

Imperial College  
London

# President's Address 2019

We are international





# We are international

Professor Alice P. Gast,  
President of Imperial College London  
City and Guilds Lecture Theatre, 13 March 2019



Welcome. Thank you for coming. It is always wonderful to gather to celebrate the excellence around us. As always, very many of our colleagues received exciting external awards. I hope that you enjoy reading about the amazing array of accolades in the programme, and that you will join us in the reception afterwards to celebrate these impressive colleagues.



## The President's Address

Each Spring the President delivers her annual Address to the College community and invited guests and we celebrate external accolades bestowed on Imperial staff, students and alumni.

In celebrating these colleagues, it is interesting to note that the people we acknowledge for their awards come from more than 25 countries.

This leads naturally into my theme this year: **we are international and we will stay that way.**

I'm sure many of you remember your first truly international experience. I vividly remember my first days in Europe. I was ill when I landed in Athens. I stopped at a pharmacy and was surprised to get a medication only available by prescription back home. Being an engineer helped me decipher the Greek alphabet. I made my way to the suburbs with an address written on a paper plate. Every so often, I'd ask someone for directions, showing them my plate. They warmly helped me; I understood the direction they pointed.

Friendly strangers pointing the way; it was a sort of early turn-by-turn navigation, long before Google Maps and Siri. I managed to find my group, and, before I knew it, I was staying with a widowed *yaya* on a Greek island,

studying Greek language and mythology. I found out that my shower was a cold water douse over the toilet operated by pulling a chain. My *yaya* served me "chamomilla" tea. I recovered, I learned some Greek and I also learned a tremendous amount about people and about myself.

After study in Greece, I took the Magic Bus to Austria and travelled around Europe by train. I went to Italy to see Rome and Florence. I went to Germany because of my family roots. I went to Spain because I had studied Spanish in school. I ended my travels in London, expecting to understand the language. The friendly waiter serving breakfast cautioned me to take a "brolly", as it was likely to be wet. The weather did not disappoint. It rained.

I became a different person that summer. My eyes, my mind and my heart were opened to the world.

One thing that struck me then, and has always resonated, is how much we have in common with people, no matter where we are from. We all care for family

and friends, and, sometimes, even for strangers asking for directions. We share the desire for a good future. We appreciate a thing of beauty, a flower, a sunset, an adorable child, a cat. We have a common curiosity about others and about faraway places.

We thrive when we explore.

## Hybrid vigour

Our similarities are complemented by our differences. Each of us have world views shaped by our families, our experiences, our schools and the local culture where we grew up. Spending my postdoctoral year in France opened my eyes to how these differences are beneficial when we work together. Sitting down to tackle a complex problem in condensed matter physics, I found my French colleagues taking a different approach from mine. While I was ready to dive into solving some differential equations, they sharpened their pencils, took a clean sheet of paper, framed the problem in an elegant and simple way, and evaluated what needed to be done. Our complementary strengths, when combined, augmented our work. We need not always agree with one another, in fact, sometimes the greatest discoveries come from disagreement.

Collaboration is important not only across disciplines, but also across cultures. It brings new insights, leads to new approaches and to new discoveries. I sometimes make the analogy between collaboration across cultures and the “hybrid vigour” or beneficial qualities that come from cross-breeding.

Many of you have experienced this hybrid vigour in your collaborations and in your own research groups. One need only to look at the award-winning work across Imperial to see the qualities our diverse community brings to us and to society.

Imperial is creating a new home for the School of Public Health at the White City Campus. It will be a state-of-the-art hub for health and wellbeing research, outstanding education and community engagement.



## We are truly international

Over the past decade, we have collectively collaborated with peers in 192 countries and more than half (56 per cent) of our research papers have had international co-authors. On our website you can find a wonderful map showing these collaborations. This is some 105,000 research papers. Almost two-thirds (63 per cent) of our corporate research support comes from collaborations with businesses outside the UK. Our students come from more than 130 countries.

Our diverse international research collaborations and our own international community produce breakthroughs benefiting us locally, regionally and throughout the world. Here are a few examples.

Recently, I had the privilege of hearing Professor Elio Riboli eloquently describe his work to a group of friends and supporters. Thanks to support by the European Union and the World Health Organization, Elio leads one of the largest cancer cohort studies in the world, following more than half a million participants from ten European countries for over 20 years. The European Prospective Investigation into Cancer and Nutrition, or EPIC, is showing that a diet based on fruit, vegetables, whole grains and moderate consumption of poultry and fish reduces risk of obesity, diabetes, cardiovascular disease and cancer. Our new School of Public Health in White City will bring this international approach to West London, where over 120 languages are spoken in communities having a variety of traditions, cultures and ethnic backgrounds.

