

Imperial College
London



President's Address 2021

Universities
at a crossroads



Welcome to the President's Address 2021.



Professor Alice P. Gast
President of Imperial College London

In this extraordinary time after enduring such a profoundly sad and painful year, it is more important than ever to celebrate the great accomplishments that make us all proud of our community. Six years ago we started the tradition of using the President's Address as an opportunity to gather to pay tribute to our staff, students and alumni who have received external awards over the past year. While we cannot gather in person, we can still be buoyed by the wonderful people and the accolades they have so greatly deserved.

Our colleagues inspire us with their devotion to excellence, their dedication to helping others and their support of our community. Their efforts evoke pride by their families, their friends, their colleagues and to the College.

You will see brief descriptions of their achievements in this programme. As you read it, I think that you will be as impressed as I am by the many ways they have used their time and talents for the benefit of society.

Please join me in congratulating these brilliant colleagues. Their actions embody the excellence, values and societal impact Imperial College London is known for. We look forward to the opportunity to celebrate in person in the future.

I also thank all members of the Imperial community who contribute in numerous ways in their professional and personal lives to make the world a better place.



Universities at a crossroads

Professor Alice P. Gast,
President of Imperial College London

2 June 2021

The President's Address

Each year 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 light of the continuing COVID-19 restrictions, this year's address was broadcast digitally.

Some years ago, in a crowded steamy hotpot restaurant in Shanghai, I watched the young people around us take pictures of their meal and receive gratifying pings as friends "liked" what they saw.

I reflected on the practice of giving thanks before a meal. Perhaps now, for some, God is in the Cloud awaiting our adoring photos of what we eat!

I found myself amused by this idea until I realised that if I went on a run without my phone to "log" my workout, I felt it didn't count. Clearly my coach in the Cloud needed to see evidence of my movement for it to be real. Maybe I too was reliant on approbation from a phone.

During the past year we have been blessed, and cursed, by spending vast amounts of time online, working, connecting, documenting. Our screen time has increased dramatically. We know this from those unwelcome reports of the hours we have stared at our computers, phones and tablets.

We've connected with friends and colleagues far and wide. We've Zoomed, FaceTimed, and reached into homes of family members we long to see, friends we have wanted to get back in touch with, colleagues who are hard to see in person at any time but are easy to find pinned to their computer.

Our reliance on technology has been growing for years, but it has accelerated during the pandemic. Things will never be the same again.

It has been a profoundly sad, exhausting and trying year. Our hearts go out to those who have suffered the tragic effects of the pandemic. Both physically and mentally, COVID-19 has taken its toll on all of us.

Yet amidst the loss and sadness there are also things that lifted our spirits and for which we are thankful. The incredible efforts of people across the country and throughout the world inspire our gratitude. [The response to the pandemic](#) by the scientific community, including our own, alongside the tireless efforts by the NHS deserve repeated recognition.

It has been an unprecedented year with tremendous innovation. So many of you helped others to find new ways to learn, new ways to teach, new ways to pursue research, new ways to care for our students, and new ways to keep the university running. And it is running well. You have written more papers and more proposals than in years past. You have gotten a lot done. You've worked from home and at the front lines.

We can be proud of the accomplishments we made in the face of daunting challenges.

Today, as is our tradition, we celebrate the external accolades earned by our colleagues. There is much to celebrate despite the many hardships of the past year.





Professor Sanjeev Gupta is among the Imperial academics assisting the NASA Perseverance mission on Mars. Professor Gupta is helping oversee mission operations from a science and engineering point of view, helping decide where the rover will go and what it will sample.

Universities are at a crossroads

The history of universities is long and rich. Most were founded to “create a community of scholars” who could share their insights and discoveries, and to “create an educated workforce or society”.

In recent times these founding principles have been influenced by two accelerating driving forces: enhanced technological capability and vastly easier international mobility.

New technologies affect just about everything we do today, and they have enhanced scientific discovery. Just a few decades ago, we could not have imagined our ability to sequence mutations in a virus with such speed, to see the Higgs-Boson, to visualise single molecules, or to drive around on the surface of Mars. Science has been hugely accelerated by new computing, imaging and sequencing abilities. And the acceleration continues with the further expansion of data storage and computational power.

The dramatic increase in international mobility has been the other dominant driving force influencing universities.

The marketplace of ideas and learning creates opportunities for people from around the world. The value-added of English language education has propelled the US and the UK to the forefront of global higher education. Students from around the world aspire to study here.

This has been an extraordinary period of rapid change for universities like ours and there are many competitive challenges ahead. Here are three:

1. We have educated the next generation of scholars who are able to teach in new or expanded universities in their home countries, in English if desired.
2. Technology can bring learning to where you are; the need to spend the time in a residential university may become less compelling than in the past.
3. We are in a period of competing national interests that favours nationalism over globalism.

