IMRERIA

Supporting scientific imagination and discovery

The Impact of Giving 2023–24

Imperial College London



Welcome

I am delighted to welcome you to the latest edition of Imperial College London's *Impact* of *Giving Report*. On behalf of the Imperial community, I'd like to express my sincere thanks for your incredible generosity.

Together, you gave a landmark \pounds 91 million in donations in 2023–24 – the largest amount donated to Imperial in a single year.

Over 80% of donors were alumni, reflecting the generosity of our community and your continued investment in Imperial. Your giving, whether financial, skills or time, has been truly transformative.

And that's not all we've had to celebrate in this period. We launched our Strategy, Science for Humanity, which seeks to maximise Imperial's potential as a force for good in the world, through enabling talent, powering research and amplifying impact. As we bring more of Imperial to the world, we'll bring more of the world to Imperial. Supported by our global alumni and our network of Global Hubs, we'll expand international collaboration with academic and industry partners. Philanthropy will play a critical role in delivering our ambitions, from nurturing the next generation of academic leaders to supporting research within our four new Schools of Convergence Science.

Imperial also achieved second place in the QS World University Rankings, making us the top-ranked university in the UK and Europe – a true testament to the quality and commitment of our entire community.

As you read this report, I hope you will be as inspired as I am by the incredible work our community is leading, made possible thanks to your support.

Opposite: A researcher carries out blast injury studies at the Sir Michael Uren Hub at Imperial's White City Campus Your giving enables a new generation of Imperial students to pursue their passions, no matter who they are, where they come from or their financial resources. You'll hear from three such students throughout the report, on pages 7, 14 and 20.

You're also fuelling groundbreaking research, from high-speed aerodynamics for space exploration (pages 4–5) to psychedelic therapy (pages 22–23). We are also grateful to the Gatsby Charitable Foundation, the Bezos Earth Fund and Dr Victor Dahdaleh for their philanthropic leadership, and for enabling new advances on global challenges such as economic growth, sustainability and public health.

And as we ease into 2025, I'd like to extend a warm welcome to Kristin Blanchfield, who joins Imperial from Johns Hopkins University, USA, as Vice President (Advancement). Kristin brings a wealth of leadership experience in alumni engagement and philanthropy to harness the full power of the global Imperial community.

Thanks to the collective support of the Imperial community, of which you are an instrumental part, 2023–24 was an immensely successful year. As we forge ahead with Science for Humanity, I hope you'll remain an active part of our journey as we cement Imperial's position as a global home for everyone who believes in the power of science to discover, create, explain and transform.

Professor Hugh Brady President of Imperial College London



Thanks to the incredible support of our donor community, 2023–2024 was a momentous year for Imperial. We revealed our new strategy, carried out exciting activities to expand our global presence and celebrated your generosity and the students you're supporting through memorable events. Here, we've shared just a few of the incredible moments that marked such a landmark year.

Highights from the year 2023 2024



Singapore

Global Hub launch Imperial opened its first overseas research and innovation centre in Singapore. The pioneering centre facilitates and strategises innovative research performed collaboratively between Imperial scientists and partners in Singapore. This research encompasses projects aiming to tackle major global challenges to help build a better future for society.

Celebration of Student Support event The inaugural Celebration of Student Support event

brought together donors, scholars and university staff for an inspirational evening recognising the transformative impact scholarships have on their talented recipients and honouring the generosity of supporters.

Abdus Salam Library unveiled Imperial's Great Hall was brought alive to

celebrate the formal launch of the Abdus Salam Library, named in honour of Professor Abdus Salam - one of the giants of 20th-century theoretical physics who made Imperial his academic home for 40 years. The packed event was a celebration of Professor Salam's legacy and included a lecture by Professor Brian Cox CBE.





Imperial strategy announced In March 2024

Imperial President Professor Hugh Brady announced the launch of the university's new strategy Science for Humanity. The strategy has three core aims enabling talent, powering research and amplifying impact - all designed to help us maximise our potential as a force for good in the world.

School of Public Health official

opening Chief Medical Officer Professor Sir Chris Whitty hosted an event celebrating the official opening of Imperial's **School of Public Health** building - a new research facility driving advances in health policy and preventing and treating disease. The celebration included key donors such as Dame Marit Mohn and global philanthropic

organisation Community Jameel, who contributed generously towards



Inaugural Impact < of Giving event An inaugural Impact of Giving event brought together donors and friends of Imperial to celebrate. connect and learn about the impact of philanthropy at the university. Guests heard from Imperial students, staff and alumni and engaged with





legacy giving More than 50 supporters from The Queen's Tower Society gathered at The Smith Centre in the Science Museum for an exclusive afternoon tea to commemorate the significance of legacy giving at Imperial.

Honouring

Road Festival broken at this year's Great Exhibition Road Festival, held in and at this annual flagship

 \wedge







Great Exhibition

Attendance records were around Imperial's South Kensington Campus. Tens of thousands of visitors enjoyed a wide range of activities and exhibits event, held in partnership with the Science Museum and Royal Albert Hall and supported by volunteers.