Another multi-national group, Natural BionicS, led by Professor Dario Farina, combines his expertise in neural interfaces with experts in neurosurgery at the University of Vienna and robotic specialists at Italian Institute of Technology to take prosthetic technology into a new era. Funded by a European Research Council Synergy Grant, they are developing prosthetics that allow users to feel and command them as part of their body. The multidisciplinary and multicultural connections are literally helping us improve connections between the brain, spinal cord, and prosthetic limbs.

Professor Molly Stevens leads a global group of bioengineers, material scientists, chemists, surgeons and

biologists, from over 25 countries. They work with partners in the United States, South Africa and Australia to engineer human bone, liver and pancreas for autologous transplantation. Their different cultural and disciplinary perspectives have helped the Stevens Group transform the development of biosensors and brought bioengineering approaches to regenerative medicine.

Professor of Sustainable Chemical Technology, Jason Hallett loves how his multinational group “bring their personal history wherever they go”. New ideas, contacts and cultures, improve the whole group and enhance their work. He says: “By far the easiest way to cross-fertilise ideas is to hire people from other places, especially those with different research backgrounds.” Thanks, in part, to their group members, their vaccine work has made its way to India, Bangladesh, Vietnam and China.

Professor Hallett’s Swiss PhD student won a WEInnovate Prize for Chrysalix Technologies. Their BioFlex process transforms waste wood into material for fuel. When they couldn’t find the right hard wood in Europe, a fellow group member helped source it from China.

## Our immigrant heritage

Today, while the US is building a wall with Mexico, and the UK is likely departing from the EU, it is especially important to remember that immigration is an integral part of both countries’ history.

The UK has benefitted from waves of immigration throughout history from the earliest settlers through recent recruits. Shakespeare’s London was multicultural and multiracial, including many North and West Africans, as well as Europeans. The Huguenots came to Britain in the 17th and 18th century and brought with them many capabilities in science, banking, weaving and glass. Appropriately, our major partnership with CNRS of France is named after Abraham de Moivre, a Huguenot mathematician who came to England.

After two world wars immigration was essential to rebuilding the UK. Our infrastructure was built by people from Europe, the West Indies, India, Pakistan and Bangladesh. Today, this diversity is part of what makes the UK the success that it is.

The effect of immigration on Imperial has been just as profound over the years.

Decades before our 1907 founding, in 1845, Professor August Wilhelm Von Hofmann was recruited from Germany to be the first Director of the newly created Royal College of Chemistry by none other than Prince Albert himself. Hoffman made significant contributions to synthetic chemistry and he mentored exceptional students. One of his students, William Henry Perkin, discovered Mauveine and started the synthetic dye industry.

You could say that modern international collaboration was born in our neighbourhood. Prince Albert had the vision to open the 1851 Great Exhibition to the world. The possessions and innovations from more than 40 countries were represented in this first World’s Fair. Over four million people from around Britain and the world arrived in London, over 50 per cent more than the previous year. We are a legacy of the Great Exhibition and Imperial was international from its beginnings. By 1925, nearly a fifth of our students came from abroad.

Several of our Nobel laureates were foreign born. At the Dennis Gabor Lecture honouring our Hungarian Nobel laureate, we learned how his writing, research and his teaching influenced the world. Gabor moved to Imperial in 1958 and his pioneering development of holography was recognised with the Nobel Prize in Physics in 1971. Today, we are the first university to use holographic technology to connect our business school to people around the world. His phrase: “the future cannot be predicted, but futures can be invented” is just as apt today as when he wrote it in 1963.

Sir Ernst Chain came to the UK in 1933 and developed the unique “freeze drying” method to purify and concentrate penicillin. His 1945 Nobel Prize with Alexander Fleming and Howard Florey celebrated the discovery and production of penicillin. Coming to Imperial in 1961, Chain founded and chaired our Department of Biochemistry and helped make the Wolfson Laboratories one of the leading research centres in the field.

## Our international alumni and students are innovators and entrepreneurs

This international flow of talent has always gone both ways. Many early 20th century Imperial students, such as Herbert Wright, moved abroad to conduct research into rubber in Ceylon and Malaya. His important and lucrative inventions propelled the emerging rubber industry

In the late 1930s, Hiru Patel undertook the long journey on foot, by plane and boat from India to London, where he began study in Mechanical Engineering. His PhD thesis in Aeronautics developed our understanding of “flutter”, the unstable oscillation on the wing of an aircraft during flight. He returned to India as a proud alumnus and became a pioneer in the plastics industry. In 2016, thanks to his family’s generosity, we celebrated the Dr Hiralal N. Patel Wind Tunnel and we gave him a new copy of his PhD thesis, still relevant 75 years after it was published.



Malav Sanghavi developed LifeCradle, a neonatal incubator made from cardboard, when he was studying for an MSc in Innovation Design Engineering at Imperial.