We know that we cannot simply return to the way we were before. I firmly believe that there will still be a strong need for the very best education with the top scholars in the world. We can prevail if we can change.

Universities are at a crossroads and only by remaining open to new people, new technological innovations and new ideas will we succeed.

What is our opportunity at Imperial?

We have a lot going for us at Imperial and we can build upon our strengths:

We have **top talent** in science, engineering, medicine and business

We know how to **work together** across these disciplines

We pursue **world leading discovery research**

We **collaborate** better than most

We have exercised our use of **technology in education**

We have people in our community eager to **think broadly**

We have opportunities in our **estate and our spaces** to do things differently

We must build upon these strengths by having audacious goals and facing the realities of our strengths and weaknesses – what the organizational guru Jim Collins calls ‘facing the brutal facts’.

Here are four brutal facts and audacious goals and investments to help us face them:

1. Our talented community lacks diversity

Like other universities, we are missing contributions from large segments of the population. We must diversify our community, at all levels, from students to Council members. We must be more ethnically diverse, gender balanced, and internationally diverse. Increasing diversity will strengthen and enrich our community. It will make us more competitive.

We must start with our students. I am proud of our work to improve opportunities for students who have the intellectual

ability but lack the economic capacity, confidence, or support systems they need to attend university. [The Wohl Reach Out Lab](#), [the Invention Rooms](#), [maths homework clubs](#), [edX Courses for Maths and Further Maths A-levels](#) and our [new maths school](#) will all help students succeed in their path to, and through, university. Yet we need to do more within our university as well.

I am announcing a £10 million challenge fund to ignite support for scholarships and fellowships over the next five years.

Half of this, £5 million, will support prestigious scholarships and fellowships for talented underrepresented students.

This will include black students, other underrepresented students and students whose socioeconomic backgrounds are barriers to university attendance.

We know that by providing this support, supplemented by philanthropic donations, we can improve our recruitment and retention of students we historically have not attracted.

Many of our friends and alumni are eager to help. I invite them to use this moment to join with us to make a difference. We have seen the power of their support. One example is the generous donation from the Olanrewaju brothers to support [scholarships for black undergraduate students](#) of exceptional academic merit in Engineering and a gift to begin establishing a new endowed scholarship.

The other £5 million of the challenge fund will provide matching funds to support scholarships and fellowships for international students. We have many generous alumni and friends around the world who wish to help students from their home country to attend Imperial. Often, they can support part of the cost of an international fellowship or scholarship. This matching funding will allow us to accept these donations and support talented students from around the world.

We already have wonderful examples of generous donors making a difference around the world. Scholarships from the Amjad & Suha Bseisu Foundation provide pivotal support to students from the Levant and Malaysia, and the Lee family has supported vital scholarships for students across the College.

We are also privileged to be among the universities hosting the [Beacon Scholarship](#), a leadership development programme that nurtures ‘change-makers’ among young, gifted students with leadership potential from Kenya, Uganda, Tanzania and Zambia.

The government clearly has a role to play. Our newly awarded [British Council Scholarships for Women in STEM](#), are bringing women from South America into some of our MRes and MSc programmes, and we welcome many outstanding Chevening and Commonwealth scholars every year.

We are grateful for this support and we call upon the government to expand such efforts to help us diversify our community.

2. Technology has changed education; we need to change too.

I may have found my best French teacher ever. It’s a machine-learning algorithm that sees where my weaknesses and strengths are and dishes up new lessons every day. I loved my French teachers at Princeton, but now I’m learning a lot from a machine.

While we have reaped some of the benefits of the data revolution in our research, we are just beginning to realise its effects on our teaching. The pandemic, and our rapid move to [remote, online and “multi-mode” education](#) have given us a taste of our ability to enrich the educational experience for our students.



The Olanrewaju brothers, founders of the Lara & Biodun Olanrewaju Scholarship, join Imperial to celebrate the achievements of black students and professionals as part of Black History Month 2019.



Imperial researchers created the Saturday Science Club to inspire children in the White City community and support further learning outside of school. Held at the Invention Rooms at White City Campus, the sessions are a mix of family-friendly workshops and interactive activities.

We must seize the opportunity to build upon what we have done by integrating the innovations we have made with the best of our traditional modes of education. We must remain alert to opportunities for further innovation. The best and brightest students will not accept an education fashioned around dull lectures in a crowded auditorium.

Education is a two-way street; students learn from scholars and from one another while scholars learn from their students. We need to recapture this spirit while also seizing the opportunities that technology brings.

