



Queen Mary
University of London

A truly global University



qmul.ac.uk/global

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Welcome

I am delighted to be able to introduce you to Queen Mary University of London, one of the UK's leading research-focused universities.

With over 32,000 students, almost 5,400 members of staff, and an annual turnover of £680 million, Queen Mary is a major, global institution. By bringing together people from across the world through our research and education, we are opening doors of opportunity.



Inclusion is at the heart of our mission: we are proud to recruit students and staff from over 170 countries, and from a wide variety of backgrounds. We are a member of the UK's Russell Group of leading research-intensive universities. Based in the heart of London's East End, and with a history dating back to 1785, we teach and research across a wide range of subjects in the humanities and social sciences, medicine and dentistry, and science and engineering.

Queen Mary has been ranked 14th in the world and 5th in the UK for research quality in the Times Higher Education (THE) World University rankings in 2024. Across the University, 92% of Queen Mary's research has been assessed as internationally excellent or world-leading according to the Research Excellence Framework (REF) results.

The quality and rigour of academic enquiry at Queen Mary speaks for itself, and there are exciting examples of our world-leading research right across our three Faculties and specialist multi-disciplinary institutes.

Our campuses are welcoming, diverse spaces that enable students, staff and the local community to work with and learn from one another. We are immensely proud of the University's role in creating opportunity for student groups typically under-represented at elite institutions:

- 92% of our UK undergraduate students attended a state school education.
- 49% are the first in their family to attend higher education.

- We were recently ranked as the best University in the country for social mobility by the Institute for Fiscal Studies in partnership with the Sutton Trust and the Department for Education.
- We continue to be recognised for our work around social mobility - receiving the University of the Year award at the Social Mobility Awards in 2022.

Our 2030 Strategy aims to build on this even further, committing us to be the most inclusive University of our kind anywhere in the world.

I am immensely proud of Queen Mary, our unique characteristics, and our extraordinary success, so much of which stems from partnership: whether at the global, national or local level.

We have partnerships with **286** institutions in **45** countries from around the world. These collaborations do many things. They:

- Bring academics together around research interests.
- Allow students from our partners to come to London and study at Queen Mary for part of their undergraduate degree, or as masters or Doctoral students.
- Provide our own students with the opportunity to gain invaluable experience abroad.
- Make Queen Mary and our local area a truly diverse and inclusive environment.

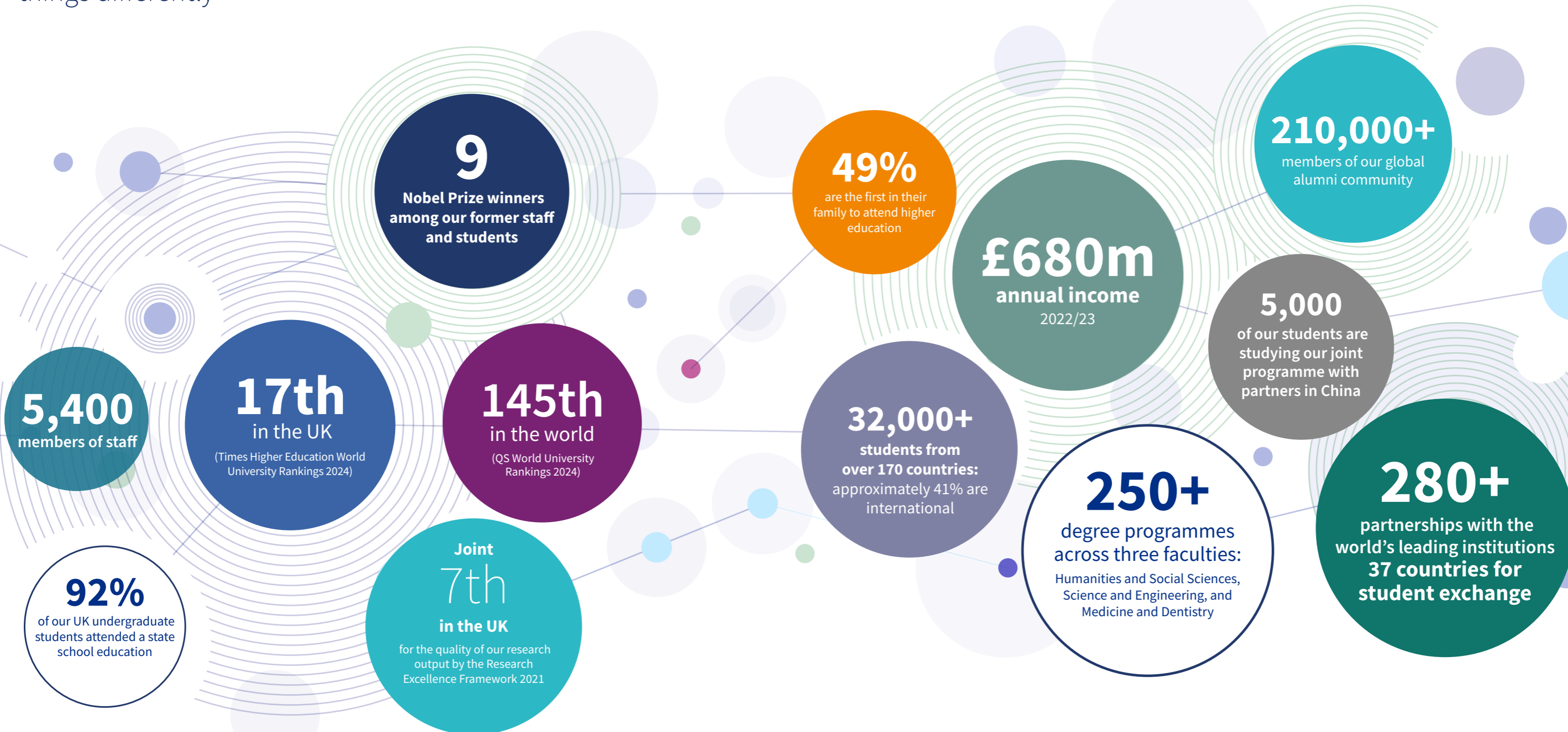
For me this is the magic of Queen Mary. That is why collaboration with our global partners is vital to the next phase of development and expansion for our University, and we look forward to working with colleagues from around the world to create outstanding education, research and innovation through long-term partnership.