## Risk takers

I often hear people talking about the successes of the Silicon Valley or the Boston area. What is the key to success in these areas? One element is that American entrepreneurs are working side by side with, or often led by, foreign-born talent.

43 per cent of Fortune 500 companies were started by immigrants and their children, and 20 per cent of the world's tech founders are immigrants, even though immigrants only make up about four percent of the world's population. If we are serious about achieving the UK Industrial Strategy and eager to develop new enterprises in the UK, our new immigration system must be welcoming to international talent.

At MIT I did an informal study of our patent data and found that foreign students filed more patents than their domestic counterparts. This entrepreneurial strength is shared by foreign staff and students here at Imperial where they are also more likely to file patents than their UK peers. In our Enterprise Lab for student entrepreneurs, 70 per cent of the participants are foreign students. European students are twice as likely than others at Imperial to become student entrepreneurs.

On a recent visit to our White City Incubator, I talked to the founders of

CustoMem who are making adsorbent materials to rid water of chemical pollutants. They have rapidly grown to ten employees; one of them was born in the UK. Our WEInnovate awards last week showcased five finalist female entrepreneurs with amazing pitches. They and their teams came from 11 countries.

Why is this the case? Why are immigrants overrepresented as entrepreneurs, as tech founders, as corporate leaders? I have always thought that students who travel far away from home are already risk takers. They are immersed in a culture that is different from theirs and they take in new ideas rapidly and readily.

We have such risk takers at Imperial. International innovators are improving lives, creating jobs and making the world a better place. Some have stayed in London.

Like Hiru Patel eighty years earlier, Malav Sanghavi came to Imperial from India and now he is saving lives. Working in the Dyson School, Malav set out to solve a problem in neonatal survival in his home country. He founded LifeCradle to create a neonatal incubator that is 90 per cent less expensive than existing incubators and can be used as a cot when incubation is no longer needed. Malav is a serial entrepreneur now running two businesses in London.

One day we need not worry about being hit by an autonomous vehicle if our alumnus from the Netherlands has his way. Leslie Nooteboom is staying in London to develop Humanising Autonomy to help autonomous vehicles better predict human behaviour such as jay-walking pedestrians.

There are many more such examples and we need to craft our immigration policies to encourage more of them to stay.

There are also many who leave London and the UK. They take with them their formative experiences at Imperial and they remain global citizens, and they improve the world around them. You can see this in the thriving entrepreneurial community in Shenzhen where many of the entrepreneurs you meet are Imperial alumni. From wineries in Western Australia, to tech startups in California, our alumni are talented, innovative, and entrepreneurial. We need to stay connected and ensure that they have opportunities to come back.

## Academics are among the best diplomats

There is a long history of scientists working across borders, even during times of conflict. The Royal Society of London appointed its first foreign secretary in 1723, long before the British government did. CERN was established in 1954 and played an important role in rebuilding relationships that had been divided by the war. Likewise, SESAME, a synchrotron for the Middle East, modelled on and supported by CERN, opened in 2017. SESAME won

the AAAS Award for Science Diplomacy this year. In addition to supporting research in environment and health, SESAME will foster peace and international collaboration.

The reality of science diplomacy or, more broadly, academic diplomacy is that academics can and will work across political and cultural differences. In 2010, I was privileged to be named US Science Envoy to Central Asia and the Caucasus. Wherever I travelled, I was warmly welcomed by the scientists, academics, community members and fellow university leaders I met. I will never forget the young people who came to my "chai chat" in Tashkent with impressive questions and exciting ideas.

Science diplomacy needs nurturing. I have been asked by the Minister for Universities, Science, Research and Innovation to chair the Newton Prize Committee. I am pleased to help with this important mission to recognise excellent science, research and innovation in support of economic development and social welfare in Newton Fund partner countries.

A network of respect and collegiality connects universities, laboratories, and research groups. It is true that, through our common search for discovery and our common language, academics and scientists can indeed be diplomats.

I believe that this is still true today and is more important than ever. I am proud that Imperial is making international engagement a high priority. We have new and growing collaborations in Africa, Asia and the Middle East, and are augmenting and strengthening our collaborations in Europe and the Americas.

## What does the future hold? What can we do?

The operative word of the day is uncertainty. We have unclear futures before us. We see shifting policies and politics across the world. We must not, and will not, let the uncertainties of these times distract us from the important work before us.

Our international engagements make us stronger and we will continue to build them. We will not relent in our quest to keep our doors open to students, collaborations and colleagues from around the world.

In terms of the immediate issues of Brexit, we are witnessing unprecedented political turmoil. We must lift EU research collaborations out of politics.

If there can be side deals for fisheries there can be agreements for research collaborations and student and staff mobility.

In my view, these agreements should apply in two primary areas: (1) mobility of our colleagues and students, and (2) fostering and supporting our collaborations across the world.

