

Hello from your alumni team

2023 seems to be flying by with many activities already having taken place and more still to come. There have been many highlights throughout the year and I'd like to share just a few.

- Welcoming all of the new Winter 2022 and Summer 2023 graduates to our alumni community. We look forward to seeing you all at our upcoming activities.
- Recognising some of the amazing ways in which you have carried Nottingham's values into the world through the presentation of the first round of our all new Your Nottingham Alumni Awards during the Summer 2023 graduation ceremonies. Meet our winners and find out how to nominate for next year's awards on page 7.
- Seeing so many of you attend and benefit from the expertise of our fantastic alumni webinar speakers, covering topics such as 'Grow your strategy with kindness', 'How to elevate your productivity' and 'How to banish burnout' (read more about this on page 13). If you haven't already joined any of our webinars, do check out the recordings in our 'Learn' library on the brand new alumni website.
- Our international team, along with our International Alumni Ambassadors, have also been busy with over 30 alumni events taking place globally.

We've loved hearing from all of you within the alumni community, from 100th birthday celebrations, reunion visits to campus, remembering those who have sadly passed away, providing valuable feedback on alumni activities and communications, participating in our online polls or simply saying 'hello'.

Georgina Docherty
Head of Alumni Engagement



Connect your way

Alongside our printed edition, you can view a PDF version of this magazine online. Visit: bit.ly/connectmagazine2023. You can also request this magazine in alternative formats. Email: alumni-enquiries@nottingham.ac.uk

Tell us what you think

We'd love to know what you think about this magazine. Share your feedback: bit.ly/connectmagazinefeedback

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Get involved with our work

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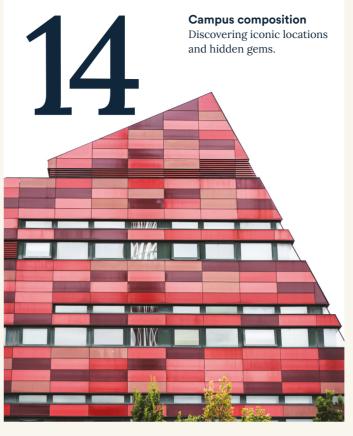
Commitment to sustainability

We're committed to ensuring our magazine is produced as sustainably as possible.



Sphere statement

The Sphere Programme is a key element of the university's Equality, Diversity and Inclusion Strategic Delivery Plan, highlighting EDI activity across the university. The Campaign and Alumni Relations Office's Sphere Statement is: "Celebrate the diversity of our alumni population."





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Connected we thrive

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Seeing beyond: the remarkable evolution of MRI

Pioneering new advancements in MRI technology.



A MESSAGE FROM OUR VICE-CHANCELLOR

Welcome to this edition of Connect magazine, whether you have been reading our alumni stories for many years, or this is your very first copy.



I am pleased with the progress currently being made at our Castle Meadow Campus. This development will benefit the whole university, with staff and students playing their part in shaping the new campus, and we recently welcomed members of the community at an inaugural open day.

We have ambitious plans for Castle Meadow Campus, including as a new home for Nottingham University Business School (NUBS), enabling it to grow and increase collaboration with strategic partners.

We are also marking 25 years of NUBS this year, and I am proud of the positive impact that the school has had in developing the next generation of business leaders.

I know that many of you will have been shocked and saddened by the recent devastating loss of two of our first-year students, Barney and Grace, who had their bright futures brutally curtailed by a seemingly random act of violence.

We received thousands of messages of support and condolence from those locally, nationally and globally in response to this dreadful crime, and we are grateful for the incredible support from our alumni community throughout the world.

Please do take some time to reflect on the statements shared by the families of Grace and Barney, who asked crowds at the university and city centre vigils to 'hold no hate in your heart' and 'look out for each other'.

Professor Shearer West
President and Vice-Chancellor

REMEMBERING GRACE O'MALLEY-KUMAR AND BARNEY WEBBER

In June, we mourned the tragic deaths of students Grace and Barney. A vigil was held on campus, attended by the parents, families and close friends of Grace and Barney, along with thousands more from across our university community who gathered to remember them.

Grace was a medical student, thriving in her first year of study and inspired to a career in medicine by work placements in a GP surgery and her volunteering for the nationwide vaccination programme during the Covid-19 pandemic. She was a talented sportswoman, playing international hockey for both the U16 and U18 England Hockey Team and Essex U15 Women's Cricket. She was held in the highest regard by her tutors and teammates alike.

Barney was a first-year history student, with a particular personal interest in the geopolitics of both the USA and China. His tutors recall his energy as a student and as fun, friendly and full of life in his seminars. He too was a sporting talent, playing hockey, rugby and cricket for his school and local clubs and excelling at sports at Nottingham.

The books of condolence, which feature many messages of support from alumni, have been passed to the families. Plans for a memorial are also being developed in partnership with the families.



Photography: University of Nottingham Internal Communications team



NEW CITY CENTRE CAMPUS

Work is now well underway at our new city centre location, Castle Meadow Campus. Located close to the train station, when complete, it will provide a hub for collaboration across the whole community – from local schools and businesses to academics and alumni. Officially opening in 2025, Nottingham University Business School (NUBS) will have a permanent presence, offering exciting new opportunities for teaching, research and strategic partnerships with industry (read more about NUBS on page 8).