We have nine campuses across east and central London and our site at Mile End is home to the largest residential campus in central London. Our vibrant and diverse student community is part of London's dynamic East End, famed for its rich history and thriving cultural scene. We are close to the social hubs of Shoreditch and Brick Lane, the financial centres of Canary Wharf and the City, and Stratford too – home to the Queen Elizabeth Olympic Park.

Every year, our graduates go on to exciting careers both here in the UK and overseas. Whether they go on to further study, research, start their own business or travel, a degree from Queen Mary will provide the opportunities and experience needed to shape a bright and global-minded future.

Professor Colin Bailey
President and Principal

By bringing together people from across the world through our research and education, we are doing things differently



Read more facts and figures about Queen Mary
qmul.ac.uk/facts-and-figures

Global university, global opportunities



I have been able to experience life in a new city, meet wonderful people and study in a renowned university. The learning environment at Queen Mary has been exceptional with the support of the staff and fellow researchers."

Fildah Ayaa, Uganda

Incoming research exchange student with the School of Engineering and Materials Science from Makerere University



Welcoming students from across the world

Queen Mary welcomes students from over 170 countries, making us one of the most diverse institutions in the world. Our global team are responsible for their journey – from enquiry through to registration. This includes guidance on degree choices, the admissions process, UK visa and immigration advice, and tips on life in the UK.

The team is based in London, supported by regional representatives in India, Pakistan, China, Malaysia and the United States. Each year, Queen Mary staff travel to many countries around the world to meet with students and parents, represent the institution at education exhibitions and deliver presentations and workshops to school and University

partners. We also manage a large global network of education representatives who offer additional support to Queen Mary applicants through a series of hybrid engagements.

If you would like our staff to visit your campus, organisation or area please email: globalengagement@qmul.ac.uk

Creating opportunities for global student mobility

The Global Engagement Office promotes and manages programmes for Queen Mary students and staff to study, work and travel overseas. They provide pastoral support for students who come to study at Queen Mary for a period of time, including via reciprocal arrangements with our global partners.

Exchange Programmes

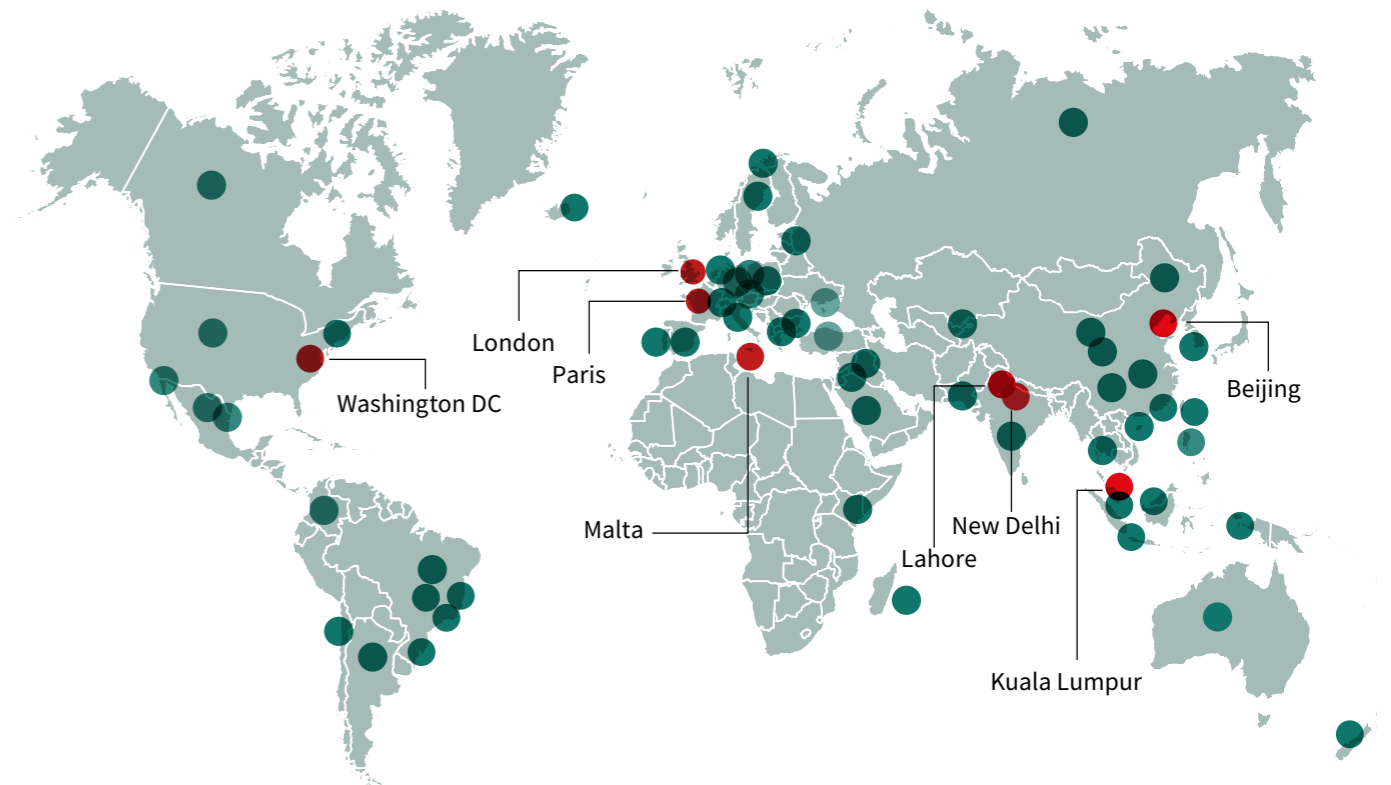
Queen Mary has undergraduate exchange partnerships with universities in 35 countries. Our exchange programmes give overseas students opportunities to attend Queen Mary for a semester or a year, and for our own students to spend time at one of our overseas partner institutions through reciprocal, no-tuition fee exchanges.