I was struck by conversations I have had with colleagues teaching the “conversion masters” for [AI and Machine Learning](#). They talk about how students come from all backgrounds – chemists from pharma, finance wizards from the City, engineers, even a barrister. They come in wanting to learn how to use AI and Machine Learning in their field. They have the problems and want to learn how to solve them. The teachers and students learn from one another. It is an exhilarating course because new ideas, and new areas of research and innovation emerge from the classroom discussions.

There is much that will be changing in who we teach and how we teach. Events on a virtual platform have broadened our audience. We can share inaugural lectures, invited speeches, panels and everything with a wide variety of people.

It will no longer be enough to focus on educating young scholars aged 18–22. Learning should be a lifetime activity, and we have an important role in that. It is incumbent on us

to teach our students how to learn, and to instil in them a love of learning.

Now is the time to begin thinking clearly about our role in the education of people at all ages, on our campuses and throughout the world. This means defining our role in providing educational opportunities to adults, young people and the broader public. There is more to do. The increased complexity of the societal issues we face makes an educated citizenry more important than ever.

Universities easily get mired in pedagogical treacle unable to agree to change any course, setting up committees, launching reviews to ratify the status quo.

One thing that the pandemic taught us is that when we have to, we can change. We can and must seize the opportunity to be different.

3. We will need to use space differently

Technology is an increasingly important asset in education. Does that mean that the residential education with top scholars is outdated? I don’t think so. I believe that the time and distance between our newest scientific discoveries and what we teach our students has shrunk. We are a community of scholars eager to share the latest ideas. Where and how we do that will matter.

In 2019 I announced the [£5 million Community Fund](#) to

enable us, over five years, to enhance our estate for the benefit of student and staff collaboration. Little did we know how much our needs would change! As we find new ways of working, we focus on how to make the most of our precious time together while using technology to enable us to be efficient and effective. We will use spaces differently.

I think that we have a lot to bring to this dialogue across sectors. After all, we have experience with the “flipped classroom” where lectures and other materials are available online and the valuable face-to-face time is used for discussion, practical learning and delving deeply into topics best imparted person-to-person. As we adopt new modes of working post-pandemic, I think we should address the “flipped workplace”. Which things do we do best together, in person, and how can we use our spaces to help us do those? Which things we can do remotely, saving commuting time, energy, and stress? And which things should no longer be done?

These are important questions we need the entire community to consider and help answer. These require collaborative discussion within and across departments, optimisation of scheduling, and sharing and effective use of space. I hope that the Community Fund will help, in a small way, make some spaces on campus conducive to changes we will need to make.

4. We collaborate more freely in research than in teaching

In my [2019 Address](#) I said: “Collaboration is important not only across disciplines, but also across cultures. It brings new insights, leads to new approaches and to new discoveries.”

The pandemic has shown us how we can collaborate even more effectively than ever. This is very true of research and we only need look at some of the great accomplishments of the past year.

The rapid pivot to COVID-19 research brought out the best in local and international collaboration. A critically important collaboration, [ISARIC4C](#) (Coronavirus Clinical Characterisation Consortium) brought scientists from around the UK together to immediately link clinical data from across the NHS to answer urgent questions.

Similarly, a group of Imperial academics from Life Sciences, Medicine and Bioengineering are building upon years of collaboration to develop the [Digital Diagnostics for Africa Network](#). This network brings together diverse scientists with diagnostic manufacturing companies and organisations working in African countries. Collaborating with academics from the University of Ghana, the network is putting new disease control tools and strategies into practice.

The Department of Materials has recently begun a collaboration with the Max Planck Institute in Dusseldorf, with a £10 million grant to develop a world-first microscopy suite aimed at unravelling questions about the atomic nature of materials. This project includes joint appointment of staff between our institutions, focused on materials for the energy transition.

Such international collaboration can benefit education as well. Universities often collaborate more freely in research projects while rigidly guarding their pedagogy. If we open our minds to it, we can collaborate just as fluidly in education



(Above) Professor Frank Kelly, Battcock Chair in Community Health and Policy, heads Imperial’s Environmental Research Group, a leading provider of air quality information and research in the UK; (Below) Imperial’s COVID-19 testing lab on South Kensington Campus was established as part of Medcity’s London Testing Alliance. The Alliance serves to strengthen national testing capacity, covering swab tests from the public, key workers and care home residents. The expanded facility has created over thirty new positions, including the recruitment of graduates from Imperial’s MSc in Molecular Biology and Pathology of Viruses.

as we do in research.

This year we celebrated the tenth anniversary of our landmark collaboration with NTU to create [LKCMedicine](#). We have built a world-leading modern technology-based medical education and talented doctors are coming from the programme.