TOP 100 UNIVERSITY WORLDWIDE

The university is once again ranked as one of the top 100 universities in the world in the QS World University Rankings 2024. We are ranked 17th among UK institutions. This year's QS World University Rankings is the largest ever and takes account of research impact and global employer contributions, alongside the expert opinions of academic faculty.

TOP FOR GRADUATE RECRUITMENT

Nottingham has retained its position as the second-most sought after university for graduate recruitment among top UK employers. The 2023 graduate recruitment report from market research company High Fliers, looks at the latest graduate vacancies and starting salaries at the UK's 100 best-known and most successful employers, including Aldi, Google and PwC among others.

SUCCESS FOR GREEN AND GOLD PLACING SECOND AT BUCS



It's been a tremendous year of sport at Nottingham, with the university finishing second to long-time rivals Loughborough in the British Universities and Colleges Sports League (BUCS). Our Men's and Women's Table Tennis, Men's and Women's Hockey, Women's Football and Women's Lacrosse were all champions at BUCS Big Wednesday too.

Our sports teams and staff also walked away with no less than five awards at the 2023 BUCS Awards Dinner. This included Team of the Year for our Women's Table Tennis 1st team, who are unbeaten in all categories, and Sportsperson of the Year, which went to Gina Kennedy, a world Top 8 squash player and MSc Health Psychology graduate.

Keep up to date with the latest news from the Department of Sport: nottingham.ac.uk/sport

University of Nottingham Connect Magazine

Our Your Nottingham Alumni Awards celebrate you - our alumni community - and share the stories of how you carry Nottingham's values into the world and the amazing contributions you make in so many different ways. Meet some of our 2023 winners and discover what receiving an award means to one of this year's recipients. Jonelle Awomovi.



(Religion, Philosophy and Ethics, 2020)

"I have so much respect for the University of Nottingham - the time I spent studying, living and learning there has helped mould me into a well-rounded person. Being recognised for this award is a tremendous honour. It's given me a chance to show gratitude to those who have given me a chance over the years during my education, career and personal endeavours.

"I was very excited to return to campus. There's something so special about University Park - perhaps it's the strong sense of togetherness and community. Many of my closest friends, ones I would consider family, I met for the first time on this campus.

"It was at the University of Nottingham where I decided to become a storyteller and focus on journalism as a profession. I work as a news journalist at BBC News, and produce social video reports for some of the biggest news stories of our time.

"Recognition is motivation. It inspires me to work harder and carry on and perhaps lets me know that I'm on the right track. From a young age, I've always wanted to help make positive change. I've been lucky to have been given a world-class education and access to information and tools - so it's my and our duty to help make the world a more equal place.

"I hope to work on more impactful solutionbased journalism that helps create positive change in the world. I want to continue to be a force that helps change the nature of storytelling, so that everyone can feel like it's easy and simple to learn about our beautiful world."

Jonelle is a journalist at BBC News, presenting impactful social media news content.

2023 WINNERS



Shivansh Ahuja

(Management, 2019)

Shivansh is the founder of City One Initiative. an Indian educational organisation focused on enhancing contemporary skills.



Dr Meshach Asare-Werehene

(Cancer Immunology and Biotechnology, 2014)

Meshach is a Clinical Chemistry Fellow at the University of Toronto, an expert in gynaecologic cancer diagnosis and therapeutics at The Ottawa Hospital and a part-time Professor at the University of Ottawa.



Sakshi Bansal

Sakshi is an

(Work and Organisational Psychology, 2019)

occupational psychologist and founder of Project LEAP, a social service project committed to Sustainable Development Goal 4.



Nigel Hyde MBE

(Economics, 1982)

Nigel is the founder of charities Mission Direct and Home Leone, mobilising resources to transform lives.



Dr Richard Munang

(PhD Environmental Change and Policy, 2008)

Richard is the United **Nations Environment** Programme's Deputy Regional Director and Africa Regional Climate Change Coordinator.



Professor Andrew Rowland

(Medicine, 2000) Andrew is the

founder of charity SicKids, and works clinically between the UK and Cambodia.



Frances Ryan

(Politics and International Relations, 2007)

Frances is a political iournalist, author and broadcaster, whose work has featured on the front pages of The New York Times, The Guardian and British Vogue.



Dr Medha **Tadpatrikar**

(Business Management Studies, 1990)

Medha is an entrepreneur, writer, TEDx speaker and #ChiefPlasticWarrior. and is the co-innovator and pioneer of the Thermo Catalytic Depolymerisation Process in India.

Find out more: bit.ly/yournottinghamalumniawards

Nominations for the 2024 Your Nottingham Alumni Awards are now open!

Fill in our online form and complete your entry by 17 January 2024.

Submit your nomination: bit.ly/yournottinghamawards2024

For 25 years Nottingham University Business School (NUBS) has been a global leader in business education. providing a platform for graduates to embark upon successful careers around the world.

The only business school in the UK to hold triple accreditation for its operations on every campus - UK, China and Malaysia - from AMBA, AACSB and EQUIS, the school's commitment to outstanding teaching, research and practice is internationally recognised.

It's an exciting time for the school as it embarks on new plans to develop its activities further, including expanding operations at the new Castle Meadow Campus in Nottingham city centre from 2026. NUBS Deans Professor David Park, Professor Kok Wei Khong and Professor David Goodwin reflect on the business environment and how NUBS is looking to the future.