Mohn Centre official launch The Mohn Centre for **Children's Health and** Wellbeing celebrated its official launch with a week of activities at Imperial's White City Campus. Staying true to its community led approach, the Centre included primary school children, local organisations, scientists and members of the public in its celebrations

2024 Alumni

Award winners Imperial celebrated its 2024 Alumni Award winners at a special awards ceremony which highlighted their outstanding accomplishments in the field of STEMB, Awardees are using technology and innovation to tackle the biggest issues facing our society.

or years, aeronautical engineers have pushed boundaries to design aircraft that maximise performance and efficiency without compromising safety. Recent advances in lightweight materials have led to radical new designs for lightweight, highly flexible aircraft capable of efficient flight under extreme flight conditions. For these high-performing aircraft, predicting and mitigating the unstable oscillation of aircraft surfaces during flight a phenomenon known as aeroelastic flutter - is critical. Flutter typically affects the wings, control surfaces and stabilisers of an aircraft and can lead to damage and, in extreme circumstances, failure of the aircraft structure.

Despite the critical nature of flutter analysis, accurate modelling remains a challenge. Simulating real flight conditions is a complicated and demanding process and requires access to wind tunnels, which are expensive to build and run. This is particularly true for aircraft that fly at transonic (close to the speed of sound) and supersonic (greater than the speed of sound) speeds, where the effects of shockwaves must be captured at realistic conditions and scales – something few wind tunnels can do accurately.

A special philanthropic gift

Thanks to the generosity of Sanjay Patel and his wife Leslie, who gave a gift in honour of Sanjay's father and Imperial alumnus Dr Hiralal N Patel, Imperial's Department of Aeronautics has been able to overcome this problem by building a state-of-the-art wind tunnel facility designed for high-speed airflow research. The Hiru N Patel Supersonic Wind Tunnel has strengthened Imperial's research environment of discovery and innovation by enabling the study of airflow at speeds of up to five times the speed of sound.

Dr Paul Bruce, Reader in High-Speed Aerodynamics at Imperial, led the design and development of the wind tunnel. He says: "This tunnel is incredibly special as it can recreate a range of flight conditions that no other tunnels in Europe can.

Thanks to a gift made in honour of alumnus Dr Hiralal N Patel (PhD Aeronautical Engineering 1945), Imperial researchers are recreating the extreme flight conditions present in space using a unique purpose-built supersonic wind tunnel.

Reaching supersonic speeds

Dr Paul Bruce (left) and a colleague inspecting the supersonic wind tunnel



"Uniquely, our tunnel can simulate the conditions encountered by a vehicle as it exits or re-enters an atmosphere from space, giving us a distinct competitive advantage." Dr Paul Bruce

"The majority of wind tunnels in operation today were designed decades ago and are limited to run at certain conditions and speeds. Ours, on the other hand, can run at widely variable settings for heating, pressure, altitude and speed - which means it can be used to test a range of conditions vehicles might expect when flying, whether it's to the edge of the atmosphere or at sea level.

"We're so grateful for the incredible generosity of the Patels, which has made this exciting new facility a reality. I have no doubt that it will inspire students and researchers at Imperial for decades to come."

Advancing research into Martian and space vehicles

Imperial is using the tunnel to tackle emerging challenges in the field of high-speed aerodynamics. Its research has applications in fields such as military and civilian aircraft design and in Martian and space exploration.

"Practically all aircrafts in use are designed to fly on earth," explains Paul, "and it's only in recent years that we've started to think about how vehicles might fly on other planets.

For example, on Mars, where the atmosphere is wildly different to Earth, conventional aircraft perform poorly, so we have developed radical new designs.

"If you want to put a spacecraft into orbit, you have to understand how it flies at very high speeds. During the design phase, simulating high-speed, high-altitude flight is crucial. Our tunnel can, uniquely, simulate the conditions encountered by a vehicle as it exits or re-enters an atmosphere from space, giving us a distinct competitive advantage. We're bringing high-speed experimental research into the 21st-century, and using it to explore important and unanswered questions."

Honouring alumnus Dr Hiralal N Patel

Dr Hiralal N Patel, who passed away in 2021 at the age of 101, obtained his PhD in Aeronautical Engineering from Imperial in 1945, and his thesis has been credited as developing our understanding of flutter. The tunnel's capabilities regarding its accurate modelling of flutter will enable continued study of the work Dr Patel was so passionate about.



"My father's love for Imperial was so strong that honouring his memory with this project would have meant a lot to him."

Sanjay Patel

Inspiring students

"I began watching NASA documentaries about missions to other planets, and it inspired me to pursue a career in the field." **Jayden Jackson**



Cowrie Scholar and Aeronautical Engineering undergraduate Jayden Jackson is making the most of Imperial's enabling research environment by learning technical skills and tackling complex problems.

Jayden, where does your passion for aeronautics come from? From a young age, I've been interested in space and sci-fi, often watching films and playing games related to the themes. As I got older, I began watching NASA documentaries about missions to other planets, and it inspired me to pursue a career in the field.