To increase student mobility, we seek to partner with institutions worldwide to add to our existing European and International Exchange Programme partners.

Study Abroad Programme

Queen Mary has one of the largest Study Abroad Programmes in the UK. We're a popular destination for students who

By working with partners across the globe, we're able to welcome international students and give our students a truly global experience



Queen Mary education partnerships across the world including overseas offices and our campuses in Paris and Malta.

wish to enrol directly as part of their overseas degree, outside of a no-fee reciprocal exchange. In 2023/24, over 800 students from across the world joined Queen Mary on our Study Abroad programme to spend a semester or a year with us, taking modules across all our Schools and Institutes with on and off accommodation options available.

Summer School

Our Summer School programme features a broad range of courses, put together by our world-class academics in a variety of disciplines. You can specialise according to your interests, knowing that each session will be thought-provoking, challenging and exciting in equal measure. Through our Summer School, we welcome students from our partner institutions

for intensive three to six-week blocks of study with us on campus during one of the best times of year to be in London.

Available for credit, our Summer School courses span the themes of Medicine, Film and Culture, Business and Management, Law, Politics, Science and Technology and are combined with an extensive social programme designed to help students make the most of their summer in London.



Find out more about our global work: qmul.ac.uk/global



It was an unforgettable experience, enriching both intellectually and personally!"

Axelle, France
Introduction to International Law course



Global partnerships for excellence in teaching and research

Our international partnerships are vital to achieving the University's strategic aims in both education and research. Engaging with top global institutions, we develop sustainable collaborations and are actively working with more than 250 institutions across the world. We use different models of collaboration to support our global partnerships, including:

- **Collaborative research:** building networks and alliances for joint research.
- **Co-operative programmes:** developing dual degree programmes with partner institutions.
- **Joint programmes:** developing jointly designed, taught, accredited programmes that are delivered outside the UK.
- **Joint Education Initiatives:** our current joint programme partners in China are Beijing University of Posts and Telecommunications (BUPT), Nanchang University and Northwestern Polytechnic University. In September 2022 our new Joint Education Initiative in Hainan Education Zone, formed in partnership with BUPT, enrolled its first cohort of students. Incremental growth will see the total number of students grow to 1,200 in the next five years.
- **Co-funding agreements:** establishing co-funded scholarships in collaboration with national funding bodies, and private institutions, to support international students.
- **Study abroad and exchange:** providing mobility opportunities for students and staff in London and with our partners.

We have an exciting network of key global partners where we have an enhanced association. This enables us to build equitable and strategic partnerships across our academic disciplines – recent initiatives have included pump-priming funds which connect academics to develop and deliver projects that address key global challenges across the spectrum.

Transnational education programmes

Our transnational education programmes (or TNE programmes) are a source of pride in our international work, with each of our three Faculties involved.

TNE programmes allow us to deliver our world-class education to students in countries outside of the UK through a mixture of local delivery partnerships, distance learning, faculty travelling to locations to deliver block teaching, and in some examples, through a permanent physical presence abroad in the form of a campus.

We were one of the first universities to pioneer this type of engagement in 2004 when we began working with Beijing University of Posts and Telecommunications (BUPT). In 2024 we celebrate 20 years of this partnership with BUPT and have graduated over 10,000 students from this programme in that time. To date we have six TNE programmes with a collective enrolment of over 5,600 students in 2023/24:

- **Beijing University of Posts and Telecommunications, China**
Established in 2004, we jointly deliver BSc degrees in Telecommunications, E-Commerce Law and the Internet of Things.
- **Nanchang University, China**
Established in 2013, we jointly deliver a BSc Biomedical Science/Clinical Biomedicine degree.
- **Northwestern Polytechnic University, China**
Established in 2017, we jointly deliver a BEng Materials Science and Engineering and a BEng Polymer Materials Science and Engineering degree.
- **Queen Mary Hainan School, China**
Established in 2022, we jointly deliver BSc degrees in Electronic Information Engineering and Intelligent Science and Technology.
- **Queen Mary, Malta Campus**
Established in 2019, we deliver an MBBS programme on the island of Gozo, Malta.
- **Queen Mary in Paris, France**
Since 2013, we have been delivering our world leading commercial LLM programmes at the University of London Institute in Paris.

