Lab’ investigates link between linguistics and human thinking

Sussex researchers from the Schools of Media, Arts and Humanities and Engineering and Informatics have launched the Concept Analytics Lab (CAL), which aims to understand human thinking by analysing conceptual layering in texts.

The CAL team, led by Dr Justyna Robinson, comprises linguists, Artificial Intelligence engineers, and historians, and is aligned with the university’s Sussex Humanities Lab (SHL) within the Critical Digital Humanities and Archives research cluster.

The team recently collaborated with African New Energies (ANE), whose core business is energy consumption and provision, to find new ways to make use of consumers’ energy use data and recycling habits in the UK.

The research revealed a deep-seated commitment to recycling within the UK population, coupled with doubt and cynicism over the effectiveness of the current system, including a perceived lack of transparency and standardisation in recycling processes and systems.

The findings have significantly impacted how ANE approach their operations when gaining energy from organic waste content, and have led ANE to start gamifying waste classification processes, which aims to switch the current sanction-based system to a rewards-based system.

Quality of University of Sussex research identified as ‘world-leading’

A major review has identified the “world-leading” quality of research at the University of Sussex, which tackles the grand challenges of our time. The national independent Research Excellence Framework (REF) 2021, which ranked the University of Sussex 27th of all UK institutions for both ‘Research Power’ and ‘Market Share’ – up from 34th in 2014, based on its analysis of the REF 2021 results.

Overall, the University was placed 30th of all multi-disciplinary institutions in the UK by grade point average (GPA), and over half of Sussex’s submissions are in the top 20 of their REF 2021 Subject Areas by GPA. The University tied first in the UK for the impact of both its Education and Sociology research.

Researchers from the University of Sussex and Universal Quantum Humanities Lab (UQH) within the Critical Digital Humanities and Archives Lab have launched an interdisciplinary team, led by Dr Justyna Robinson, to investigate link between linguistics and human thinking.

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The findings have significantly impacted how ANE approach their operations when gaining energy from organic waste content, and have led ANE to start gamifying waste classification processes, which aims to switch the current sanction-based system to a rewards-based system.
Silent earth
Founder of the Bumblebee Conservation Trust and Professor of Biology at Sussex
Dave Goulson is on a mission to avert the insect apocalypse. Here he explains why, and how.

WORDS BY DAVE GOULSON

I have been obsessed with insects my whole life. They are amazing and often beautiful, with fascinating, peculiar lives. I grew up in rural Shropshire and spent my childhood roaming the lanes and meadows in search of caterpillars, butterflies, grasshoppers and beetles. Eventually I came to realise that the world would not function without these tiny creatures; they pollinate, control pests, recycle all sorts of organic material from dung to corpses and free trunks to leaves and they keep the soil healthy. They also disperse seeds and provide food for many larger creatures, such as birds, bats, lizards, amphibians and fish.

It should, therefore, be of deep concern to us all that insects appear to be in massive decline. In Germany, flying insects have dropped by 76% in the past 26 years. In the UK, our more common butterfly populations have fallen by 46% since 1976, the rarer ones by 77%, despite great efforts by conservation organisations, such as Butterfly Conservation. Thirteen UK bee species have become extinct, and more look set to follow.

The causes of insect declines are many: habitat loss to intensive farming; the ever-growing blizzard of pesticides used by farmers and gardeners; climate change; light pollution; impacts of invasive species, and more. Our tidy, pesticide-infused world is largely hostile to the delicate balance of insect life.

It’s easy to feel helpless in the face of global environmental issues, but we can all get involved in halting and reversing insect declines. Most insects have not yet gone extinct, and they could recover quickly if we just give them some space to live and feed in peace.

If you are lucky enough to have a garden, take some simple steps to invite insects and other wildlife in (see Simple actions, big gains opposite). Biologist and wildlife gardener Jennifer Owen spent 35 years obsessively cataloguing every plant and animal that she could find in her compact garden in urban Leicester, eventually recording no less than 2,673 different species, the majority of which were different types of insects.