I studied Maths and Physics during my A-levels and researched which degrees would have the best path into industry. I discovered Imperial has a fantastic Aerospace Engineering course and the rest is history!

Did you have any expectations before joining Imperial? During my A-levels, I took Imperial's online Further Mathematics course, through which I visited the campus. I got the impression Imperial's full of hardworking smart people who are eager to learn and tackle problems.

And how does the reality match up?

It's met my expectations! And I've been pleased to discover Imperial promotes an encouraging learning environment. If you don't know something, you can always ask - there's no judgement.

What skills have you developed in your first year? The focus has been to develop the necessary foundations of aerospace design, so that more challenging concepts and practical applications can be explored in later modules. I've improved my skill set in bottom-up problem solving, that is, establishing the conditions for a problem and solving from first principles. I've also learnt to code.

"If you want to put a spacecraft into orbit, you have to understand how it flies at very high speeds." **Dr Paul Bruce**

> Above: Sanjay Patel and his wife Leslie, who gave a gift in honour of Sanjay's father Dr Hiralal N Patel

Right: Imperial's wind tunnel can recreate a range of flight conditions that no other tunnels in Europe can



What's your biggest academic achievement?

We had an open-ended task to write code that computed various performance metrics for the Ingenuity Mars Helicopter rotor blades, using blade element theory (a model for how rotorcraft generate power). I struggled to piece together this complex puzzle of equations, but when I finally got my code to run consistently and produce logically sound outcomes, I felt an enormous sense of pride.

Finally, why are scholarships important for diversifying talent within STEM?

They help to boost representation, which ensures students from all walks of life can see themselves reflected in the student body, in turn empowering them to apply. It's a feedback loop. These students who graduate and go on to successful careers then also become role models in industry and potential mentors. I'm so grateful to Imperial and The Cowrie Scholarship Foundation for providing me with opportunities that will help me achieve academic and professional success.

The Cowrie Scholarship Foundation and Imperial

The Cowrie Scholarship Foundation (CSF) provides fully funded scholarships to UK partner universities for talented Black British undergraduates. By partnering with universities such as Imperial, they aim to transform the lives of over 100 talented disadvantaged Black British students through education. Imperial has committed to supporting six Cowrie Scholars with tuition fees and a package of support to aid living costs in partnership with CSF.

Supporting innovative research beyond a lifetime

After a long and successful career in bioengineering, alumnus Louis C. Sheppard (PhD Electrical Engineering 1976) left a lasting legacy at Imperial by giving back to the university.

> ouis C. Sheppard spent most of his life solving increasingly challenging problems. By the end of his career he was known for expanding technology in healthcare and laboratory settings, but the start looked very different.

Beginning in the petrochemical industry, he quickly saw the promise of computers and moved into professional services at IBM. This led to clinical computing assignments at MD Anderson and PhD programmes. Cancer Center and the Mayo Clinic. Within a couple of years, he was invited to join the highly regarded cardiac surgery programme at the University of Alabama at Birmingham (UAB). where he remained from 1966 to 1988.

"My father was driven, intelligent and astute," shares David Sheppard. Dr Sheppard's son. "He was dedicated to learning every day and he loved research - always seeking the truth."

From dream to reality

In 1973, Dr Sheppard was given the opportunity to take a sabbatical, during which he moved from the US to the UK to undertake a PhD in Electrical Engineering at Imperial, with his young family in tow.

"It was his greatest dream to join Imperial," says David. "The university's reputation and the prospect of working alongside leading expert Professor Bruce Sayers, Professor of Engineering Applied to Medicine at Imperial, were huge draws for him.

"It was a challenging time, but our family was very proud of him. We saw it as one of the highlights of his, and our, life - and he felt the same way."

A pioneer of biomedical engineering

Upon completing his PhD, Dr Sheppard returned to UAB, where he became the first Chairman of the Department of Biomedical Engineering and led the faculty in establishing its Master's

He was also instrumental in technology transfer and research commercialisation. He developed computer-based systems for use in intensive care, including automating the process for stabilising patients' blood pressure, having noticed how time consuming it was for nurses to do it manually.

"His technology was regarded as revolutionary," says David, "but what mattered to him most was that it helped patients while freeing up the nurses to focus on other critical aspects of patient care."

By the time he retired in 1998, Dr Sheppard had made a name for himself in the field of bioengineering and ended his career as Associate Vice President for Bioengineering and Biotechnology at the University of Texas Medical Branch at Galveston.



David Sheppard





Alumnus Louis C. Sheppard in his office at UAB (circa 1973) and on the cover of UAB magazine

Right: Alumnus Louis C. Sheppard in the lab at UAB (circa 1968)

"My father was driven, intelligent and astute. He was dedicated to learning every loved research - always seeking the truth."



Louis C. Sheppard



In retirement, his love for learning continued, and he spent much of his time reading and writing about topics such as archaeology, history and politics. He passed away in 2019, at the age of 85.