## Mobility

In order for academics and scientists to be excellent entrepreneurs, collaborators and diplomats, they need the ability to work together across borders. We must be ambitious in liberating mobility for academics and students. A 2017 poll showed that 86 per cent of the British public want to increase or maintain levels of migration of scientists and researchers.

We must seize this sentiment, as we design a new post-Brexit immigration system. I applaud the new two-year Startup Visa. Extending the duration of the Graduate Entrepreneur visa is long overdue and is a welcome step towards our shared goal of making the UK a haven for entrepreneurs. Just this afternoon, the Chancellor announced PhD level roles would be exempt from visa caps and that overseas research activity will count towards residence when applying for settlement in the UK. These are positive steps for science and research.

But we can, and we must, be bolder. Here are three ideas:

- 1. Invite and welcome exceptional talent.** Create a single Tier 1 visa for exceptional researchers, PhD students and graduate entrepreneurs. A single route for all academic and entrepreneurial talent, and removing number caps for all, would serve as a clarion call to make the UK a beacon for talent.
- 2. Make it easier for talented immigrants.**
  - Liberate visa sponsorship to allow trusted university employers to sponsor talented staff;
  - grant automatic visa sponsorship to all recipients of major

international research funding such as the Wellcome Trust, Gates Foundation and ERC;

- allow the visa to follow the researcher so that they can move from one sponsor to another; and,
- lower salary thresholds for Tier 2 skilled migrant visas for talented staff like our technicians.

## 3. Benefit from graduates' talent.

Post-study work visas for all undergraduates and postgraduates, with a duration of two years for STEM graduates, will help meet the UK's £1.5 billion skills shortage. It will future-proof businesses as they adapt to a rapidly changing global economy where STEM skills are increasingly vital. This would put us on a level playing field with competitors like the US.

## Supporting collaboration

We will continue to establish partnerships and collaborations in Europe and throughout the world. We call upon government to expand opportunities to support international students and scholars and to foster and fund international collaborations.

Finally, we will vigorously defend our right to collaborate with international partners. Apart from national security concerns or government restrictions, we will work with others who share our commitment to furthering research, education and science diplomacy, no matter where they are from, no matter what their current government has done, and no matter what others are accusing them of.

We are international. Our international community, our collaborations, our partnerships, and our own experiences in other cultures and places have an immeasurable and profound effect on the world.

We have a great heritage of mixing people, views, ideas and cultures to create wonderful discoveries and insights.

We must ensure that such mixing continues for our benefit, and for the benefit of society.

**Professor Alice P. Gast  
13 March 2019**

# External awards and accolades

We take great pride in the many members of Imperial's academic and alumni community who received external awards and accolades during the past year.

In celebration, we here present their names and a brief description of their achievements. The number and variety of awards reflects the breadth of talent and expertise at Imperial, which helps us to deliver our mission of excellence in research and education for societal benefit.

## Roma Agrawal

Associate Director at AECOM and author of 'Built'; MSc Civil and Environmental Engineering 2005  
MBE for services to engineering

## Olivia Ahn

Co-Founder and CMO, Polipop; Medicine 2017  
Winner of the 2018 Mayor of London's Entrepreneur competition for WithLula, a startup developing fully flushable and biodegradable sanitary products

## Professor Neil Alford

Associate Provost (Academic Planning)  
Awarded the 2018 Platinum Medal by the Institute of Materials, Minerals and Mining

## Emanga Alobwede

Research Technician, Life Sciences  
Winner of the EIT Food Global Venture Programme and EIT Food Entrepreneurship Prize for Bio-F Solutions, securing €35,000 of funding to progress their business. Bio-F also won the EIT People's Choice Award

## Professor Jane Apperley

Chair of the Department of Haematology, Medicine  
Appointed a NIHR Senior Investigator

## Professor David Rueda

Chair of Molecular and Cellular Medicine, Medicine  
Awarded a Wellcome Trust Collaborative Award in Science with partners for research into the mechanics and execution of homologous recombination

## Professor Deborah Ashby

Director, School of Public Health  
Selected as a panel member for the 2021 Research Excellence Framework

## Dr Sonya Babu-Narayan

Clinical Senior Lecturer ACHD, National Heart and Lung Institute  
Appointed Associate Medical Director of The British Heart Foundation

## Professor Barbara Bain

Professor of Diagnostic Haematology, Medicine  
Winner of the EHA Education and Mentoring Award from the European Hematology Association for outstanding efforts towards educating and mentoring haematologists worldwide

## Dr Artem Bakulin

Research Fellow (Royal Society URF), Chemistry  
Received the Marlow Award from the Royal Society for Chemistry, in recognition of the most meritorious contributions to physical chemistry or chemical physics. Also received the R.A. Robinson Lectureship Bursary to lecture in either Singapore, Malaysia, Australia or New Zealand