Britain has about 22 million private gardens; 2,673 different species, the majority of which were different types of insects. Around 75% of the crops we grow rely on pollinators. It’s an effective way to reduce your own impact and support more sustainable farming practices. Better still, grow what food you can in your garden or an allotment.

Around 75% of the crops we grow rely on pollinators. It is my view that the move towards ever-more intensive farming is unsustainable. It causes terrible damage to our wildlife and soils, pollutes streams and rivers with fertilisers and pesticides, and significantly contributes to greenhouse gas emissions. Buying and eating local, seasonal, organic produce and reducing meat consumption is an effective way to reduce your own impact and support more sustainable farming practices.

And then there’s farmland, which covers 70% of the UK. It is my view that the move towards ever-more intensive farming is unsustainable. It causes terrible damage to our wildlife and soils, pollutes streams and rivers with fertilisers and pesticides, and significantly contributes to greenhouse gas emissions. Buying and eating local, seasonal, organic produce and reducing meat consumption is an effective way to reduce your own impact and support more sustainable farming practices. Better still, grow what food you can in your garden or an allotment.

Love them or loathe them, we need insects. Around 75% of the crops we grow rely on pollinators.

To find out more, read Dave’s book Silent Earth: Averting the Insect Apocalypse, published by Jonathan Cape, and visit his YouTube site.
In autumn 2017, Joanna Callaghan, Professor of Filmmaking in the School of Media, Arts and Humanities, was diagnosed with breast cancer. This devastating news marked the beginning of an intensely personal journey through treatment, remission, and a recurrence in 2020 which prompted her painful decision to undergo a double mastectomy.

One of Joanna’s four sisters, Cathy, had a second breast cancer diagnosis, and it emerged that both Joanna and Cathy have the rare PALB2 gene, one of three genetic variants including BRCA1 and BRCA2, which carry an increased risk of developing certain cancers. Women with the PALB2 gene have a 40-60% increased risk of developing breast cancer. Following her diagnosis, Joanna was inspired to document and explore her experiences of treatment and recovery, and to challenge taboos surrounding breast health.

‘My Breasts, My Story’ is a transdisciplinary, practice-based research project supported by Arts Council England, Macmillan and the University of Sussex. In it, Joanna explores the breast from creative, scientific and historical perspectives through workshops, interviews, performance, film and installation.

“The breast is a site of many emotions, of complex and sometimes uncomfortable issues,” says Joanna. “It is rich for exploring from multiple angles. Nevertheless, many narratives about the breast have been ‘written’ by the users of breasts, for instance as a sexual object, commercial object, feeding object or diseased object. There is a lack of understanding of lived experience of breasts and a lack of visible stories about the breadth of breast experiences.”

In September 2022, Joanna was invited to undertake an artist residency at the University of Sussex’s Attenborough Centre for the Creative Arts (ACCA). Through collaborations with performers, patients and clinicians, her residency focused on play, both as a tool for recovery and a conduit for engagement with younger audiences. The centrepiece of the residency was the Big Breast – a nine-metre-wide inflatable ‘breast’ modelled from Joanna’s own and assembled as an interactive installation. This extraordinary work allowed audiences to explore the breast externally and internally with clusters of suspended balls and tubes acting as tactile representations of internal breast anatomy – from fat cells to glands and nerves.

The playful absurdity of the Big Breast belies its more serious message. It’s a personal farewell from Joanna to her own breasts and a visceral immersion within the arena in which cancer is encountered and confronted. The ‘cancer’ here is represented by a cluster of black balloons nestled within the yellow, pinks and reds of inflatable mammary architecture.

In 2023, Joanna hopes to secure funding that will enable her to complete work on her documentary film Goodbye Breasts!, which charts her experiences from diagnosis through treatment and recovery.