Leaving a legacy gift

During his lifetime Dr Sheppard supported the Department of Bioengineering, specifically the work of friend and former colleague Richard Kitney, Professor of Biomedical Systems Engineering, and his team.

"Dad believed strongly in ongoing education and appreciated the opportunities that it afforded him,"

explains David. "He was particularly grateful for his time at Imperial and he recognised the difference it made in his prosperity, so he wanted to share some of this in return."

Upon Dr Sheppard's and his wife Nancy's passing, David generously chose to gift funds from a family trust that had Imperial named as the beneficiary to the Department of Bioengineering, and Professor Kitney's work, on behalf of his father. The money is being used to support synthetic biology and alternative proteins facilities in White City, something David believes his father would have been interested in.

From bench to bedside: Using novel technology to heal broken bones

Imperial startup AptaBone has leaned into our culture of entrepreneurship and used a philanthropically funded accelerator to advance its MedTech innovation in bone repair.



usculoskeletal (MSK) conditions – those affecting the bones, joints, muscles and spine – are the leading contributor to disability worldwide and a common cause of pain in the body.

Fractures are common MSK injuries and the most serious seen in the older population. Most fractured bones heal without any problems, but as many as 10% may result in a nonunion – a defect in which the bone fails to heal. Patients with nonunions usually feel pain at the site of a break long after the initial pain of the fracture disappears – sometimes for many years.

Existing treatments can have slow healing times, limited effectiveness and cause side effects that complicate bone repair and limb length maintenance. Seeing a gap in the market for a safe alternative to the standard therapeutic strategies, Imperial PhD student Magdalene Ho and her team came up with the idea for AptaBone – a targeted, DNA-based technology that selectively harnesses a combination of natural proteins from the blood to promote the healing of nonunion fractures.

Using novel TrAPs technology

AptaBone makes use of traction force-activated payloads (TrAPs) technology developed by Dr Ben Almquist FIMM, Senior Lecturer in the Department of Bioengineering and co-founder of AptaBone. After an injury, cells 'crawl' through the collagen 'scaffolds' found in wounds. As they move, they pull on the scaffold, which activates hidden healing proteins that begin to repair injured tissue. TrAPs technology recreates this natural healing method. It consists of handles that cells can pull on, causing the TrAPs to unravel, releasing and activating the therapeutics locally for the wound.

"I've worked closely with Dr Almquist throughout my PhD," says Magdalene, "and I saw the incredible potential TrAPs technology has to revolutionise the healing of nonunion fractures. AptaBone uses the technology to target the delivery of growth factors (naturally occurring substances capable of stimulating wound healing) harnessed from blood to promote bone regeneration at the site of injury while preventing unintended bone growth elsewhere."

By delivering growth factors in a localised and targeted manner, AptaBone requires a lower dose when compared to existing untargeted clinical methods. In addition, the use of growth factors from blood, a natural source, enables multiple growth factors to be used, leading to more effective healing. Overall, AptaBone's reduction in therapeutic amount mitigates the risk of off-target effects, lowers therapeutic costs and enhances overall patient safety and accessibility.

Opposite: Imperial PhD student Magdalene Ho co-founded AptaBone to improve treatment options for fractured bones





Dr Ben Almauist FIMM. Senior Lecturer in the Department of **Bioengineering and** co-founder of AptaBone

Accelerating MedTech innovation

With no prior experience of commercialising research and in need of support to launch her enterprise, Magdalene joined the 2023/24 cohort of the Imperial MedTech SuperConnector MSK Innovation Accelerator – a six-month programme designed to scale early stage startups focused on solving MSK issues in the UK.

Supported by Orthopaedic Research UK, this programme supports startups through the complex journey of concept to market, offering targeted mentorship, training and strategic partnerships. Throughout the programme participants gain the skills, resources and connections needed to successfully commercialise at an early stage.

"The accelerator has provided me with access to mentorship, business masterclasses and feedback sessions," says Magdalene. "Hearing from people with different experiences and perspectives to yours is so important when building a startup, as it challenges your own biases and assumptions.

"I've also gained skills that are making me a better leader and co-founder. For example, I've been able to improve my communication and learn how to translate ideas in a way that will be accessible to those without the same knowledge base as me. And I've also been empowered to be more versatile. All startups go through constant flux, but it can be an unnerving process when you're experiencing it for the first time. The accelerator has helped me feel comfortable adapting my approach, all while working towards the end goal."

About The MedTech SuperConnector

Imperial's MedTech SuperConnector (MTSC) supports early career researchers building research-led ventures that aim to deliver innovative and impactful healthcare solutions, through its entrepreneurial skills-based accelerator programme.

Since its launch in 2018...

has been raised by its early career researchers in translational grant funding and venture capital investment

early career researchers have been supported by the MTSC ecosystem

external networks have been engaged with by MTSC innovators



Alumnus and donor

Mike Lewis (MEng

Chemical Nuclear

Engineering 2013)

and why he's been

inspired to support

the next generation

their passion.

of students to pursue

discusses the impact

receiving a bursary had

on his time at Imperial,

My grandfather and dad were and built successful careers by practical, which nurtured in me an interest in engineering. But I also had a love for chemistry and nuclear science, so pursued a degree in

Forging my own path by going the academic route meant I didn't have a blueprint to follow. But in my heart, I always wanted to go to London. I grew up in the Medway towns which is quite a deprived area, so I saw university as my chance for change. Imperial was at the top of my list, and I was over the moon when I got my offer.