## Abigael Bamgboye

Undergraduate student, Materials  
Named Target Jobs Female Undergraduate of the Year 2018

## Professor Dr Julian Bion

Medicine 1975  
OBE for services to intensive care medicine

## Dr Mattias Björnmalm

Marie Skłodowska-Curie Individual Fellow, Materials  
Represented the Royal Society of Chemistry at the Voice of the Future event at the Houses of Parliament

## Dr Henrietta Bowden-Jones

Honorary Clinical Senior Lecturer, Faculty of Medicine Centre; MD Neuroscience and Mental Health 2005  
OBE for services to addiction treatment and research

## Dr Adrian Bowyer

Mechanical Engineering 1997  
MBE for services to 3D Printing

## Professor Michael Bronstein

Chair in Machine Learning and Pattern Recognition, Computing  
Elected a Fellow of IEEE

## Professor Anthony Bull

Head of the Department of Bioengineering; Mechanical Engineering 1992, PhD 1995  
Elected to the World Council of Biomechanics

## Dr Francesca Ceroni

Lecturer, Chemical Engineering  
Shortlisted for the L'Oréal-UNESCO Fellowship for Women in Science

## Dr Clementine Chambon

Research Assistant (EPSRC Doctoral Prize Fellowship), Chemical Engineering; PhD Chemical Engineering 2017  
Named *Chemistry World* Entrepreneur of the Year by the Royal Society for Chemistry and shortlisted for the L'Oréal-UNESCO Fellowship for Women in Science

## Professor Lionel Clarke

Co-chair, UK Synthetic Biology Leadership Council, and Director, BionerG; Physics 1974  
OBE for services to the synthetic biology sector

## Naomi Climer

Chemistry with Management 1986  
CBE for services to the engineering profession

## Professor Emeritus Christopher Collier

Former Head of Strategic Partnerships, National Centre for Atmospheric Science; Physics 1968  
MBE for services to atmospheric science

## Professor Richard Craster

Professor of Applied Mathematics, Mathematics  
Selected as a panel member for the 2021 Research Excellence Framework

## Dr Jim Crawley

Reader in Haematology, Medicine  
Elected the 2018 President of the British Society for Haemostasis and Thrombosis

## Laura de Arroyo Garcia

Research Postgraduate, Life Sciences  
Winner of the EIT Food Global Venture Programme and EIT Food Entrepreneurship Prize for Bio-F Solutions, securing €35,000 of funding to progress their business. Bio-F also won the EIT People's Choice Award

## Yves-Alexandre de Montjoye

Head of the Computational Privacy Group; Lecturer, Computing and Data Science Institute  
Appointed as a Special Adviser to the EU Competition Commissioner Margrethe Vestager

## Dr Claudia de Rham

Professor in Theoretical Physics, Physics  
Joint recipient of the Adams Prize, awarded by the University of Cambridge Faculty of Mathematics and St John's College to UK-based researchers under the age of 40

## Professor Michele Dougherty

Head of Department; Professor of Space Physics, Physics  
Awarded the Richard Glazebrook Medal and Prize by the Institute of Physics for scientific leadership of the Cassini magnetic field instrument at Saturn and the European Space Agency (ESA) JUICE study team

## Professor Sir Leslie Ebdon

Former Director of Office for Fair Access to Higher Education; Chemistry 1968, PhD 1971  
Knighted for services to higher education and social mobility

## Professor Paul Elliot

Chair in Epidemiology and Public Health Medicine, School of Public Health  
Selected as Chair of Sub Panel 2: Public Health, Health Services and Primary Care for the 2021 Research Excellence Framework

## Dr A. Aldo Faisal

Reader in Neurotechnology, Bioengineering and Computing  
Received \$50,000 through the Mobility Unlimited Challenge Discovery Award, funded by the Toyota Mobility Foundation to develop human-in-the-loop AI for rehabilitation engineering

## Professor Dario Farina

Chair in Neurorehabilitation Engineering, Bioengineering  
Awarded a £10 million ERC Synergy Grant

## Professor Alan Fenwick

Emeritus Professor, School of Public Health  
Winner of the Dominique Kyelem Annual Prize for lifetime achievement in the field of neglected tropical diseases

## Professor Jorge Ferrer

Chair in Medicine and Genetics, Medicine  
Awarded a €2.2 million Advanced Grant from the ERC for research into expanding the genetic etiological and diagnostic spectrum of monogenic diabetes mellitus

## Christina Friis Blach Petersen

CEO & co-founder, LYS Technologies Ltd; MSc Innovation Design Engineering 2016  
Featured in the *MIT Technology Review* Innovators Under 35 list 2018

## Professor Amparo Galindo

Professor of Physical Chemistry, Chemical Engineering  
Named as Imperial's Lilly/Royal Academy of Engineering Research Chair in Pharmaceutical Molecular Systems