The whole experience was so important for our young female dancers, who said that no-one had spoken to them about mastectomies before, or about the anatomy inside a breast or how that worked.
The film is characteristically surreal, infused with symbolism, home movie footage and interview material, and starts the construction of the Big Breast and performative journey to recovery delivered as part of BSMS’s residency.

An important collaboration in Joanna’s residency and film, and one which underscores her engagement with younger audiences, was with the Brighton-based dance company Project Female. Founded in 2018, the company encourages young women to express themselves through dance in an environment free of judgment. Working with Joanna, the young dancers performed routines in front of the Big Breast and incorporated movements inspired by post-mastectomy exercises for the arms and torso.

“Working with Joanna was a really great experience,” says Project Female’s creative producer, Pip Sayers. “The joy that Joanna brought to the process created an environment that removed any awkwardness and allowed discussions about breasts to naturally take place with women and men across generations.

“The whole experience was so important for us to share with our young female dancers,” she adds. “They said that no-one had really spoken to them about mastectomies before, or about the anatomy inside a breast or how spoken to them about mastectomies before, she adds. “They said that no-one had really discussed about breasts to naturally take experience,” says Project Female’s creative producer, Pip Sayers. “The joy that Joanna brought to the process created an environment that removed any awkwardness and allowed discussions about breasts to naturally take place with women and men across generations.

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Joanna’s 15-year-old son Dante and husband Joachim have been crucial to the delivery of the project, which, Joanna says, was important in helping them to deal with the trauma of diagnosis and treatment in a way that reflected their identity as a family. “We are a creative family; my son has been in many films and my husband is a cinematographer and sculptor. We designed the Big Breast together, and the whole project was a way to heal through creativity.”

Colleagues in BSMS are keen to develop the ‘My Breasts, My Story’ partnership, potentially through the development of conversation guides for clinicians, medical students and breast cancer patients to build empathetic dialogue and mutual understanding of what recovery means for each patient. There are also plans to tour the Big Breast, using immersive play to create dialogues within communities where participation in breast cancer screening is low, and to raise awareness of cancer gene variants.

The power of joyful, playful absurdity runs throughout Joanna’s practice - breaking taboos, provoking new conversations and offering fresh perspectives on recovery. As Joanna observes, “I think laughter is very powerful, perhaps more so than tears – because it is active, pleasurable and life-affirming. It encourages openness and is a way for people to connect.”

Joanna’s research includes interviews and workshops with women affected by breast cancer and mastectomies via Queen Victoria and Royal Sussex Hospitals, through support groups such as the Brighton BRCA group and Restore, a charity supporting reconstructive surgery. These powerfully stark testimonies are featured in Goodbye Breast addressing the loneliness of the breast cancer journey – particularly within clinical settings. Breast cancer surgical oncologist and Dean of Brighton and Sussex Medical School (BSMS), Professor Malcolm Reed, notes that “post traumatic growth following diagnosis and treatment is a phenomenon which is not well understood, and which is dependent on both the quality of the physical and emotional support. Joanna’s project could have real therapeutic benefit for those patients who would be encouraged and inspired by Joanna’s story and achievement.”

ABOVE: Visitors queue to go inside the Big Breast. BELOW: Joanna and visitors inside the Big Breast.

Food provides energy to fuel your immune system by breaking down nutrients into molecules, and provides a source of antioxidants for the immune system, as well as our signalling proteins. This results in an inappropriate immune response to a part of our body.

The science of staying well

Are we stuck with the immune systems that we’re born with or are there nutritional and lifestyle choices that we can make to optimise and maintain a healthy balanced system?

Immunologist Dr Jenna Macciochi looks at the science of staying well.

It’s a simple fact that our immune system is shaped by things that we can control, such as diet and lifestyle, and things we cannot, such as genetics, early environment, status and previous infections. It’s important to keep that in mind when thinking about optimising immune function. However, there are many actions we can take that will help to maintain good health and wellbeing.