A changing business environment

Professor Park: "The next five years will be a time of transition and evolution as current trends become the new normal. One of the key trends is flexibility and a willingness to change. It's not just the service you deliver as a business but how you operate as a business. There is an expectation that employees, business owners and legislators will respond quicker while developing an ongoing awareness of key enablers such as digital. The majority of us will need to continue to upskill and top up our understanding, and the source of where we get our skills and experience from is going to become broader."

Professor Khong: "Some of the opportunities are in technological advancement, sustainability, diversity and inclusion, and social responsibility. Where artificial intelligence (AI) is replacing some functions, social responsibility in particular is a new area of emphasis that can help companies incorporate social and environmental considerations.

Professor Goodwin: "We're going to see technological breakthroughs occurring at pace. It's unprecedented. Business is always looking to the latest developments. The crossover between the worlds of science, engineering and business is a particularly exciting opportunity. Does AI mean the traditional role played by business leaders disappears? Probably not. But the growth in business activity is astounding because the world is now integrated due to technology. We're going to have new imbalances created by technological breakthroughs, but as people work around the disruptions and find new solutions, natural patterns will re-emerge."

MEET THE DEANS



Professor David Park

Dean of Nottingham University Business School, UK



Professor Kok Wei Khong

Dean of Nottingham University Business School, China



Professor David Goodwin

Key skills for leaders

Professor Khong: "There are several key skills that current and future leaders need to have to be successful in a rapidly changing business landscape. Some of the most important are leadership, strategic thinking, digital literacy, innovation, emotional intelligence, financial acumen, and communication."

Professor Goodwin: "It's important to simultaneously address both hard skills – such as the ability to navigate the emerging technology landscape - and soft skills - such as communication skills. The growth of hybrid working means being an effective leader may now include managing staff while being physically remote from teams. How do you galvanise innovation and dynamism in the workforce when people are not meeting together as frequently as before? The right answer will completely vary depending on an individual organisational context. But this challenge to our traditional ways of working is going to allow the formation of new patterns of work which may end up being better."

Professor Park: "An effective leader needs to be able to relate to and engage with diverse groups and individuals. The ability to build your own experience and skills, plus building a team around you that can cover some of this, is an important skill. If you are consistently true to who you are and your own values, I think you increase your chance of effectively engaging with others. And that increases the chance that your business, your entity, your enterprise will succeed."

The vision for NUBS (and how you can benefit)

Professor Park: "We have three priority areas as a school: teaching and education; research and knowledge exchange; external engagement. I'm genuinely excited to help create the future of business school education and research and by the potential that our co-location with other (non-academic) organisations at the new Castle Meadow Campus will offer to further enhance the value of what we do."

Professor Goodwin: "I think we have a great opportunity here at Nottingham to create a model of education which is truly distinctive. That's going to be a combination of technology, curriculum content and effective teaching. The way in which our campuses can share insights with each other is an outstanding feature of the tri-campus model. Our opportunity is to provide an immersive education experience so that when our students graduate, they're already well advanced in being prepared for the workplace."

Professor Khong: "Business schools can play a critical role in preparing future business leaders by providing a strong foundation in business principles and practices, as well as knowledge of emerging trends and technologies. NUBS can help alumni stay ahead of the curve and be better prepared to succeed in a changing business landscape."

Professor Goodwin: "Two-way knowledge exchange with alumni can help to inform us in the business school of the changing trends in their workplaces, playing a role in encouraging us to implement change. We should then support alumni to access the latest trends, which could be through short courses or thought leadership events for example. So it's a combination of listening to the thoughts and insights that everyone brings, and then the role the university plays in communicating the latest trends."

Professor Park: "We have a global community and there are absolutely opportunities to engage with our research, our ability to educate, and our external network. I'd like the business school to be increasingly real-world relevant – for example, we've launched a Digital Centre of Excellence to equip students with the skills and qualifications they need for an increasingly digital world. But I'd also like us to be an organisation that is known for our ways of working. That comes down to how we interact with each other, how we teach, the content we produce, the networks we create. If we can do that consistently. we can make a difference to those who engage with us."

Our vision at NUBS is to be a global leader in business education, shaping the future of responsible business and management in an interconnected world. We aspire to deliver an unparalleled learning experience that transforms our students into visionary leaders and change-makers.



Nottingham University Business School

We're celebrating 25 years of **Nottingham University Business** School (NUBS) with the launch of a new global event series: "The second quarter century". NUBS invites you to join us and discuss future challenges and opportunities with leading thinkers from the school and alumni community.

Upcoming events

New Delhi

23 November 2023

Mumbai

25 November 2023

Hona Kona

29 November 2023

Shanghai

2 December 2023

London

5 March 2024

Further ahead

Lagos

March 2024

Kuala Lumpur March 2024

Nottingham June 2024

New York June 2024

Book your place and find out more: bit.ly/uonalumnievents

Teaching and learning

For undergraduate students today, building a more sustainable future has become one of the most pressing issues of our time.

Academics from across our five faculties explain how the university is providing the tools to do so, no matter what is being studied.

SOWING THE SEEDS OF CONTROL OF CO

Medicine and Health Sciences

he faculty encompasses the Schools of Health Sciences, Life Sciences, Medicine and Veterinary Medicine and Science – all of which have sustainability high on the agenda, linking to the UN's Sustainable Development Goals (SDGs) where possible too.