If you have an interest in finding out more about our TNE activities please contact international-partnerships@qmul.ac.uk



What was particularly amazing at Queen Mary was the diversity in our classroom – I studied with students from literally all around the world, and they brought their own experiences of public policy practice to the classroom.”

Maha Kamal
Pakistan (International Public Policy MSc, 2016)



A global alumni community connecting the Queen Mary family

We have a vibrant global community of over 210,000 former students. Our alumni support the University by creating opportunities for philanthropy and partnerships, by enhancing the student experience through mentoring and advice, and by raising awareness of Queen Mary around the world.

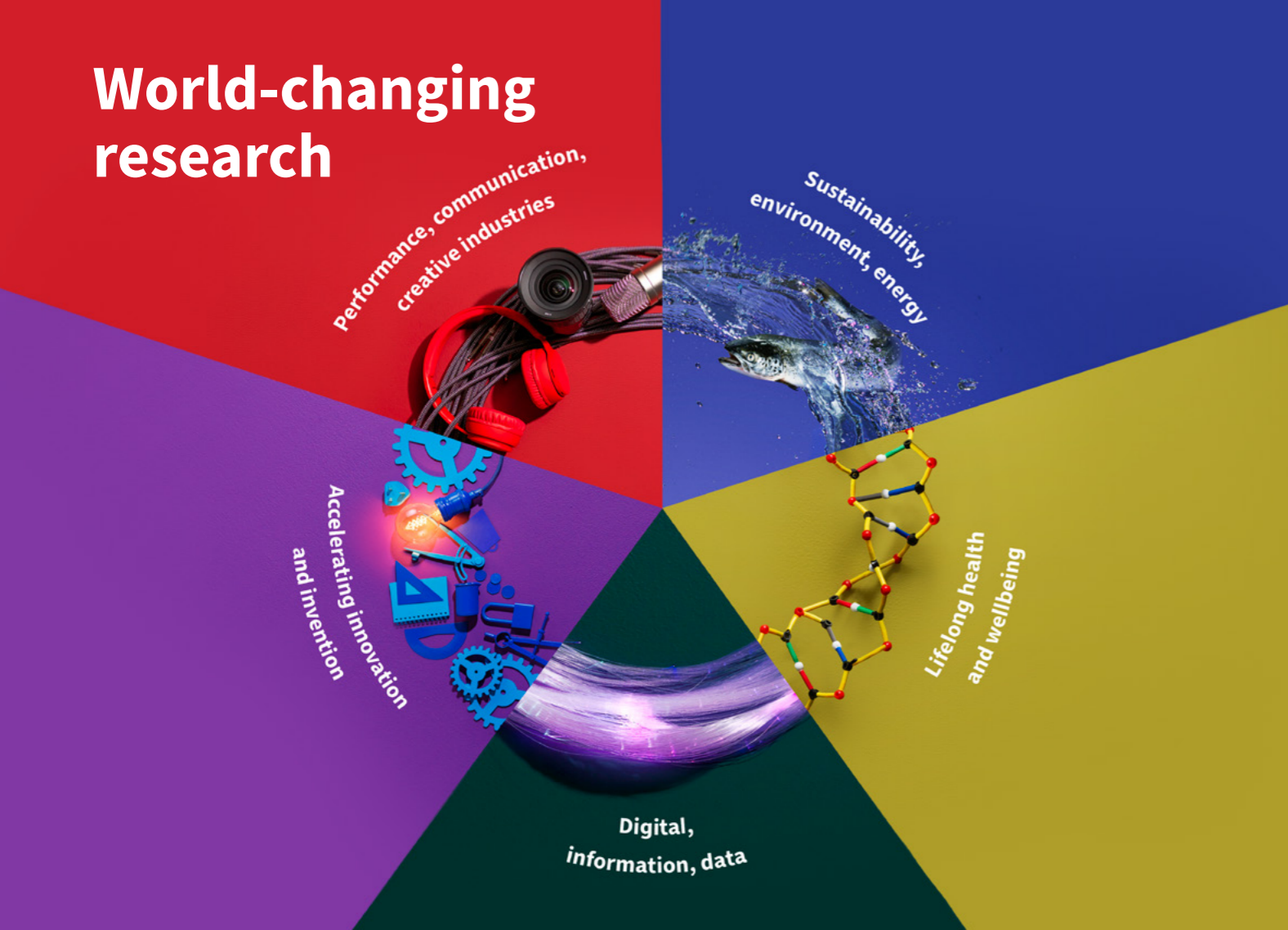
Our former students are leaders, creators, educators and innovators. They work in every imaginable field across the globe.

We provide our graduates with a lifelong connection to the University and to each other, wherever they are based, to share experiences and expertise, and to inspire and offer encouragement to current students, prospective students and fellow alumni.

Get in touch:

If you are interested in collaborating with Queen Mary, or would like to learn more about the work of the Global Engagement team, please do get in touch globalengagement@qmul.ac.uk

World-changing research



Queen Mary's ethos as a leading, research-intensive University is built on a simple belief: by embracing diversity of thought, opinion and ideas, we can achieve the previously unthinkable and take the world to new places.

Our Research Highways bring this ethos to life. By combining expertise across disciplines, five pioneering research themes have been identified that address global challenges and engage the best researchers from across our University.

Our Research Highway themes are:

- 1) Performance, communication, creative industries.
- 2) Sustainability, environment, energy.
- 3) Digital, information, data.
- 4) Accelerating innovation and invention.
- 5) Lifelong health and well-being.

The Research Excellence Framework (REF) 2021 exercise confirmed that Queen Mary is one of the UK's top research-intensive universities, with 92% of our research assessed as internationally excellent or world-leading.