Sticking to a healthy balanced dietary pattern, such as the Mediterranean diet (whole grains, fruits, vegetables, seafood, beans and nuts), rather than hyper-focusing on specific superfoods is a good place to start. As is getting regular movement into your day, including breaking up sedentary periods at the desk and maintaining muscle mass through several resistance based workouts per week. Keeping a consistent sleep pattern, spending time in nature, managing unwarranted stress and focusing on your gut health are also beneficial and relatively easy to achieve.

Dist can impact immune function in several ways, being deficient in any of the essential nutrients can lead to an immune deficiency. Food provides energy to fuel your immune system, which is a very energetically costly system, especially when running a fever for example. Food is also a form of building blocks for the immune system, as well as our signalling molecules, and provides a source of antioxidants and anti-inflammatory molecules.

Can our immune systems be trained or re-educated? It depends. The immune system can be trained and educated by a vaccine, whereby it develops a memory to a specific pathogen which protects in the future. The same principle applies to exposure to some germs. For example, contracting chicken pox often (but not always) results in a lifelong immune memory that prevents us from becoming infected again. However, such a robust memory response doesn’t protect us for all infections, including the highly contagious norovirus.

And then there’s the key role played by genetics. It’s hard to disentangle the exact contribution because genetic expression is also shaped by diet, environmental and lifestyle factors. And the contribution of a specific gene varies from one germ to another. Some genetic variants will almost certainly lead to a specific immune trait but, in most cases, it’s a mix of many genes that result in a particular trait.

Autoimmune diseases, for example, are caused by a complex mix of genetics (usually multiple different genes combined with various environmental factors) that results in a breakdown of immune tolerance in tolerance to our own proteins. This results in an inappropriate immune response to a part of our body.

Often this can start years before symptoms appear and we now know that there is a key role for the gut microbiome in educating and training our immune system to prevent autoimmune disease.

There is no single method to develop a strong or weak immune system, but some studies show that certain medications can impact immune function. Vaccines help us develop an immune memory to a specific germ, the goal of this is to lifelong immunity but the duration of the memory will vary from germ to germ and vaccine to vaccine.

So, when it comes to staying well, the adage ‘you are what you eat’ really is the best way forward.

Dr Jenna Macciochi is Senior Lecturer in Immunology in the School of Life Sciences; a fitness instructor; and author of two books, Immunity: The Science of Staying Well, Harper Collins 2020, and Your Blueprint for strong immunity; Yellow Kite 2022.
A new future

In the summer of 2021, Naimat Zafary and his family fled war in their home country of Afghanistan. Naimat arrived at Sussex as a Chevening scholar and a refugee. Having completed his Masters, Naimat is currently undertaking a PhD in International Development within the School of Global Studies. Violetta Korbina was already a final-year Physics undergraduate at Sussex when Russia invaded her homeland of Ukraine in February 2022. Violetta is now working towards an MSc in Astronomy in the summer of 2021, Naimat Zafary and his family fled war in their home country of Afghanistan. Naimat arrived at Sussex as a Chevening scholar and a refugee. Having completed his Masters, Naimat is currently undertaking a PhD in International Development within the School of Global Studies. Violetta Korbina was already a final-year Physics undergraduate at Sussex when Russia invaded her homeland of Ukraine in February 2022. Violetta is now working towards an MSc in Astronomy in

INTERVIEW BY MOLLY WHYTE

How are you finding this academic year at Sussex?

VIOLETTA KORBINA: I’m still struggling a lot mentally, but this year is a little easier than the last, as I am able to focus more on my study and research, I am learning to cope despite how hard it can be.

NAIMAT ZAFARY: It’s better than last year, which was a hectic, awful situation trying to deal with the news coming out of Afghanistan, the banning of school for girls and the difficulties for my siblings and friends, all while setting up my scholarship and moving so suddenly. This year is more peaceful and I am able to focus on my research.

What are your plans for your time at Sussex?

How might your studies help your country one day?