In teaching asthma in year one of the medicine course, the classic example of metered dose inhalers is introduced in relation to the SDG 'climate change'. The carbon footprint of a metered dose inhaler is quoted as the equivalent of driving from

London to Sheffield, whereas the alternative dry powder inhaler has the same carbon footprint as driving four miles within London. When GPs prescribe asthma medication, they are alerted to the environmental impact of inhalers.

In the second year students are invited to estimate their own annual carbon footprint (which is approximately two tons per person less than the UK average) and produce a menu which has a lower carbon footprint than their standard menu.

Working in partnership with students is also crucial and helping to support climate anxiety in our students, given the climate crisis unfolding.

Professor Michael D Randall – Associate Pro-Vice-Chancellor (Education and Student Experience), Faculty of Medicine and Health Sciences and School of Life Sciences



Arts

rom the introductory modules students take to establish the foundations of knowledge in their degree programmes, to the capstone projects in their final year where they apply their research skills, sustainability is discussed and critically assessed to ensure we use the arts and humanities to face this challenge of the next century.

For example, first year students within the Department of Philosophy examine the relationships humans have built with the wider environment within their module, "Philosophy and the Contemporary World".

Similarly, students within English and American and Canadian Studies are provided with survey modules that engage with the literature of the environmental movement from the 19th century to the present day.

We also have specific modules that address areas for students to explore in the second year of their programmes, allowing them to build their disciplinary knowledge of the issues of sustainability and prepare them for the opportunity to conduct their own research within dissertations and research projects in their final year.

These threads of sustainability throughout our degree programmes ensure all Faculty of Arts students can place this issue as a central part of their degree, and can think creatively about how arts disciplines can help to address issues of sustainability.

Professor Ross Wilson - Director of Liberal Arts

Engineering

ngineering is on the frontline of the battle to address the challenges of sustainable development. In the Faculty of Engineering, we are playing our part through cutting-edge research and by equipping future generations of engineering graduates to deliver sustainable engineering solutions.

How do we provide our graduates with the knowledge and skills to make a difference? All our programmes have core modules in which students are introduced to the engineering fundamentals and the key skills needed to be sustainable professionals.

These equip our students to make sustainable decisions on engineering processes, evaluate lifecycle impacts of design choices and select the most sustainable materials.

Engineering design is at the heart of what we do. All departments run design projects that allow our students to develop and demonstrate their knowledge and skills in real world contexts. Students also benefit from working with staff who are active in researching sustainable solutions to global challenges: from transport infrastructure to renewable energy, from advanced manufacturing to delivering clean water.

Dr John S Owen – Associate Professor, Department of Civil Engineering

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Science

rom chemistry to mathematics and even computer science, the role of sustainability in science is explored in many ways within teaching across the faculty.

Natural Sciences students are encouraged to shape their study to meet personal interests, and can choose streams and modules that focus on sustainability and environmental topics.

You may wonder how sustainability can be incorporated into the teaching of mathematics; modules taught include game theory, which examines voting systems and their links to inequality, responsible consumption and production, epidemic modelling and many others.

Elsewhere in the faculty our pharmacy students are learning how to minimise climate impact as health professionals and the School of Chemistry has been developing an innovative approach to teaching since 2019, which directly incorporates UN Sustainable Development Goals (SDGs), encouraging students to take a wider view of the positive and negative impacts of their chemistry and put their learning into context.

Professor Katharine Reid - Associate Pro-Vice-Chancellor (Education and Student Experience), Faculty of Science

Social Sciences

reating a sustainable future will require an understanding of and engagement with human behaviour, culture, economics, politics and supply chains across different places and locations.

Social sciences are therefore fundamental to achieving the UN Sustainable Development Goals (SDGs). Within the Faculty of Social Sciences, sustainability is taught within particular modules, embedded across degree programmes, and encountered by students as part of practical immersive experiences.

One example takes place this autumn, with students in the School of Geography and the Nottingham University Business School (NUBS) participating in a new 'eco-induction', comprised of a series of events and interactive experiences to raise their awareness and engagement on sustainability.

Students from any school within the faculty can also participate in the Social Sciences Placements Programme alongside their academic studies. These placements give students real-world experience working in sustainability and environment-related Government agencies, NGOs and trusts.

Dr Chris Ives - Associate Professor, School of Geography, Faculty of Social Science



WAYS THE UNIVERSITY IS SUPERCHARGING SUSTAINABILITY ON CAMPUS

1. Reducing carbon emissions

Between 2010 and 2020 emissions on campus were reduced by 40% and we have a target to reduce them by another 63% by 2030.

2. Encouraging staff and student participation

Staff and students can take part in the university's 'Green Rewards' which encourages everyday sustainable action – over 12,000 people across Nottinghamshire are already taking part, saving over 1.7m kg of CO₂.

3. Boosting biodiversity

In 2022 we pledged to become a 'Nature Positive University'; from leaving lawns unmown to creating new wildflower habitats, we're already giving nature a helping hand. We'll be analysing our progress as we go.

4. Levelling up laboratories

The university has signed up to the Laboratory Efficiency Assessment Framework (LEAF). Lab users are incentivised to save water, energy, plastics and other resources, being awarded either a bronze, silver or gold level depending on how many sustainability actions they take.

5. Ethically investing university financial endowment

As well as divesting from fossil fuels, over 30% of our investments are directed into solutions that further the UN Sustainable Development Goals (SDGs).