## Shaaz Ghouse

Research Assistant, Mechanical Engineering  
Joint winner of the 2018 Excellence in Translational Science Award from the *Journal of Orthopaedic Research*

## Professor Tim Green

Co-Director of the Energy Futures Laboratory  
Elected to the Fellowship of the Royal Academy of Engineering

## Professor Robin Grimes

Professor of Materials Physics, Materials  
Elected a Fellow of the Royal Society and awarded the Luis Federico Leloir Medal for International Cooperation in Science, Technology, and Innovation from the Argentinian Ministry of Science, Technology and Innovation

## Inty Gronneberg

Research Postgraduate, Dyson School of Design Engineering  
Named Latin American Inventor of the year by *MIT Technology Review*

## Dr Nir Grossman

Lecturer in Dementia Research, Medicine  
Awarded the 2018 Science & PINS Prize for Neuromodulation

## Professor Angelika Grundling

Professor of Molecular Microbiology, Medicine  
Recipient of a £1.4 million Wellcome Trust Investigator Award

## Professor Yi-Ke Guo

Director, Data Science Institute; Professor of Computing Science, Computing  
Elected to the Fellowship of the Royal Academy of Engineering

## Professor Martin Hairer

Chair in Probability and Stochastic Analysis, Mathematics  
Selected as a panel member for the 2021 Research Excellence Framework

## Professor Jonathan Haskel

Chair in Economics, Imperial College Business School  
CBE for public services to economics

## David Havelock

Former Director of Credit Risk Group, UK Export Finance, Department for International Trade; Physics 1968  
CBE for services to the economy

## Scott Heath

Work Package Manager, Thales; Chemistry with Management 2011  
BEM for services to the LGBT community

## Professor Elaine Holmes

Professor of Chemical Biology, Surgery and Cancer  
Elected a Fellow of the Academy of Medical Sciences

## Professor Alison Holmes

Professor of Infectious Diseases, Medicine  
Appointed a NIHR Senior Investigator

## Dr Gustav Holzegel

Professor of Pure Mathematics, Mathematics  
Joint recipient of the Adams Prize, awarded by the University of Cambridge Faculty of Mathematics and St John's College to UK-based researchers under the age of 40

## Dr Jonathan Jeffers

Reader in Mechanical Engineering, Mechanical Engineering  
Joint winner of the 2018 Excellence in Translational Science Award from the *Journal of Orthopaedic Research*

## Dr Kim Jelfs

Senior Lecturer (Royal Society URF), Chemistry  
Awarded the Harrison-Meldola Prize by the Royal Society of Chemistry for an innovative approach to the computer-guided discovery of supramolecular and porous materials

## Professor Sebastian Johnson

*Asthma UK Clinical Chair; Director, Asthma UK Centre in Allergic Mechanisms of Asthma, National Heart and Lung Institute*  
Awarded a €2.4 million ERC Advanced Grant for research into mechanisms of adverse effects of beta-agonists in asthma

## Gavin Jones

*Head of Income, Finance*

Gained accreditation by Chartered Institute of Credit Management for Imperial. Imperial is the first higher education institution to achieve this award

## Dr Patrik Jones

*Reader in Metabolic Engineering, Life Sciences*  
Winner of the EIT Food Global Venture Programme and EIT Food Entrepreneurship Prize for Bio-F Solutions, securing €35,000 of funding to progress their business. Bio-F also won the EIT People’s Choice Award

## Dr Sridevi Kalidindi

*Medicine 1992*  
OBE for services to rehabilitation psychiatry

## Aaron Koshy

*Co-Founder, WithLula; MSc Innovation Design Engineering 2017*  
Winner of the 2018 Mayor of London’s Entrepreneur competition for WithLula, a startup developing fully flushable and biodegradable sanitary products

## Dr Sonia Kumar

*Director of Undergraduate Primary Care Education, School of Public Health*  
Winner of the AdvanceHE Collaborative Award for Teaching Excellence (CATE)

## Sarah Kwok Yan Ho

*Research Postgraduate, Chemistry*  
Awarded £7,500 by the Stevenson Fund to support postgraduate research

## Professor Andrew Livingston

*Professor of Chemical Engineering, Chemical Engineering*  
Awarded a €2.4 million ERC grant for research into advanced nanomembranes for exact polymer production

## Rainbow Lo

*Research Postgraduate, Chemistry*  
Awarded £7,500 by the Stevenson Fund to support postgraduate research

## Dr Cristina Lo Celso

*Reader in Stem Cell Biology, Life Sciences*  
Awarded the Royal Microscopical Society Medal for Life Sciences for outstanding scientific achievements applying microscopy in the field of cell biology

## Professor Nicholas Long

*The Sir Edward Frankland BP Chair in Inorganic Chemistry, Chemistry*  
Selected as a panel member for the 2021 Research Excellence Framework and recipient of a Royal Society Wolfson Research Merit Award