NAIMAT: I believe my country will remain dependent on international aid until it becomes economically stable, so my plan is to find a best approach for using aid in Afghanistan to benefit its people and eradicate poverty.

VIOLETTA: I aim to get my Masters, however, my academic life is less tied to what I do for Ukraine. That said, I will be taking a Machine Learning module, and considering Ukraine is becoming more of a tech hub, I will be able to bring more money in to help to rebuild the war-torn country.

Have your hopes for the future changed in the past year?

NAIMAT: Originally I thought I would leave Ukraine, obtain a degree in the UK and stay in the EU to pursue an academic career. Now I am considering how I can use my studies to help my home, either working remotely in academia from Ukraine, or applying my Machine Learning skills to get an IT job. I hope I will be able to go home to see my family. I haven’t returned to Ukraine for a year.

VIOLETTA: When applying for my scholarship, I was asked “What will you do when you return to your home country?” My response is no longer an option. I can’t go home for now, and the ministry that I planned to work at isn’t there anymore. So, now I am focusing on my PhD and trying to be hopeful.

What has been your biggest learning from the past year?

NAIMAT: In relation to my studies on governance, I’ve learnt the importance of hearing people’s voices and letting them participate in decision making.

VIOLETTA: For me, it’s finding that people get used to war in strange ways. In Ukraine, the absence of air raid sirens is now causing anxiety. On a personal level, even though I haven’t lived through the shelling, I struggle with loud noises like fireworks and planes.

How do you feel about your homeland?

NAIMAT: I miss my home badly and feel the future is unclear. I left my sister behind, who is in her final year of medical school, and now they won’t issue her certification. You work for decades as part of the system and suddenly it’s taken away.

VIOLETTA: I feel sad and miss home, but I feel angry and want justice too. It’s partly anger at the way Ukraine has been treated for the past 400 years. I don’t think conversations around decolonisation focus enough on the impact of the russian empire [sic].

Is there anything you would like to say to Sussex alumni and supporters?

NAIMAT: I’d like to thank them for the incredible support they have shown for Afghan students. I think the world must know how important education is for us. People often hide their failures, but I will happily say that I applied for the Chevening scholarship for six years before being accepted. Education is a way for me to get rid of the darkness in my life, in my country.

VIOLETTA: I want to say thank you. Considering our University’s radical and activist reputation, I also think it’s important that alumni and students continue to take that forward, such as volunteering, not using products made or sold in russia [sic] and donating money through United24. I hope by giving my personal perspective it might help people to better understand, and to remind people that the war isn’t over. I’m also trying to launch a programme called Books for Ukraine, asking UK universities to donate books to Ukrainian universities. We’ve already shipped the first batch from Sussex.

As a University of Sanctuary, Sussex strives to provide access to an academic future for all students and a warm welcome to those who seek sanctuary. Through the contributions of our alumni and friends, we can provide hardship funding and welfare support when our students need it most.
All the world’s a stage

Sussex graduations have become well known for their sense of fun and celebration. Over the years there has been much cheering, singing, dancing and even the occasional marriage proposal! We have celebrated siblings graduating together, parents and children collecting their certificates at the same ceremony, and families reposing in their second or even third generation of Sussex graduates.

At the 2023 winter graduation, we celebrated with graduates from over 134 countries. Among them were a husband and wife who were forced to flee Syria 10 years ago, Mayas Alcharani (Development Studies 2021) and Rama Almare (Gender and Development 2021) collected their Masters degrees on the same day.

“I was really proud that I’ve reached this achievement with my wife,” says Mayas. “Since the day we got engaged, we have built everything together and even now, with our personal achievements, we are doing it together.”

Summer 2022 saw the biggest University of Sussex graduation on record, with 42 ceremonies taking place across three weeks in July at the Brighton Centre.

As you go on to create change in the world, remember that you are forever Sussex.

WORDS BY HARRIET DE BENE

A TIME TO CELEBRATE

At every university, graduation ceremonies are high points of the academic year. Roughly translated as ‘taking a step’, graduation symbolises the move of the former student (now called graduand) into wider society as a graduate.