Find out more about the work of the university's dedicated Sustainability Team: nottingham.ac.uk/sustainability

Webinars

Since 2020, alumni experts from a wide range of sectors have joined our webinar programme, sharing their strategies and tips to help you to develop your professional skills and build your personal attributes. Thousands of you have taken part – either by watching along live or accessing post-event recordings.



How to banish burnout

The feeling of burnout

– being emotionally and
physically exhausted, either
at work or at home – is
something that many will
recognise. In one of our
latest webinars, Harley
Street psychotherapist and
leading burnout expert
Jacky Francis Walker
(Counselling Studies, 1999),
shared her strategies on how
to recognise and address
the key signs of burnout
and boost resilience.

Watch Jacky's webinar: bit.ly/howtobanishburnout

Experiencing burnout?

Here are Jacky's top tips to help you reset and recharge:

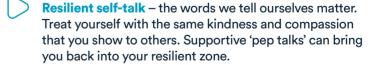
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	Unplug - reduce the constant stimulation generated
	by today's 'always on' digital world.

	Boundaries - introduce clear separation between work
	social media and personal life.

	The three D's – reduce your mental and physical load
	What can you delegate, defer or delete?

Recharging strategies - make time every day, week and
month to relax the body and mind for short, medium and
longer chunks of time. Even five minutes can help.

Take time for you – do something you enjoy. Find th
activities, neonle and places that nourish you





Explore our webinar library

Learn how to grow your networks, overcome challenges and thrive in the workplace with practical advice and insights from our alumni experts. All our webinars are available to watch for free on our website.

Find out more: bit.ly/cwtwebinars

Visit bit.ly/uoncampuses and follow us on social media for more campus content.

We take a moment to explore our campuses and discover iconic locations and hidden gems.

Campus composition



Jubilee Campus

Aspire is a 60m tall free-standing work of art.

University of Nottingham Ningbo China

The Trent Building is a focal point on campus.



Sutton Bonington Campus

The Gateway Building is an example of environmentallyfriendly design.



Jubilee Campus

The Yang Fujia Building showcases the campus's innovative architecture.



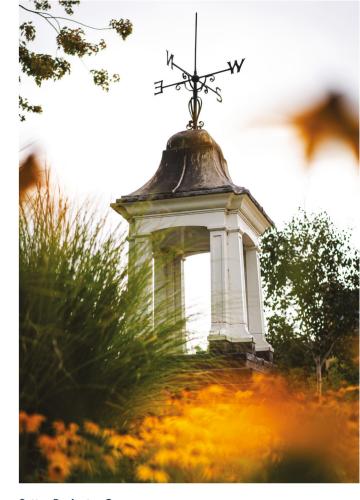
University Park Campus

Acres of awardwinning Green Flag parkland provide space for relaxation.



University Park Campus

Studying in halls at a desk with a view.



Sutton Bonington Campus

The weathervane at the centre of campus, where university life is combined with a countryside setting.



University of Nottingham Malaysia

The Nottingham sign provides a welcome.

Research

Words:

Victoria Hodson and Alex Kuster

Photography:

Marcus Holdsworth and Lisa Gilligan-Lee

Each day, visitors to University Park Campus will pass through the main car park, yet few will notice the modest building sat at one end. Adjacent to the impressive Grade II-listed Cripps Hall, it is easy to overlook. But this is no ordinary building. A glance at the signage offers a clue to just what a truly remarkable place this is – where great minds from days past created and refined a technology that has helped save the lives of millions of people. At the Sir Peter Mansfield Imaging Centre, dedicated researchers today are continuing to develop and evolve this pioneering work to tackle new challenges.

Seeing beyond: the remarkable evolution of MRI

66

We estimate that there are over 60 million, if not many more, MRI scans performed annually around the world.

99

rofessor Richard Bowtell (PhD Physics, 1988) is Head of the Sir Peter Mansfield Imaging Centre (SPMIC). He is also a former student of Sir Peter, who won the Nobel Prize in Physiology or Medicine alongside esteemed chemist Paul Lauterbur in 2003, for his work at Nottingham developing Magnetic Resonance Imaging (MRI). Sir Peter pioneered the use of nuclear magnetic resonance (NMR) to create cross-sectional images of living tissue by using gradients to spatially localise NMR signals. This was described in a landmark paper first published 50 years ago. Though these early images were coarse, this breakthrough soon revolutionised medical diagnosis and changed how the human brain and body

"50 years ago, what started as experiments in the physics department looking at tiny samples, developed into taking the first human images of a hand and then the whole

body," explains Professor Bowtell. "Today MRI scanners are commonplace in many hospitals, and we estimate that there are over 60 million, if not many more, MRI scans performed annually around the world – all helping clinicians and researchers to diagnose and treat a plethora of different conditions and diseases in people of all ages."

Many of us will either have personally experienced an MRI scan or know someone who has. MRI offers doctors a safe, non-invasive way to see inside the body, imaging a 'slice' of an organism in spectacular detail, and opening a window into the brain and other organs of the human body. In doing so, this technology has helped millions go on to lead longer and healthier lives. Nottingham's progression within MRI has been a journey of ongoing discovery and refinement – with the next generations of Nottingham scientists and researchers now leading the way in pioneering new projects.