Our academics work closely with industry, government, business, communities and charities to increase the reach and impact of their work. The outcomes of our research are felt around the world and inform our teaching.

We are host to around 50 specialist research centres or institutes, many of which have major interdisciplinary features drawing on our strengths across the disciplines.

International research collaboration brings with it an increased capacity to confront difficult problems with innovative solutions.

We encourage our research community to collaborate internationally by providing targeted support to strategic international partnerships.

In addition to University support, our researchers draw from a range of prestigious funding sources to enable their international collaborations.

These sources include the European Union's Horizon Europe fund, the Newton Fund, the Rutherford Fund, the Bill and Melinda Gates Foundation and the Wellcome Trust.

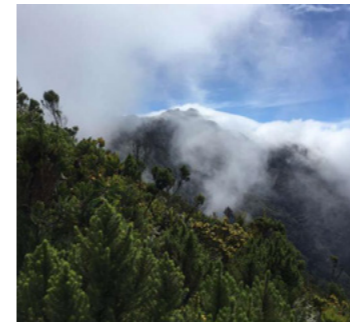


Being a researcher at Queen Mary has provided me with a collaborative and inspiring research environment. It is through Queen Mary's networks and partnerships that I've been able to build many contacts that have hugely influenced my own research."

Franziska Arnold-Dwyer,
School of Law



Queen Mary research is making an impact around the world



Tanzania

Research by Dr Chris Faulkes, Reader in Evolutionary Ecology, into evolution and biodiversity led to the discovery of two new mole-rat species in Tanzania. This research also led to the creation of a new nature reserve, bringing protection and sustainable tourism to the area.



Greece

Dr Sevasti Foka, Senior Lecturer in Psychology and Director of Graduate Employment and Opportunities, identified an urgent need for mental health interventions for refugee children. She identified this when working as a volunteer counsellor in refugee camps. She developed "Strengths for the Journey" with co-researchers, a positive psychology-based intervention that has been delivered to children across numerous refugee camps in Greece.



Pacific Islands

The economies of many developing countries, particularly the Pacific Islands, rely on the fishing trade and fishers form a part of the global value chains. Professor Liam Campling's research has focused on making sure that these chains offer the fairest and most sustainable deals for all concerned.



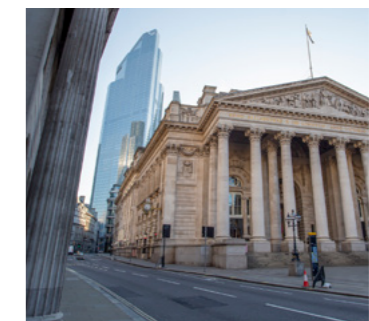
Cabo Verde

The Eizaguirre Lab at Queen Mary created the Turtle Project in collaboration with conservation NGOs, the University of Cabo Verde and the National Institute of the Sea. The project is built as a citizen-science research programme that supports the development of conservation programmes, engages in capacity building of local biologists and informs local and national authorities in the management of natural resources.



Brazil

Professor Paul Heritage, Professor of Drama and Performance and Artistic Director of People's Palace Projects, works to link arts practitioners and policymakers with groups including indigenous peoples, inhabitants of Rio de Janeiro's favelas, and prisoners. His theatre-based work with Brazil's prisons has reached tens of thousands of prisoners, guards and their families.



Global

The research work of Professor Rosa María Lastra, the Sir John Lubbock Chair in Banking Law, fills critical gaps in international financial law and addresses cross-border issues. Lastra contributed to the design of international financial soft law, acted as Technical Assistance Advisor to the International Monetary Fund, and her Central Banking and Banking Regulation was referred to in a brief to the US.



An aerial view of London's iconic Tower Bridge with the River Thames flowing towards Canary Wharf in the east

Queen Mary's global outlook goes hand-in-hand with our East London roots. From our vibrant corner of a world city, with Canary Wharf, Tech City and a host of creative enterprises on our doorstep, we are in a unique position to foster partnerships and enhance our students' university experience.

Queen Mary Innovation

Queen Mary Innovation, our tech transfer company, work closely with Queen Mary academics to build their inventions into successful businesses, or license them to others, including global charities, SMEs and multinational companies, who can take the technology forwards. Queen Mary achieved the top category for commercialisation and intellectual property in Research England's Knowledge Exchange Framework.

Queen Mary Innovation connect businesses with exciting investment opportunities, coach academics in how to understand the market for their ideas and find talented Chief Executives who can lead our spinout companies on to future growth. We use the proceeds from Queen Mary Innovation's activities to encourage innovation and help create the next generation of entrepreneurs.

Our international successes include:

- LandR Audio, a Queen Mary spin-out company headquartered in Montreal, Canada, brings the power of AI and machine learning to audio production. It

was recognised in 2019 as one of the world's most innovative companies in music. Since launching in 2014 LandR have helped millions of musicians all around the world as well as major labels such as the Warner and Disney music groups.

- BioMin Technologies Ltd was established in 2014 to commercialise research to develop halide containing bioactive glass materials to reduce tooth sensitivity, replace lost mineral from tooth surfaces and protect against tooth decay. A winner of the Worshipful Company of Armourers and Brasiers' Venture Prize for innovation, BioMin has a global supply chain with its products available across the world.
- DragonflyAI is a marketing tool built on an algorithm developed by scientists at Queen Mary over a decade ago. Since then, this visual analytics platform has helped global consumer brands like Harrod's, GSK, Mitsubishi, Mars, and Jaguar Landrover to predict, analyse, and influence people's attention and stand out from the competition.