We welcomed back Sussex students from 2020 and 2021 who were unable to graduate due to Covid-19 restrictions, as well as the 2022 graduate cohort. Among those who returned to Brighton to cross the stage was Sharyn Trevizan (Urban and Regional Studies 1976), who had been unable to formally graduate with her classmates, following a move to California.

“I have often been asked how I’ve been able to travel the world (130 countries), run my own business and live abroad,” says Sharyn. “The answer I give is that the University of Sussex taught me to challenge the status quo.”

Graduation is not only a chance to celebrate with friends and family and reflect on achievements, but also the start of the next chapter of the Sussex journey as a member of our Sussex community. As Sanjeev Bhaskar OBE, Chancellor of the University, says, “You are always part of the Sussex community who are kind of like an extended family. As you go on to create change in the world, remember that you are forever Sussex.”

Hearing had to wait until I was 40 to study and achieve a degree, my graduation day was one of the best moments of my life. I got a 1:1, and this was due in no small part to the wonderful tutors I had at Sussex in the Education department. I’m now a Headteacher and this was due in no small part to the wonderful tutors I had at Sussex in the Education department.

Our Chancellor Sir Richard Attenborough was an indescribable honour. I spent three wonderful years in Brighton, attending the University of Sussex’s LLB programme. Receiving my degree from the late Lord Attenborough was there just weeks after losing three members of his family in the Boxing Day Tsunami. The fact that he came and celebrated our successes at that time of personal tragedy for him made me realise what a family we are at Sussex.

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Our Chancellor, Sanjeev Bhaskar, is the most playful and fun Chancellor I know; he made my graduation fun and everyone who saw my graduation pictures wished he was their Chancellor too – I think he has a very young heart.

I spent three wonderful years in Brighton, attending the University of Sussex’s LLB programme. Looking at the photo of me outside the Brighton Centre almost 23 years ago brings back so many great memories of East Slope, Falmer House, Grapevine Bar, the Library, Brighton’s shores and wonderful people, all bringing a smile to my face.

OKAN DEMIRKAN (LAW 1997)

As you go on to create change in the world, remember that you are forever Sussex.

I was lucky enough to graduate three times from Sussex and I think the most poignant was winter 2005, my last graduation at Sussex, for it was the last but because Lord Attenborough was there just weeks after losing three members of his family in the Boxing Day Tsunami. The fact that he came and celebrated our successes at that time of personal tragedy for him made me realise what a family we are at Sussex.

See more graduation memories, and share your own at www.sussex.ac.uk/falmer
60 years of Sussex

Our 60th anniversary celebrations brought back great memories for our alumni and gave them plenty to think about for the future.

WORDS BY JACQUI BEALING

Sussex's 60th anniversary year in 2021-22 had something wonderful for everyone. We celebrated our past, our present and our future. And we looked inside our community and outwards globally as we acknowledged everything that's great about our university.

The major event of the year was, in fact, the finale – our Alumni Anniversary Weekend – when more than 400 former students were welcomed back to campus for three days of festivities at the start of September 2023.

They heard Vice-Chancellor Professor Sasha Roseneil praise the University for being "authentic, courageous… sometimes outrageous," during its six decades of history. Her words, spoken during her first speech as Sussex's vc in a grand marquee outside Attenborough Centre for the Creative Arts, were echoed by those who had come to relive their student days and to compare notes with later generations.

They spoke nostalgically about the "buzz" of Sussex, of being at Sussex in the 1970s "when it was still pretty radical", of feeling as though they were "the golden generation", and of having "a bang up helluva good time!"

Many of them stayed in our comfortable new East Slope residences, which are a far cry from the former warren of flats that used to hug the hillside (even though they're still fondly remembered).

Plenty of activities were laid on for their enjoyment, including a series of TED-style talks by current academics on subjects such as how bees decide which flowers to visit and how our smart fridge might become an 'informer', tours of campus buildings old and new, a night of partying to a live band in Mandela Hall and an interfaith service in our stunning Meeting House.