Professor Richard Bowtell. Head of the Sir Peter Mansfield Imaging Centre



Professor Matt Brookes. Professor of Physics

"Developments in Nottingham have all combined to underpin the improvement of MRI technology over the years," explains Professor Bowtell. "As we've worked to overcome some of the challenges and limitations with the technique, we've also discovered new avenues for research."

It's certainly an exciting time at the SPMIC, with the recent announcement of a £29.1m grant to establish a new 11.7T MRI scanner at a national research facility at the Centre here in Nottingham. A thousand times more powerful than the first scanners developed by Sir Peter, this ultra-high field scanner will enable the university to attract and collaborate with researchers around the world, helping to improve our understanding of neurodegenerative diseases such as Alzheimer's and Parkinson's, plus neurodevelopmental disorders including autism among many others.

"The 11.7T scanner will allow us to look in very fine detail at the anatomy." continues Professor Bowtell. "We can look at function at the level of structures in the brain that are more relevant for the way it operates. These are just becoming visible with our current 7T scanners, but are not very robustly accessible. This more detailed imaging opens up so many new neuroscience possibilities.

"For example, because there is lots of water in the body, we normally image using hydrogen nuclei because there are lots of these available for us to get a signal from. However, inside our bodies there are many other nuclei, like deuterium, but these exist in miniscule quantities, so their signals are hard to distinguish from all the 'noise'. This new scanner gives us the chance to measure signals that rise well above the 'noise'.

"Deuterium is very exciting because it can help us learn more about metabolism. If a patient ingests glucose, that is labelled with deuterium, we can track the chemicals that are produced when it is metabolised. We already know that glucose metabolism changes in tumours, so this provides a new way of mapping metabolism in the brain that has not been possible before now. It's opening up another technique that is complementary to existing cancer diagnostics, positron emission tomography."

But this isn't the only area of development. An innovative research team led by Professor Matt Brookes (Physics with Medical Physics, 2002; PhD, 2005) has recently developed the world's first wearable magnetoencephalography (MEG) system, which could be a game-changer for researchers as both a neuroscientific and diagnostic tool.

"MEG works by measuring the weak magnetic fields produced outside the skull by current flow inside the neurons in the brain," explains Professor Bowtell. "While traditional scanners need the patient to lie completely still inside a large, claustrophobic machine, what my colleagues Matt and others have done, is to develop new technologies to create a lightweight helmet that delivers astounding images of the working brain. This technology can be adapted for a baby or child, offering a much less frightening experience for the patient without compromising data quality.

"Even more excitingly, by integrating OPM sensors, this team have created a scanner that works while the wearer is mobile. This innovation, which exploits magnetic coil designs that were originally used in MRI, is creating so many new possibilities - we can start to answer questions like: why do we fall more as we get older and what happens in the brains of infants as they grow?"

It is imperative that the university continues to build on the exceptional foundations that started at Nottingham. Working across teams is one of the strengths of the university that enables progress to continue.

"Everything we do at the SPMIC is interdisciplinary, drawing in colleagues from different departments and specialisms." continues Professor Bowtell. "Our centre is relatively unique in that it has stayed strongly connected to the School of Physics and Astronomy, fostering excellent connections to many other departments. Professor Penny Gowland from the School of Physics and Astronomy has pulled together a team of medics, physicists, engineers and mathematicians to investigate how the placenta works by using advanced MRI techniques, while colleagues in the School of Computer Science are looking at how we can get enhanced information from images using Artificial Intelligence (AI). How we use AI to acquire images is another area for development, yet attracting and retaining talent is a challenge that all academic institutions face. It's one of the reasons why funding and support, especially for PhD students, is so important.

"We're a very collegiate centre and when we go to conferences, we see many people who have come through Nottingham who are now leading research departments all over the world. We've had a reputation as an excellent place to study and train right from the early days, and it carries on now.

"MRI is such a rich technique, there are always new things that come along. There's an element of serendipity - when something unexpected turns up in the signals that we didn't predict – and good science is being able to spot that opportunity and see where it takes us."

MRI is helping unveil the mysteries of the human body in ways unimaginable 50 years ago, propelling us towards a future where the unseen becomes visible. With open eyes and focused minds - like Sir Peter all those years beforehand - we remain ready to explore the next wave of opportunities that lie ahead.



Professor Sir Peter Mansfield, when he joined the university as a lecturer.

1977



2023



Old and modern, torso at the level of the live

axial, cross-sectional images of the human

THE HISTORY OF MRI IN NOTTINGHAM

Professor Sir Peter Mansfield first ioins the university as a lecturer.

University researchers, led by Sir Peter, start to explore how **Nuclear Magnetic** Resonance (NMR) could form the basis of a new medical imaging technique.

Sir Peter publishes his landmark paper showing how radio signals from nuclear magnetisation can be mathematically analysed to produce useful

images.

Sir Peter takes the first MRI scan of a human body part research student Dr Andrew Maudsley's finger – revealing bone, nerves and arteries.

Sir Peter becomes the first wholebody volunteer despite warnings that the magnetic gradient might be strong enough to induce cardiac fibrillation creating the images of a human torso.

The Magnetic Resonance Centre was opened, focusing on dynamic imaging using echo-planar imaging (EPI), NMR microscopy and neurospectroscopy.

The development of the world's first 3T magnet led to applications in functional MRI (fMRI), including some of the first ever event related studies.

Professor Sir Peter Mansfield is awarded the Nobel Prize in Physiology or Medicine alongside collaborator Paul Lauterbur.