Global Policy Impact: Queen Mary Global Policy Institute

The mission of the Global Policy Institute is to ensure that our Strategy 2030 commitment to inclusion, diversity and positive social change find its application in real-world policy and social impact.

The Global Policy Institute takes Queen Mary's world-class research and helps to translate this expertise into tangible outcomes by addressing key global problems across a range of policy areas (from global health to technology, and from housing to human mobility).

The Global Policy Institute recently worked with Cornell University on our transnational migration workshop – which was held at Queen Mary's Malta campus on the island of Gozo. The two-day workshop developed collaboration between the two universities on their shared research interest: transnational migration.

We share our knowledge and expertise through a programme of bespoke training and short courses that has in the past encompassed intellectual property, anti-corruption, mental health support, and specialist health disciplines. Courses can be tailored and adapted across the full spectrum of Queen Mary's academic expertise, according to the needs of our partners, who include:

- World Health Organisation.
- The Oswaldo Cruz Foundation, Brazil.
- Somerville College, Oxford, UK.
- Leuven Centre for Global Governance Studies, KU Leuven, Belgium.
- Universidade Federal de Minas Gerais, Belo Horizonte, Brazil.
- Centre for Policy Studies, Indian Institute of Technology, India.

Queen Mary delivered training for a delegation of senior healthcare professionals from the Government of Punjab, Pakistan. Working in partnership with our Global Public Health Unit, the Executive Education team built a tailored academic programme focusing on specific areas of Global Public Health. The delegates attended face-to-face seminars, took part in interactive workshops, went on field trips, and drafted and critically assessed policy documents. Queen Mary also offered pastoral support to the Punjab Resource Management and Policy Unit delegation, providing concierge-level service throughout their visit.



Above: The Global Policy Institute held its inaugural Annual Meeting on 14 September 2022, bringing members of the Institute's community together for the first time.

Get in touch

If you would like to learn more about our work, or discuss commissioning specialist research, Global Policy Institute consultancy, short courses or other forms of training, please get in touch: qmgpi@qmul.ac.uk



To visit the Queen Mary Global Policy Institute website, scan the QR code or go to qmul.ac.uk/gpi

The Global Policy Institute, the Oswaldo Cruz Foundation (FioCruz) and Fundação Getúlio Vargas (FGV) pledged a total of £150,000 to create the Brazil Accelerator Fund II to provide seed funding for the development of scalable

research collaboration between the three organisations and other Brazilian institutions. Ten successful projects have been awarded up to £7,000 from each institution, with maximum funding of £21,000 per project.

Faculty of Humanities and Social Sciences



In the Faculty of Humanities and Social Sciences we are focused on what it is to be human, the complexity of life and culture, and on understanding the interaction of people with each other and the natural and physical world. We combine expertise across a range of disciplines and apply critical, creative and analytical thinking, as well as scientific and evidence-based approaches, to the big questions affecting us all. Public engagement, partnerships, cross-disciplinary collaboration, and the generation of research with broad and compelling public benefits are all central to our work.

Our academic schools work together effectively to generate excellent research, teaching and learning opportunities across the humanities and social sciences.

Altogether there are over 12,500 students across the Faculty.

Our Mile End Institute is a major policy centre bringing together academics, politicians, policymakers and the public to address the major issues of our time, while the Queen Mary Institute for the Humanities and Social Sciences brings together leading scholars from across the Faculty to share ideas, develop new research, and explore innovative approaches to these challenges. We also work very closely with the Global Policy Institute in its cutting-edge international policy work and impact.

Professor Daniel Todman
Deputy Vice Principal,
Faculty of Humanities and Social Sciences

Our research

The diversity of our ideas and outstanding research has a profound and meaningful impact on lives locally, nationally, and globally.

In the UK's most recent assessment of the quality of higher education research (REF 2021), the Faculty performed exceptionally well, with the vast majority of our outputs in the UK top 10.

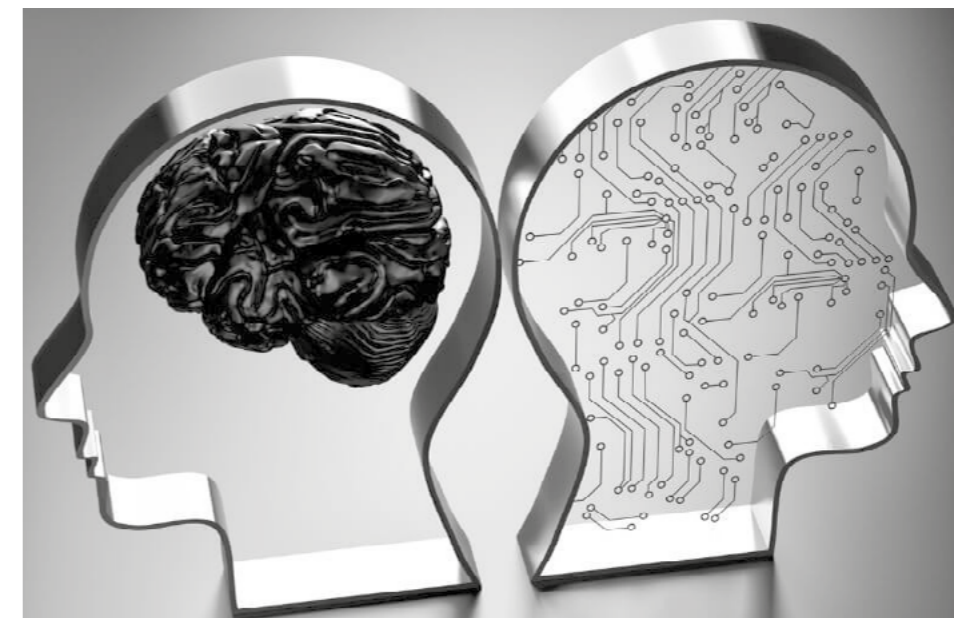
Drama ranked first in the UK, while History and Politics both ranked seventh and Economics ranked eighth. Film and Linguistics are each ranked first in the UK for their research impact, while Law is seventh and Geography tenth for their research outputs.