Unfortunately, my father was made redundant just after the financial crash in 2007–08 and my mum's business went belly up, so when I started Imperial in 2009, they weren't in a position to offer me financial support.

Receiving the bursary was a lifesaver. Living in London is incredibly expensive, and without the bursary I would have had to get a part-time job. Some of my highlights from Imperial are playing rugby, acting in the drama society and directing a play - all of which I would have missed out on if I had to fit a part-time job around my classes and homework.

Without the financial stress I was also able to give my studies the attention they required. At Imperial, you go really deep into a subject. The technical education is second to none. It's also very humbling. To put it bluntly, you go from being the top of your class at school to being surrounded by clever people and no longer standing out. And there's no hand-holding to get through it. Rather, inquisitiveness and individual

"The accelerator has provided me with access to mentorship, business masterclasses and feedback sessions." **Magdalene Ho**

Magdalene Ho conducts tests in the lab



Paying it forward

tradespeople – both did apprenticeships working their way up. They were very chemical nuclear engineering.

learning was instilled in us, which I think set me up well for the workplace.

After graduating I joined Rolls Royce, one of the larger UK nuclear companies, on their leadership development graduate programme. I spent a few years doing engineering roles in various locations, including the US. I then transitioned to a permanent staff role within the Rolls Royce nuclear business and was promoted into management quite quickly. I remain there a decade later, currently as Chief Engineer and Head of Strategic Programmes.

I'm fortunate now to be in a position where I'm financially comfortable because of my education, so I donate to Imperial because it played a role in getting me here. Someone from my background doesn't get to where I am today without institutions like Imperial and the generosity of people who give to student support.

Since I was a student, costs have increased immensely, so those who have received opportunities that have helped them lead comfortable lives need to pay it forward. We owe it to the next generation to give them the opportunities that we had. After all, we'll need them to solve the problems of the future that we're leaving in our wake, in the same way that we're solving the problems that our parents and grandparents' generations left in theirs.

What is the Imperial Bursary Fund? The Imperial Bursary Fund provides vital financial assistance to Home undergraduate students from low-income backgrounds who would otherwise not be able to benefit from an Imperial education. Each year, thousands of students are supported through the Fund.

Inspiring students

"I'm so grateful for the donors whose support has given me the chance to widen my knowledge base and develop my presentation skills." **Henry Grub**

In the fight to tackle bovine tuberculosis, Dean's Fund recipient Henry Grub is engaging key players in biodiversity conservation, from UK farmers to leading global organisations, as part of his PhD in Environmental Policy.



This page: Henry Grub on location at FAI Farms at Wytham

Opposite: Conducting fieldwork for his research, including interviewing farmer

Henry, how did your upbringing influence your academic path? I grew up near the High Weald in

South East England, which meant nature was always on my doorstep. Some of my fondest memories were made in Britain's countryside - exploring the woods, roaming along the coasts in Devon and watching different animals.

In secondary school I had an inspiring science teacher who taught us about sustainability and climate change issues. He knew of my deep appreciation for nature and encouraged me to take on extracurricular activities, including greening the school's grounds and being part of a committee that advocates for biodiversity. These projects made me realise that I can be part of the solution to our world's problems, which influenced my decision to do my PhD in Environmental Policy.

What is your research about?

It's about how the decisions humans make impact the natural world, particularly in relation to bovine tuberculosis (TB) - an infectious disease that affects cattle - in England.

I studied bovine TB during my undergraduate degree and found it interesting to learn about the policy

complexities, epidemiology and social science elements of how farmers view the disease. Badgers are carriers of TB and badger culling has become a prominent control mechanism despite mixed scientific evidence about its effectiveness.

My focus is on understanding more about the decisions farmers make to reduce the risk of TB infections in their cattle, and what results this has for local wildlife.

How has Imperial supported your research?

It has been fantastic. My research requires me to interview farmers and, from day one, I've had access to the resources I need to visit farms around the country, from Cornwall to the Peak District. Being able to hear from farmers first hand is so much more impactful than reading books and research papers.

I got to interview farmers who had taken part in a first-of-its-kind badger vaccination pilot, co-managed between farmers, scientists (including Imperial researchers) and conservationists. I found the farmers' enthusiasm for vaccination increased after the programme which is really significant.

As someone who grew up in the countryside, I've seen how bovine TB impacts farmers and local wildlife directly, so I'm keen to help find a solution to this important issue.

And what opportunities has the Dean's Fund afforded you?

It allowed me to attend the UN's **Biodiversity Conference (COP 15)** in Montreal. This conference was where the new Global Biodiversity Framework was decided, determining how conservation will be carried out for the next decade or so. It was a fantastic experience. I had the opportunity to sit in the negotiation room and witness the process for international negotiations - certainly not an experience you get every day! I also met many influential researchers and policymakers.