The Centre is expanded and renamed the Sir Peter Mansfield MR Centre (SPMMRC).

The UK's first 7T scanner is developed at the Centre. A 275-channel magnetoencephalography (MEG) scanner was added

in 2007.

become

The first wearable MEG system operational.

We celebrate 50 years of MRI research and innovation. Millions of people all over the world benefit from this journey of research and discovery.

University of Nottingham Connect Magazine University of Nottingham Connect Magazine





We're taking a trip down memory lane as we build on the theme of this year's Nottingham Ambition Giving Day, based on the university's motto: Sapientia urbs conditur. "A city is built on wisdom". We asked you to share one key piece of wisdom that you took from your time studying at Nottingham.

66

Always be bold if wearing the green and gold."

Martin Cooper (Education, 1983)



"In the front of one of my psychology lab books. I wrote "Nihil ex nihilo fit" - nothing comes from nothing. I have found it to be true in life: something always leads up to events. You can read it the other way round too: do nowt and you get nowhere!"

Hal Westhead (Psychology and Mathematics, 1974)



When times get tough, remember how you got here. Persistence, hard work, dedication. Nobody gave it to you. You earned it. And you have a great community around you to grow and become the great person you're destined to be.

Octavio Hernandez (PhD Operations Research, 1998)



This is the place that

is built on wisdom.



On 1-2 November, Nottingham Ambition Giving Day returns. Together, we raised over £100,000 last year to make our first Giving Day a success. Join us this year as we unite to empower students, ignite their ambitions, and shape a future rooted in knowledge and enlightenment.

Get involved and become a vital force in shaping the lives of future leaders, thinkers and trailblazers. Together, we can transform lives and pass on Nottingham's wisdom to future generations of students.

Visit: ambition.nottingham.ac.uk "Choose your friends wisely the people you meet at university could be in your life for a long time to come!"

Chloe Eyre (Psychology, 2015)

"If you're planning to do an all-nighter in the libraries, I recommend Hallward. The beanbags are decently comfy for a power nap (stack two together)!"

Clarissa Anne Teo (International Media and Communication Studies, 2017)



Read why Jacky Hughes (Industrial Economics, 1965) has pledged a gift in her will and learn how you can do the same. Leaving even 1% - after taking care of those closest to you - can make a life-changing impact to a talented student.

Read Jacky's story and learn how you can pledge a gift in your will: bit.ly/JackyHughes

If you would prefer to speak to a member of our team please call: +44 (0)115 823 2408

Connected we thrive – and our round-up of events from across the alumni community goes to prove it!

Whether attending one of our networking events, being part of our volunteering programme or through your own selforganised reunions, so many of you have been an active part of the community this year.

Here are a few highlights:

50 years of friendship

It's said that university friendships last a lifetime – and this group of alumni are certainly evidence of it. Back in 1974 Len Steed (Law, 1975) and 11 friends drove to Sherwood Forest to celebrate the end of their second year exams with a picnic.

Fast forward to July 2023 and the group, which has now expanded to 22 alumni, a former member of staff, and their extended



families met for the 50th time in the Millennium Gardens on University Park Campus.

"Everyone loved their three years in Nottingham, and lifelong friendships have come together as a result. We never stopped feeling like students. As soon as we set foot back on campus, it's like we're right back there again in the 1970s."





Going global with our International Alumni Ambassadors Over the last year, our team has held 35 events across Africa, America and Asia – hosting over 1,200 of you in person, everywhere from Singapore to San Francisco.

Many of the events were assisted or hosted by our team of 60 International Alumni Ambassadors, a dynamic and resourceful group, who help to bring together our global community. Take a look at our events page for networking opportunities near you.

25

Explorer and writer Levison Wood (History, 2004) was back on campus this summer receiving his Honorary Degree. We tracked him down for a chat to share his inspiration.

Nottingham



One place to visit...

Wollaton Hall, a 16th century manor house surrounded by a beautiful deer park just over the road from University Park Campus. Inside, the natural history museum hosts a variety of curiosities ranging from fossils to a taxidermied gorilla. The venue has a unique history and has been the backdrop to several movies. It's a lovely way to spend an afternoon.

One book to read...

Nomads: The Wanderers Who Shaped Our World by Anthony Sattin. A remarkable book on the history of nomadic peoples and the philosophy and psychology of movement. It touches on the consequences of possessing the wanderlust or explorer gene – something I'm pretty sure I have!

One thing to watch...

Evacuation is a Channel 4 documentary about the fall of Kabul to the Taliban in 2021. A harrowing record of the military operation to try and save Afghan interpreters and British citizens.

One piece of advice...

In order to achieve great things, surround yourself with great people. Invest in intelligent, witty, adventurous friends that challenge and push you.

Nottingham Recommends, with inspiration from across the university community, is featured each month in your alumni newsletter.

Community

Voluntary vision

Nearly 1,200 of you volunteered your time and expertise to support our programme over the last academic year, helping current students grow and thrive. Thank you!

One of the highlights was the first ever Black Industry Connections and Empowerment Programme (or BICEP for short), which offers students from Black heritage backgrounds the opportunity to expand their personal and professional networks, meet inspiring Black role models, and find empowerment while at university. Over the course of four months, our 24 volunteer mentors provided 87 students with insights into what it's like working in a variety of industries. BICEP has been a hugely positive new initiative for 2023 and we look forward to seeing the programme continue to grow.