- A number of other research areas were assessed as having very high-quality research publications and impact: 50% of all English research outputs achieved the top rating (4* /world leading).
- Business and Management research climbed 17 points on the last REF in 2014.
- Modern Languages ranked excellent internationally and among the top 20 in the UK.

We have an impressive track record of attracting funding, including from the UKRI, the European Union, the Leverhulme Trust, the British Academy and Wellcome.

Together with Kings College London and Imperial College, we are part of the Economic and Social Research Council funded London Interdisciplinary Social Science Doctoral Training Partnership. The partnership fully funds around 60 studentships per year and enables social science research students to join and develop a research community formed in the interface between the social science disciplines with health and medicine, the natural and physical sciences, engineering, and the arts and humanities.

We are also part of the London Arts and Humanities Partnership alongside seven University partners and five core delivery partners: Museum of London; The National Archives; Google; the Victoria & Albert Museum; and the Wellcome Trust. The partnership supports doctoral students to become experts in their chosen fields and to develop vital skills, knowledge, and experience.



Living with Machines is a radical digital humanities collaboration between Queen Mary, The Alan Turing Institute, the British Library, and the Universities of Cambridge, East Anglia, Exeter, and King's College London that uses Artificial Intelligence to analyse historical sources.

impact of industrial revolution. The initiative is devising new methods of research and revolutionising the way historical sources are analysed.



Historians, data scientists, geographers, computational linguists, and curators are working together to examine the human

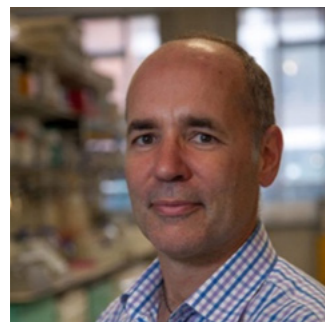
To find out more about the Living with Machines project, scan the QR code or go to livingwithmachines.ac.uk

Our Schools:

- School of Business and Management
- School of Economics and Finance
- School of English and Drama
- School of Geography
- School of History
- School of Languages, Linguistics and Film
- School of Law
- Centre for Commercial Law Studies
- School of Politics and International Relations

In 2023 we broke ground on the banks of the Regents Canal for what will be our new six story Business School, due to host its first intake in 2026.

Faculty of Medicine and Dentistry



In 1785, Sir William Blizard established England's first medical school, The London Hospital Medical College, to improve the health of East London's inhabitants. Together with St Bartholomew's Medical College, founded by John Abernethy in 1843 to help those living in the City of London, these two historic institutions are the bedrock of the Faculty of Medicine and Dentistry at Queen Mary University of London.

Today, Queen Mary's Faculty of Medicine and Dentistry continues to uphold this commitment to pioneering medical education and research, both in London and across the world, through a number of strategic partnerships.

Firmly embedded within our east London community, and attuned to the specific health needs of our diverse population, Queen Mary's Faculty of Medicine and Dentistry is truly distinctive. Our local community offers to us a window to the world, ensuring that our groundbreaking research in cancer, cardiovascular and inflammatory diseases, and population health not only dramatically improves the outcomes for patients in London, but also has a far-reaching global impact.

Professor Richard Grose
Dean (International),
Faculty of Medicine and Dentistry

Our research

Through partnership with our linked National Health Service (NHS) trusts, notably Barts Health NHS Trust, and our associated University Hospital Trusts, the Faculty's research and teaching is informed by an exceptionally wide-ranging and stimulating clinical environment.

In the latest QS World University Rankings, we were ranked top 20 in the world for research citations in Medicine and Dentistry, and also the top University in London for Dentistry according to The Guardian University Guide 2024.

Our research strengths are focused into four key themes: Cancer; Cardiovascular Medicine; Inflammation; and Population Health. To ensure that we are capturing the strengths across and between faculties, we have established multi-disciplinary approaches to address Crisis and Resilience; Environment and Health; and Lifelong Health.

The Faculty is internationally recognised for research in these areas, reflected in the £100 million it attracts annually in research income. Its fundamental mission, with its partner NHS Trusts and other partner organisations, such as Cancer Research UK and British Heart Foundation, is to ensure that the best possible clinical service is underpinned by the very latest developments in scientific and clinical teaching, training and research.

We have world-leading researchers throughout the Faculty, with Professors Irene Leigh, Fran Balkwill and Claudia Langenberg listed in the top 100 female scientists in the UK. Professor Tom Powles' transformative work on treating bladder cancer was recognised by Nature in 2023 as delivering one of their top ten developments of the year.



In 2022, a global outbreak of mpox began emerging. For the first time, clinicians were seeing cases outside regions where the disease is usually found, and this puzzled clinicians. Clinicians found it even more puzzling that they were seeing mpox cases at sexual health clinics, such as in Professor Chloe Orkin's clinic in East London. Professor Orkin noticed that mpox symptoms were presenting similarly to some sexually transmitted diseases, something she hadn't seen before, and that it was seemingly disproportionately affecting men who have sex with men.