Philanthropic funding also supported my attendance at the European



in Bologna, Italy. During this conference I presented my research into badger vaccinations: the way in which different schemes were set up and communicated with farmers, how this affected the perceived success of the vaccination and my recommendations on how to make future schemes more successful.

I'm so grateful for the donors who have given to student support. Without the funding, I wouldn't have had the chance to attend these conferences, widen my knowledge base and develop my presentation skills. These opportunities have meant the time spent doing my PhD has been filled with rich experiences I wouldn't otherwise have had.

What real-world impact do you hope your research will have? I hope my work can help inform

researching scaling up badger vaccinations, looking at case studies and ways of communicating with farmers to improve the effectiveness of these vaccination programmes. Having had the opportunity to present these research results at the European Congress of Conservation Biology, I'm one step closer to impacting policymaking.

My goal is to provide direct recommendations to government. As a scientist, I would be really happy if the government implements one of my recommendations and it has a positive impact on the future.

In the long run, I hope there's a positive shift in the number of people, organisations and institutions caring for nature, biodiversity and conservation. If my research or science can go some way to making this a reality, then it

The year in numbers

Over 3,600 individuals and organisations came together during 2023-24 to donate a record-breaking £91.9 million to Imperial College London. These donations - the largest amount given in any single year in Imperial's history - have opened doors and provided transformative opportunities for students and staff, enabled innovative research to be carried out and supported the development of world-class facilities. We are deeply grateful for each and every donor who chose to give this year - your generosity continues to have a remarkable impact on our community and beyond.

We're delighted to celebrate the generosity of those who gave to Imperial during 2023-24, through our online donor list. Take a look to see all those who supported us in this period: imperial.ac.uk/giving/donor-roll



The £91.9 million raised went towards the following areas: research; student support; buildings, equipment and capital; academic posts; and supporting emerging priorities.

£67,799,462 Research

£5,421,211 Scholarships, student support and prizes

£1,256,296 Unrestricted funding for areas of greatest need





Championing community voices

Imperial's philanthropically funded Mohn Centre for Children's Health and Wellbeing is proving that community engagement has a key role to play in improving children's health.





etting the right start in life is essential for a child's development and their life-long health. Many factors influence the likelihood of developing certain health conditions, including access to green space, mobile phone usage and socio-economic disparity.

Using a community-led approach to transdisciplinary research, Imperial's Mohn Centre for Children's Health and Wellbeing aims to transform urban living for children, particularly those in society's most deprived communities. Based in Imperial's School of Public Health at the White City Campus in West London, it uses research and partnerships to provide information and evidence that promote good health to the local community and beyond.

The Centre was established following a gift from Imperial alumnus Dame Marit Mohn (MSc Chemical Engineering and Chemical Technology 1973). Receiving philanthropic support has enabled the Centre to carry out its innovative work without restrictions, greatly benefitting the community. Dr Rachel Smith is a research fellow in population child health at the Mohn Centre, with a background in environmental epidemiology. She says: "Health and environment are directly linked when it comes to important physical and mental health challenges and inequalities. As such, we take a holistic approach to our work by unpicking the complex interactions between environmental, behavioural, genetic and molecular factors."

The power of

community-led collaboration Rachel and her colleagues carry out innovative engagement with children and young people and the wider community, to ensure the voices of those they're looking to support influence the Centre's research.

"We're unique in that, from the very start, we've been community led," says Rachel. "We ask the community what they believe is important regarding children and young people and the urban environment, and then we map where our academic areas of interest align and how we can integrate their views." The Centre has been well received within the local community, and community members have shown real appetite to collaborate with the researchers and participate in research that can support them. Furthermore, the engagement the Mohn Centre has received has caught the attention of other organisations and groups looking to serve the same community.

"We're always connecting with groups that want to work with us to generate evidence about the effectiveness of the work they do," says Rachel, "ranging from youth engagement officers from the Metropolitan Police who are looking to reduce youth violence, to local council representatives. We invited the local MP to attend a premiere of films the Mohn Centre made with local children and young people, and it was a brilliant opportunity for these individuals to have their voice heard by someone with influence.

"It took time to build the relationships we enjoy today, and we put a lot of investment into building trust. "The exchange of value is never one-sided – we give as much as we take. I'm very proud of the community work we have developed, and it's my favourite part of my role. I love getting out from behind the screen and hearing what people think. Children have no filter and say exactly what's on their mind, which is refreshing."

Celebrating a brighter future for children's health

An official launch to celebrate the Centre and its place in the community took place in 2024, with a programme of events that brought together local school children, community groups, academics from Imperial and external leading experts in child health.

The activities included a tour of the Centre, during which over 50 students from the local St Bernadette's Primary School met scientists and engaged with interactive stations reflecting Imperial's research. The Centre also hosted an afternoon of talks and panels to highlight developments and trends in child health, both locally and internationally. Attendees heard from a range of diverse voices, including experts in the field of children's health, school and charity representatives, the director of public health from the local council and a student who had taken part in one of the Centre's studies.