## Professor John Loughhead

*Chief Scientific Advisor, Department for Business, Energy and Industrial Strategy; Mechanical Engineering 1970*  
CB for services to research and development in the energy sector

## Professor Michael Lowe

*Professor in Mechanical Engineering, Mechanical Engineering*  
Winner of the 2018 NDE (Nondestructive Evaluation) Lifetime Achievement Award of the International Society for Optics and Photonics

## Professor Geoffrey Maitland

*Professor of Energy Engineering, Chemical Engineering*  
CBE for services to chemical engineering and supporting connections between industry and academia

## Professor Kathryn Maitland

*Professor of Tropical Paediatric Infectious Diseases, Medicine*  
Received a Wellcome Collaborative Award in Science for a consortium for research and trials into severe malaria in Africa and awarded cofunding from EDCTP for COAST: Nutrition Childrens Oxygen Administration Strategies Trial. Also received an overseas programme award from the Wellcome Trust of £1.5 million

## Professor Ricardo Martinez-Botas

*Professor of Turbomachinery, Mechanical Engineering*  
Elected to the Fellowship of the Royal Academy of Engineering

## Enrica Mazzon

*Research Postgraduate, Mathematics*  
Awarded £7,500 by the Stevenson Fund to support postgraduate research

## Professor Julie McCann

*Professor of Computer Systems, Computing*  
Winner of the Suffrage Science Award

## Professor Dame Angela McLean

*PhD 1986*  
DBE for services to mathematical biology and scientific advice for government

## Professor Irene Miguel-Aliaga

*Professor of Genetics and Physiology, Institute of Clinical Sciences*  
Awarded a £1.9 million ERC grant for research into sex differences in intestinal plasticity

## Piers Milner

*Research Postgraduate, Mechanical Engineering*  
Joint winner of the 2018 Excellence in Translational Science Award from the *Journal of Orthopaedic Research*

## Luciana Miu

*Research Postgraduate, Chemical Engineering*  
Winner of the second Annual Wiley Women in Research Travel Grant competition

## Professor David Nutt

*The Edmond J. Safra Chair in Neuropsychopharmacology, Medicine*  
Awarded Wellcome Trust funding for Tools for Human Neuroscience Drug Research (THuNDR)

## Dr Nuria Oliva-Jorge

*Research Associate, Bioengineering*  
Shortlisted for the L’Oréal-UNESCO Fellowship For Women in Science and awarded the TECNIOspring PLUS Fellowship, within the Marie Skłodowska-Curie Action (Horizon 2020) and ACCIÓ funding (Generalitat de Catalunya)

## Dr Faii Ong

*CEO, GyroGear; MBBS 2016*  
Awarded €1.86 million from the Horizon 2020 programme to develop the GyroGlove, a novel device invented to stabilise hand tremors which affect 200 million people globally who suffer from Parkinson’s disease and essential tremor

## Dr Pavel Orlov

*Research Associate, Computing*  
Received \$50,000 through the Mobility Unlimited Challenge Discovery Award, funded by Toyota Mobility Foundation and run by Nesta’s Challenge Prize Centre, to further develop an AI wheelchair with the Brain and Behaviour Lab

## Professor Maja Pantic

*Professor of Affective and Behavioural Computing, Computing*  
Selected as a panel member for the 2021 Research Excellence Framework

## Dhruv Patel

*Computing 2004*  
OBE for voluntary service to the British Hindu community and social cohesion

## Dr Giorgio Perin

*Research Associate, Life Sciences*  
Winner of the EIT Food Global Venture Programme and EIT Food Entrepreneurship Prize for Bio-F Solutions, securing €35,000 of funding to progress their business. Bio-F also won the EIT People’s Choice Award

## Professor Nelson Phillips

*Abu Dhabi Chamber Chair in Innovation and Strategy, Imperial College Business School*  
Winner of the Joanne Martin Trailblazer Award from the Organization and Management Theory Division of the Academy of Management

## Dr Lorenzo Picinali

*Senior Lecturer, Dyson School of Design Engineering*  
Coordinator of the 3D Tune-In project, which won the Healthcare Science Partnering Patients and Citizens award at NHS England’s CSO Healthcare Science Awards

## Professor Matthew Pickering

*Professor of Rheumatology and Wellcome Trust Senior Fellow in Clinical Science, Medicine*  
Awarded a Wellcome Trust Senior Clinical Fellowship for the third time

## Professor Iain Colin Prentice

*Chair in Biosphere and Climate Impacts, Life Sciences*  
Elected a fellow of the Royal Society and awarded a €2.4 million ERC grant for research into re-inventing ecosystem and land-surface models