Building up the business

Our Nottingham University Business School (NUBS) team has had a busy year, hosting alumni events in London and Beijing among others.

They also took current MBA students to the offices of leading alumni in business as part of Business Practice Week, visiting e-commerce giant The Hut Group (THG) in Manchester and then onto Bloomberg and the London Stock Exchange, as well as to New York for the International Study Tour.

Several of you also returned to campus to share your business experiences in 'Lunch with a Leader' sessions and career talks.

Step into the 'Econverse'

Eight inspiring alumni with jobs ranging from Formula 1 broadcaster to tech CEO to a YouTube tai-chi filmmaker took to the microphone for a new student-led podcast this year. Econverse is the brainchild of the School of Economics, with students posing the questions to their alumni guests, exploring the breadth of career avenues an economics degree can deliver.

news

Tune in at $\mbox{bit.ly/econverse}\mbox{pod}\mbox{cast}$

GET INVOLVED

Visit **nottingham.ac.uk/alumni** to find out more about our upcoming events, volunteering opportunities and other ways for you to connect to your alumni community.

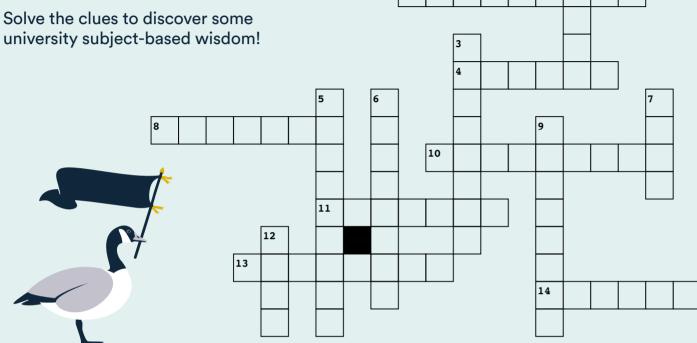
We also love to hear what's going on in your world – contact the alumni team with your updates and achievements at alumni-enquiries@nottingham.ac.uk

Goosey's games

We've expanded our gaming repertoire this year - not only do you have a crossword to tackle but also a word wheel. Enjoy!

Crossword

university subject-based wisdom!



Across

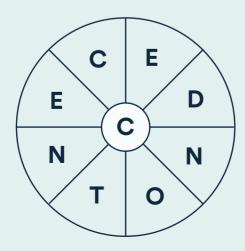
- **2.** Maths: triangle with two sides of equal length **(9)**
- **4.** Medicine: he had a germ of a theory **(6)**
- **8.** Plant Biology: insane in the membrane (7)
- **10.** Economics: invest in your garden **(5,4)**
- 11. Architecture: building aesthetic of the 1920s (3,4)
- 13. Geography: the earth's plates (8)
- 14. Astronomy: Han Solo's favoured measurement (6)

Down

- **1.** English: down the rabbit hole! **(5)**
- **3.** Art: the birthplace of the Renaissance (8)
- **5.** Philosophy: he thinks, therefore he is **(9)**
- 6. Civil Engineering: The cops know about this term (8)
- 7. Music: the Italian tail (4)
- **9.** Classics: my fault! **(3,5)**
- 12. Chemistry: its symbol is Ne. Period (4)

Word wheel

You have five minutes to create as many words as possible from the wheel. There is one nine letter word!



Discover the answers at bit.ly/gooseysgamesanswers

Our alumni programme is here to help you to grow and thrive professionally and personally. Here are some of the highlights of our upcoming programme.

Connected we thrive



Webinars

Our webinar programme continues with our next webinar taking place this autumn and a new series launching next year, bringing you practical advice and insights from our alumni experts.

Find out more: bit.ly/cwtwebinars



Seminars

Sharing the latest in research and thinking from Nottingham University Business School and insights from alumni across a variety of industries, our seminars take place in the spring, summer and autumn, with our next seminar coming up in November.

Find out more: bit.ly/cwtseminars



Networking

We have an exciting programme of upcoming events, including:

Golden Reunion

Classes of 1973 and 1974, join us at this event hosted by President and Vice-Chancellor Professor Shearer West at University Park Campus on 16 May 2024. Invitations will be sent shortly - save the date!

25 years of NUBS

Celebrating 25 years of Nottingham University Business School (NUBS) with a new global event series starting this autumn: "The second quarter century". Find out more and how you can book your place on page 9.

Global alumni events

Join us at alumni events in Hong Kong and Singapore in February 2024; Accra, Nairobi, Cape Town and Johannesburg in March 2024; Los Angeles, San Francisco and Vancouver in May 2024; and Boston and Washington DC in June 2024.

Visit nottingham.ac.uk/alumni to explore our full programme and bit.ly/uonalumnievents to find out about our upcoming events.

Connected we thrive

Alumni survey: shape your alumni experience

Thank you to everyone who has helped shape our programme so far by sharing your feedback. Continue to let us know what you think and help us to keep improving your alumni programme in our alumni survey – it's open until 31 January 2024.

Share your views: bit.ly/uonalumnisurvey2023

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DISCOVER OUR WORLD ONLINE

Grow who and what you know with our on-demand content, events and opportunities.

nottingham.ac.uk/alumni

Sign up to our emails

Don't miss out – get the latest alumni updates, opportunities and events delivered directly to your inbox.



bit.ly/connectform2023

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