"Despite the range of experiences and seniority, all the panellists sat as equals and gave their views on what they felt was important in the children's health space," says Rachel. "It was incredible to watch everyone come together in this way.

"The launch was a huge success and it really demonstrated the momentum at the Mohn Centre. By working hand-in-hand with local communities and the organisations that serve them, we can create healthier lives for those growing up in urban areas through our research, and ensure every child has the opportunity to thrive and achieve their full potential."







Above: The Mohn Centre carries out innovative engagement with children and young people

Opposite left: Young people speaking at the Mohn Centre launch event in July 2024



"We take a holistic approach to our work by unpicking the complex interactions between environmental, behavioural, genetic and molecular factors." Dr Rachel Smith

Left: School students enjoy an interactive science lesson with Imperial researchers

Inspiring students

"It was the first time in a long time that I felt someone wanted me to achieve what I was aiming for." Isra Sulevani



Isra, where does your passion for medicine come from?

From a young age I've volunteered with charities, often working with doctors. Realising the impact this work has on people motivated me to contribute to public health through my career.

And what made you want to study at Imperial?

In Year 12, I joined Imperial's STEM Potential programme, aimed at widening access to university for young people from underprivileged backgrounds. My family was homeless at the time; to say those years were tough would be an understatement.

Imperial gave me hope. It was the first time in a long time that I felt someone cared for my situation and wanted me to achieve what I was aiming for. I knew this was a university I wanted to be a part of, so I worked hard to achieve the grades I needed.

Starting university felt like an absolute privilege and still does. I'm so thankful to everyone who supported me to get to where I am today and to those of you who continue to support me on my journey through the bursary scheme.

What opportunities has studying at Imperial given you?

Imperial is such a research-intensive university, and the academic tutoring and support we receive are incredible. I can attend any lecture that I'm interested in, and I always feel encouraged to participate in research projects that align with my interests.

I also like that everybody helps each other out. I've had senior undergraduates help me prepare for exams and alumni who are now working as foundation doctors support me during placements in wards. They've gone through the same process so they can empathise.

How many different types

of placements have you been on? So many! I've worked at different GPs and surgeries, on the respiratory ward at West Middlesex and in the cardiology department at Hammersmith Hospital. The variation is great as it exposes me to different things. Something that has surprised me is how interested I am in anatomy – I really enjoy applying what I've learnt on placement in the dissection room to my own research.

Are you part of any extracurricular projects?

Yes, I sit on the advisory board of Listen to Act – an Imperial-led project that aims to improve mental health services in West London. I got involved in the project through my previous volunteering position with Young Healthwatch Hillingdon – an organisation that advocates for health and social care services.

My role with Listen to Act is to review relevant research that will support the advancement of mental health services in West London, which are currently underfunded and underserved. We recently won a Patient and Public Involvement and Engagement Award for our work.

How did it feel to be recognised for your work?

Really proud. Our board is comprised of young people with different backgrounds and experiences, which provides great diversity of thought. We work hard to plug the knowledge gaps in mental health research, in the hope that we can bring positive change to local communities.



health services

in West London.

Bursary recipient and

Isra Sulevani is part

of an award-winning

transforming mental

project at Imperial

Medicine undergraduate



Moving the field of psychedelic research forward

With the support of philanthropy, Imperial's groundbreaking Centre for Psychedelic Research is revolutionising the treatment of mental health care and addiction.



"This mainstream recognition [we're receiving] is an exciting and critical step towards psychedelic therapy becoming more accessible." Dr David Erritzoe n 2024, Imperial's Centre for Psychedelic Research celebrated its fifth anniversary. The world's first centre for psychedelic research, it has established a key role for itself in the field of psychedelics, particularly in the space of mental health care. In the short time since its launch, it has been credited with reopening and invigorating the field of psychedelic therapy to treat depression, after 50 years of inactivity, shining a light on promising new treatment options for patients.

Dr David Erritzoe, Clinical Director at the Centre for Psychedelic Research, says: "Early stage clinical research has shown that when delivered safely and professionally, psychedelic therapy holds great promise for treating mental health conditions.

"The results from our clinical trial into psilocybin (the active ingredient in magic mushrooms) as a treatment for depression have been met with great interest from regulatory authorities and industry around the world, and have led to large-scale trials using similar methods."

The Centre's work, together with subsequent trials run by other groups and companies, has directly influenced regulatory bodies' decision making – in 2023, Australian regulators approved the prescription of psilocybin-assisted therapy for treatment-resistant depression. "This mainstream recognition is an exciting and critical step towards psychedelic therapy becoming more accessible," says David.

Investigating the brain effects of psychedelics

The Centre is also pioneering breakthrough neuroimaging research, using a range of brain imaging techniques to investigate brain activity before, during and after administration of the psychedelic compounds.

"Our focus is on understanding the use of different mechanisms in the brain to assess not just whether psychedelics work, but also how they work and how they might work differently from other established conventional treatment methods," explains David.