They were also treated to a virtual and actual heritage trail with our Sussex in 60 objects web pages and temporary exhibition.

The fun project involved a selection of objects that exemplified the University's history and culture as suggested by current and former staff and students. They included a photo of 'blue milk' (by a former student after she found staff and students). They included a photo of 'blue milk' (by a former student after she found blue food dye a useful deterrent against milk stealers in Park Village); various ceremonial artefacts – such as the mace and the Chancellor's chair – and some of the outlandish artwork on campus, including John Upton's 1967 painting China's Exit into Brighton.

The anniversary year kicked off with a future focus. At our Better World event in October 2021, some of our brilliant researchers and alumni told a packed auditorium at ACCA how their work was influencing positive change, from tackling the climate crisis to creating sustainable plastic alternatives from fish waste.

We also held two "Ask the Experts" live webinars and podcasts featuring panels of our academic authorities and external speakers on consciousness and kindness, which were chaired by Sussex alumnus and BBC broadcaster, Claudia Hammond (Psychology 1990).

We took more of our research heroes out of their science labs and into the House of Commons for the Sussex Parliamentary Reception. Attendees included the Nobel Laureate and former member of staff, Sir Paul Nurse, who spontaneously enthused, "I love Sussex!"

Another of our Nobel Laureates, the late Professor Sir Harry Kroto, was especially honoured during our anniversary year. A blue plaque was erected on campus by the Chemistry Society in recognition of Professor Kroto’s involvement in discovering a form of carbon (the C60 molecule – or Buckminsterfullerene) that has led to a wide range of innovations in industry, from healthcare to construction.

We also celebrated off campus with our international alumni. Events, such as a walking tour in Rome led by Emerita Professor of Art History, Maurice Howard, with a reception at the Cappella Orsini, and an alumni reception in Paris at the Cersto de l'Unio Interalliée hosted by Dr Robert Gillespie of Blackhall OBE (Mechanical Engineering 1967), gave our European graduates an opportunity to reconnect.

Meanwhile, online and in-person reunions in Nigeria, Ghana, USA and China were kindly organised by our alumni volunteers and partners.

Our Sussex community has been reminded this year that, in addition to providing a high-quality education and student experience, our ambition is to become one of the world’s most sustainable universities. We are already on that path. Our Sustainable Sussex strategy was launched in 2021. It incorporates our Big Biodiversity Conversation, in which we have invited our community to suggest and initiate planet-saving projects.

What’s more, our strategy is working. In 2022, we were named third in the UK for sustainable institutions (QS Sustainability Rankings) and 55th in the world.

As we look to Sussex’s future, we can be proud of where we have come from and where we are going.

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To read more about Sussex in 60 objects and watch video recordings of the TEDx-style talks, visit: www.sussex.ac.uk/falmer
The politics of energy

As millions of citizens struggle with rising energy bills, and large oil companies post record-breaking profits, Dr Marie Claire Brisbois discusses the current landscape and looks at what is changing in the energy sector.

Our work at SEG has demonstrated that, especially in the EU where there is supportive legislation, more and more people are becoming active ‘energy citizens’ and collectively eating away at the political and economic power of big fossil fuel giants. Models of joint ownership, such as that used by Regen, allow citizens to co-create large projects like wind and solar farms.

The end of cold, expensive winter days is in sight. Large projects like wind and solar farms, as that used by Ripple, allow citizens to co-own these kinds of seemingly obvious solutions have therefore been resisted. SEG research is clear that these transitions are inherently disruptive for existing companies, but also that they are necessary to redistribute wealth and opportunity, improve quality of life and avert climate catastrophe.