Professor Orkin is a Professor of Infection and Inequities and Director of the SHARE Collaborative. When she noticed the cases of mpox, she reached out to colleagues across the world to see if they were noticing similar patterns. They formed an international group of clinicians,

called SHARE-net, and published the first-ever case series on mpox. They identified new clinical symptoms and their work led international public health bodies to change the clinical definition of mpox to include these new symptoms.

They also found the outbreak was disproportionately affecting men who have sex with men. Their research helped to focus the limited global supplies of mpox vaccines to people who need it the most, but also stressed the importance of engaging the community of men who have sex with men in responding to the mpox outbreak.

The SHARE Collaborative showed the world how to carry out sensitive, yet critical, research in a global health emergency while not exacerbating inequalities or isolating communities that already face stigma.

Institutes in the Faculty of Medicine and Dentistry:

- Barts Cancer Institute
- Blizard Institute
- Institute of Dentistry
- Institute of Health Sciences Education
- William Harvey Research Institute
- Wolfson Institute of Population Health

Faculty of Science and Engineering



Queen Mary has a long and distinguished tradition in science and engineering. The Faculty was a pioneer in establishing engineering, computer science, chemistry, and materials science departments, and we remain on the cutting edge of research with a focus on themes important for today and the future.

The Faculty of Science and Engineering consists of five schools with over 450 academic staff and 700 PhD students. Our researchers are supported by world-class virtual and physical research infrastructure with significant internal and external funding. Entrepreneurship, innovation and engagement are an embedded part of our research culture.

We are pursuing a strategy that jointly considers education and research to substantially extend our international reach.

We have well-established and prestigious transnational educational programmes that we have created with University partners in China, spanning multiple campuses. Elsewhere, and in particular in Latin America and Mexico, we have developed substantial partnerships providing research students to fuel our research.

The results of the recent REF in 2021 confirm the excellent research that Faculty of Science and Engineering academics are conducting, with Computer Science and Informatics and Engineering ranked within the top 10 in the UK. In addition, 97% of Science and Engineering research outputs were rated as internationally excellent or world leading.

Professor Alex Clark
Dean (International),
Faculty of Science and Engineering

Our research

Our distinctive, curiosity-driven research is recognised all over the world. In the most recent UK REF, 97% of Science and Engineering research output was rated at least internationally excellent, with almost half considered to be world-leading. We are amongst the top 10 institutions in the UK for Engineering (seventh in REF 2021) and Computer Science and Informatics (eighth in REF 2021).

We promote multi-disciplinary research and collaborations between our Schools, across our Queen Mary faculties, and with our industrial research partners across the globe.

Our six research themes bring together academic disciplines and foster new approaches to research and innovation. These include our activities in Materials Research, Bioengineering, Applied Data Science, and Life Sciences.

Our research initiatives

- **Environment, biodiversity and genomics** – research using technology, modelling and genomics to reduce environmental degradation and deliver biodiversity and sustainable habitats.
- **Social interaction, health and well-being** – research into the factors that influence behaviour and mental health and how humans adapt to changes.
- **Engineering better medicine** – bioscience and bioengineering, manufacture and pre-clinical testing of medtech, implants, diagnostics and therapeutics.
- **AI and data modelling** – data-centric engineering research using artificial intelligence, machine learning and big data to support the digital environment.
- **Green energy** – science and engineering to facilitate net-zero emissions through development of sustainable power generation, transmission and storage.
- **Fundamental discovery science** – we also undertake fundamental, discovery-led research in biology, chemistry, computer science, engineering, materials, mathematics and physics.

Queen Mary is a University partner of the Alan Turing Institute, working with the Institute's network of partners in industry and government to advance the world-changing potential of data science, and the faculty has a large number of Turing Fellows working across disciplines with all three faculties to push the boundaries of data science and AI.



Examples of our ground-breaking research in AI and computer science include pioneering digital twin cardiovascular research, which is personalising and improving the treatment of Atrial Fibrillation; using AI to build new musical instruments and develop the way we interact with them; and using social media and mathematical modelling to track and protect endangered species to name but a few.

Incredible advances in materials science can also be attributed to researchers in our faculty. Since the early 1990s research into the effect of the structure and chemistry of bone-graft substitute materials on the rate and quality of bone repair and regeneration has resulted in the clinical launch of two families of bone graft substitute materials. To date these materials have been used to treat over 500,000 patients globally and the engineering excellence involved in producing them was recognised in the 2019 British Engineering Stamp Issue celebrating seven key British engineering achievements of the last 50 years.

Our researchers have been revolutionising medical research and drug development using micro-engineered Organs-on-Chips. These chips contain tiny hollow channels lined by living cells that recreate the microenvironment that cells experience within the human body. They offer scientists a way to predict human responses with greater precision and detail than today's cell culture or animal-based testing, and can be used in a laboratory to test new drugs and therapies, predicting their efficacy in the human body.

Looking further afield, our researchers are building new, state-of-the-art simulations to study how planets are formed and evolve in different environments; working with partners on identifying signatures of plant-like photosynthesis as a potential indicator of extraterrestrial life; and collaborating with scientists from NASA to understand the first iconic images sent from the James Webb Space Telescope.

Schools in the Faculty of Science and Engineering:

- School of Biological and Behavioural Sciences
- School of Engineering and Materials Science
- School of Electronic Engineering and Computer Science
- School of Mathematical Sciences
- School of Physical and Chemical Sciences

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