"In one study, we developed a machine-learning approach to analyse brain activity data, looking at how the brain's resting-state connectivity could predict the severity of depression symptoms. We focused on patients with treatment-resistant depression who were given psilocybin, and found that certain brain networks could predict how well patients would respond to psilocybin treatment."

Philanthropy has played an important role in the Centre's early success, providing researchers like Dr Erritzoe much-needed freedom and support at a stage during which formal grants would not be accessible.

<image>

"Grants are often very rigid in their parameters and, typically, academics interested in psychedelic research don't have the ability to create their own trials and ask their own questions," explains David. "We received philanthropic support that didn't come with such restrictions, which gave us the freedom to explore.

"Because we've been able to run trials and gather data over a period of years, we're now in a position where our track record provides a strong case for securing government grants to continue our work."

Using psychedelic therapy to treat addiction

The Centre is now expanding its research into other areas of mental health care, including addiction. It's currently undertaking a large-scale trial studying the effectiveness of psilocybin in preventing recovering opiate addicts from relapsing.

Anne Rossignol is a public and patient involvement representative who has been appointed by Imperial to represent the views and interests of the public and patients in this new trial.

"I'm the bridge between researchers and the public and patients," says Anne, who herself is in recovery and has closely followed the clinical use of psychedelic therapy for years. "One of my first jobs was to recruit a panel of ex-opiate users to meet with researchers, so they could ask one another questions and the researchers could establish boundaries for the trial, which will expose participants to triggers."

Every single aspect of the clinical trial is scrutinised, and Anne meets regularly with a panel of clinicians to share her thoughts.

"I love interacting with the professionals and getting an insight into the medical aspects of addiction I was not aware of," says Anne. "Seeing the thought that goes into building a clinical trial is eye opening. Not least because this trial is looking to address such a serious problem.

"The opiate crisis is having a severe impact on countries around the world, including the UK. Waiting lists for treatment centres are terribly long and a solution is needed. I think it's fantastic that Imperial is putting resources into addressing this by exploring how psychedelics can help improve the rate of addiction recovery, and I'm excited to see what comes out of this trial."

Above: Dr David Erritzoe and a colleague carrying out clinical research with a patient





"I love interacting with the professionals and getting an insight into the medical aspects of addiction I was not aware of."

Anne Rossignol

The value of volunteering

Thank you to all our alumni volunteers who give their time and talents to support our students, and who contribute to our thriving global alumni community. Between 2023 and 2024, over 1,000 of you supported us in areas such as student mentoring, peerto-peer support, international recruitment and committee placements. As a volunteer, you have the opportunity to learn new skills, create memorable experiences and build meaningful connections.

Below, we hear from three alumni on why they've chosen to give back to Imperial and the benefits of volunteering.



1,200

skills and experience across a range of activities and programmes

90+

events were organised with the help of alumni groups in 2023–24

13,200

"I've chosen to give back to Imperial by acting as the Vice President of the Imperial Alumni Association of Greece. In this role, I organise events for Greek alumni, creating a space where we can reconnect, share our journeys and continue to feel part of the Imperial family.

Volunteering has been one of the most rewarding aspects of my postgraduate life and my return to Greece. As well as giving back, it's about staying connected to a place that shaped who I am today. It's also an enriching way to stay involved with the Imperial community. The most memorable moments have been those where I see our network grow stronger and alumni finding like-minded people in Greece, which makes their return easier."

Sofia Skevofylaka MSc Innovation, Entrepreneurship and Management 2020 **"I joined the Northern California Alumni** Association in 1987 when I first arrived in the San Francisco Bay Area. **Everyone I met was** extremely kind and helpful. They gave me a sense of belonging in this strange world called **Silicon Valley. Over the** years, I've worked in various capacities for the Association, including as President. I currently organise events to promote social interactions among members. I also invite alumni from other UK universities to join our activities.

It's easy to network professionally in Silicon Valley, but not as easy to network socially. When people meet at the happy hours I organise, the comradery is relaxed and genuine. I feel good when I see my effort to build a community working. I believe in giving back to society and being able to help Imperial makes me happy."

Ella Shum BSc Computing 1981

If you're interested in volunteering or would like to find out more, please contact: alumnivolunteering@imperial.ac.uk

"The mentorship scheme has opened my eves towards life after graduation and the environmental industry. I am so much more aware than at the beginning of the scheme and I feel better equipped at navigating the world of work after hearing my mentor's advice and experiences - they have been extremely motivating and encouraging!"

Dhruva Mahimtura 3rd Year Student, Chemistry with a Year in Industry

Get in touch

We hope you enjoyed the stories in this year's *Impact of Giving Report*. If you would like to share your story with us, speak to someone about supporting Imperial or learn more about any of the projects mentioned, please contact us at giving@imperial.ac.uk.

Donors giving in 2023–24

We're delighted to celebrate the generosity of those who gave to Imperial during 2023–24, through our online donor list. Scan the QR code to see all those who supported us in this period.



imperial.ac.uk/giving/donor-roll