Despite the distress caused by the current crisis, this is a time of tremendous possibility. Renewables are now the cheapest form of energy to produce, giving us the means to address issues of both cost and climate. Technology has also made it possible to transform the model of top-down, corporate-controlled energy provision that has landed us in an expensive energy crisis. Citizen, council and community-owned generation can reduce dependence on expensive energy, and households batteries and electric vehicles make it possible for citizens to actively contribute to the energy system.

Dr Marie Claire Brisbois is Co-Director of the Sussex Energy Group and Senior Lecturer in Energy Policy at the University of Sussex.

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A passion for education

In the 1960s, only 4% of school leavers went to university, but Sussex actively encouraged non-traditional groups of students to apply, welcoming exiles, mature and working-class students. Now, the largest single donation towards supporting undergraduate students at Sussex will benefit students who have been in care through a generous new scholarships programme.

Launched in September 2022, nine students from across all disciplines have been awarded £5,000 each year for the duration of their degree. The annual scholarship is named after alumnus Andrew Rudd (Mathematics 1968), a long-term supporter of the University and a former chair and president of the Friends of the University of Sussex, a charity based in the United States.

“Education has always been important to Andrew and our family as a way to expand opportunities and choices in life,” says Amy Rudd, co-founder of the philanthropic Rudd Family Foundation. “Andrew began his university career as an undergraduate at Sussex and, with his degree and preparation from there, he went on to earn two Masters and a PhD from the University of California in Berkeley CA, which opened a career in academia as a Professor at Cornell University and then in the business world.

“Andrew now suffers from Alzheimer’s, but we know he would feel privileged that this scholarship will be made available to help support students who have challenges in their lives, on their educational journeys,” she adds. “In this way, his belief and passion for education can be passed on to students who are just beginning their university careers.”

Speaking about the significance of this new scholarship programme, Professor Sasha Roseneil, Vice-Chancellor, commented: “Young people who have experienced the care system are hugely under-represented in higher education, and when they do make it to university, often struggle due to the lack of family support that other students take for granted. We want to encourage care-experienced applicants to come to Sussex, and then to enable them to make the most of their time as students, succeeding academically and graduating with the skills and knowledge to thrive in their lives after university.

“We are extremely grateful to the Rudd Family Foundation for supporting our ambitions for this group of students through the Andrew Rudd Scholarship Programme. It will make an enormous difference to our students, providing them with options and opportunities that would otherwise be out of reach.

“Our intention is to build on our long-standing tradition of widening participation in higher education, so that more young people who have experienced care can realise their potential through a Sussex education. The Rudd family’s immense generosity is making this possible.”

At Sussex, we believe passionately that background should not be a barrier to university and the pursuit of a rewarding and successful future. Research shows that young people who have lived in the care system have significantly poorer educational and life outcomes than the general population on average.

The number of young people in care in the UK has risen significantly in the last decade, with this figure likely to reach 100,000 in the next few years. In a recent survey, the Office for Students estimated that only 13% of pupils who have been in care for 12 months or more enter higher education, compared to a national average of 43% across all student groups.

The generous £600,000 donation from the Rudd Family Foundation is intended to support care-experienced students’ living costs whilst at Sussex, to enable them to make the most of their student experience and fulfil their potential.

Andrew and our family as a way to expand opportunities and choices in life,” says Amy Rudd, co-founder of the philanthropic Rudd Family Foundation. “Andrew began his university career as an undergraduate at Sussex and, with his degree and preparation from there, he went on to earn two Masters and a PhD from the University of California in Berkeley CA, which opened a career in academia as a Professor at Cornell University and then in the business world.

EDUCATION HAS ALWAYS BEEN IMPORTANT TO ANDREW AND OUR FAMILY AS A WAY TO EXPAND OPPORTUNITIES AND CHOICES IN LIFE,” SAWS AMY RUDD, CO-FOUNDER OF THE PHILANTHROPIC RUDD FAMILY FOUNDATION.
Sussex has, throughout its history, been animated by an exceptional and distinctive spirit of intellectual freedom and challenge and, simultaneously, by a profound commitment to advancing equality and social justice.