## Professor Carol Propper

*Associate Dean of Faculty and Research, Chair in Economics, Imperial College Business School*  
Elected an International Fellow of the National Academy of Medicine and awarded a €1.4 million ERC grant for research into the impact of the labour market on the production of healthcare and health

## Ian Prosser

*HM Chief Inspector of Railways and Director, Railway Safety, Office for Rail and Road; BEng in Chemical Engineering*  
CBE for services to railway safety

## Jona Ramadan

*Research Postgraduate, Chemical Engineering*  
Awarded an SCI Scholarship of £5,000 over two years to support PhD studies in the Department of Chemical Engineering

## Dr Anna Regoutz

*Imperial College Research Fellow, Materials*  
Winner of a Student Academic Choice Award for Best Teaching for Undergraduates

## Professor Guillermo Rein

*Professor of Fire Science, Mechanical Engineering*  
Winner of the 2018 Arthur B. Guise Medal from the Society of Fire Protection Engineers (SFPE) Foundation in recognition of eminent achievements in the advancement of science and technology of fire protection engineering

## Robert Rouse

*MSc/MA Innovation Design Engineering 2017*  
Winner of the Worshipful Company of Engineers’ Hawley Award for Engineering Innovation for Remora, a design for marine turbines and ship thrusters that filter and extract plastic as they operate

## Professor Guy Rutter

*Chair in Cell Biology and Head of Cell Biology, Medicine*  
Successfully renewed a £1.7 million Wellcome Trust Investigator Award

## Professor Mary Ryan

*Vice-Dean (Research), Faculty of Engineering*  
Selected as a panel member for the 2021 Research Excellence Framework

## Professor David Sharp

*Professor of Neurology, Medicine*  
Successfully applied to lead a programme in care research and technology under the UK Dementia Research Institute

## Professor Molly Stevens

*Professor of Biomedical Materials and Regenerative Medicine, Materials and Research Director for Biomedical Material Sciences, Institute of Biomedical Engineering*  
Appointed Trustee of the National Gallery. Also awarded the Rosalind Franklin Medal and Prize by the Institute of Physics for contributions to ground-breaking and influential advances in the engineering of bioinspired materials for regenerative medicine and biosensing applications

## Dr Ileana Stigliani

*Associate Professor of Design and Innovation, Imperial College Business School*  
Named among the world’s top 40 business academics under the age of 40 by Poets & Quants

## Alan Stoyel

*DIC 1961*  
OBE for services to water mill heritage

## Professor Adrian Sutton

*Professor of Nanotechnology, Physics*  
Awarded the David Tabor Medal and Prize by the Institute of Physics for definitive contributions to the nanophysics of interfaces and dislocation elastodynamics

## Dr Paolo Taticchi

*Principal Teaching Fellow, Imperial College Business School*  
Appointed Knight of the Order of Merit of the Italian Republic and named among the world’s top 40 business academics under the age of 40 by Poets & Quants

## Professor Jonathan Valabhji

*Consultant Diabetologist and Professor of Practice (Diabetes), Imperial College Healthcare NHS Trust; National Clinical Director for Diabetes and Obesity, NHS England*  
OBE for services to diabetes and obesity care

## Marine Valton

*Research postgraduate and Research Assistant, Life Sciences*  
Winner of the EIT Food Global Venture Programme and EIT Food Entrepreneurship Prize for Bio-F Solutions, securing €35,000 of funding to progress their business. Bio-F also won the EIT People’s Choice Award

## Dr Richard Jan van Arkel

*Lecturer, Mechanical Engineering*  
Joint winner of the 2018 Excellence in Translational Science Award from the *Journal of Orthopaedic Research*

## Professor Luc Vandeperre

*Professor of Structural Ceramics, Materials*  
Winner of a Student Academic Choice Award for Best Feedback

## Dr Jess Wade

*Research Associate, Physics*  
Awarded the Daphne Jackson Medal and Prize by the Institute of Physics for acting as an internationally-recognised ambassador for STEM. Also named as one of ‘ten people who mattered this year’ by the journal *Nature*

## Shiqi Wang

*Research Postgraduate, Chemical Engineering*  
Winner of the Chinese government award for outstanding self-finance students abroad in recognition of academic excellence

## Dr Nigel Watson

*Medicine 1982*  
MBE for services to general practice

## Professor Laurence Williams

*Senior Research Investigator, Centre for Nuclear Engineering, Department of Materials*  
OBE for services to nuclear safety and radioactive waste management

## Dr Gokhan Yildirim

*Assistant Professor of Marketing, Imperial College Business School*  
Awarded the 2018 Gary L. Lilien Practice Prize by the INFORMS Society for Marketing Science

## Professor Xiaodong Zhang

*Professor of Macromolecular Structure and Function, Medicine*  
Received a Wellcome Trust Investigator Award to research into structures, recruitment and regulation of DNA damage response

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