We are also working with international partners to find new and innovative ways to teach. In one example, a group of [Dyson School of Design Engineering students](#) and [TU Munich students](#) use Augmented Reality headsets and Gravity Sketch software to remotely collaborate on design engineering innovation projects.

Our [School of Public Health developed an online module with the African Institute of Mathematical Sciences, Cameroon](#), as part of their MSc in Mathematical Sciences.

The partnership with AIMS attracts students with new ideas, who challenge assumptions and inject life into mathematics. Imperial academics collaborate with partners there on how to model challenges that African countries are facing.

These collaborations, and many more, make it clear that our advocacy for international mobility is more important than ever. The free flow of people and ideas is critical to fulfilling our mission of research, education and innovation in the benefit of society. We must not let rising geopolitical challenges and seeds of separatism harm these important relationships.

In closing

We have just been through a shattering experience with unprecedented loss of life, deep psychological trauma and uncertainty looming ahead. We are all exhausted from work, worry, lack of rest and lack of human interaction. These are very challenging and stressful times.

They are also exciting times. Huge changes were thrust upon us and these experiences can serve as a catalyst for meaningful long-term change.

Universities are at a crossroads.

As we define our audacious goals and face our brutal facts, as we diversify our community, as we sustain our collaborations, as we continue to innovate our education, and as we explore new ways of working, I know that we will be leaders defining the way forward.

Thank you

Professor Alice P. Gast
2 June 2021



Station	What was done well	Areas for improvement
Musculoskeletal System (GALS)	1. Communications with patient – Introduction, obtaining consent, closing	1. Examination of the spine
Respiratory System	2. Presentation of summary of findings	2. Examination of wrist and hands
	1. Communications with patient – Introduction, obtaining consent, closing	3. Examination of hip and knees
		1. Chest expansion
		2. Auscultation
		3. Performance of steps in a systematic manner

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External awards and accolades

Amir Afshar

Visiting Researcher, Department of Chemistry
Joint winner of the 2020 Venture Catalyst Challenge for their initiative The Shellworks, which turns waste crustacean shells into biodegradable, compostable products which can be used as an alternative to plastic

Dr Azeem Alam

Medicine 2015
BEM for services to medical education during COVID-19

Dr Xavier Alauze

Marie Skłodowska-Curie Individual Fellow, Department of Physics
Awarded the Marie Skłodowska-Curie Individual Fellowship

Dr Juan Alvaro Gallego

Lecturer, Department of Bioengineering
Awarded a European Research Council Starting Grant

Professor Jane Apperley

Chair of the Centre of Haematology, Department of Immunology and Inflammation
Awarded the 2020 International Chronic Myeloid Leukemia Foundation Goldman Prize; delivered the 2021 Pierre Striickmans Memorial Lecture for the Belgian Society of Hematology

Dr Francesco Aprile

Future Leaders Fellow, Department of Chemistry
Awarded a Future Leaders Fellowship from UK Research and Innovation

Dr Martin Archer

Stephen Hawking Fellow, Department of Physics
Awarded the Stephen Hawking Fellowship from UK Research and Innovation

Sheridan Ash

MBA 2002
MBE for services to women and girls through technology

Dr Elisabetta Aurino

Research Fellow, Department of Economics and Public Policy and Centre for Health Economics and Policy Innovation
Awarded a British Academy grant and a UK Research and Innovation grant to explore the long-term effects of investment in early childhood education in Ghana

Dr Daren James Austin

PhD Physics 1992
OBE for services to emergency response during COVID-19

Dr David Ayuso

Royal Society University Research Fellow, Department of Physics
Awarded a Royal Society University Research Fellowship

Professor Barbara Bain

Professor of Diagnostic Haematology, Department of Immunology and Inflammation
AM for significant services to medical education, particularly haematology

Geoffrey Francis Maitland Ball

Aeronautics 1971
MBE for services to the community in Ellesmere Port, Cheshire during COVID-19

Dr Anna Barnard

Research Fellow (Sir Henry Dale Fellowship), Department of Chemistry
Awarded a Sir Henry Dale Fellowship

Professor Peter Barnes

Senior Research Investigator, National Heart and Lung Institute
Elected an honorary fellow of the British Pharmacological Society and awarded the Trudeau Medal for respiratory health

Dr Jo Barstow

Awarded an Ernest Rutherford Fellowship and will be joining Imperial to study exoplanets

Dr Heather Battey

Lecturer in Statistics, Department of Mathematics
Awarded an Early Career Fellowship from the Engineering and Physical Sciences Research Council

Kevin John Baughan

MBA 2005
OBE for services to innovation and skills development

Louise Olivia Beaton

Wye College 1978
OBE for voluntary service to rural communities

Dr Mario Berta

Senior Lecturer, Department of Computing
Awarded a European Research Council Starting Grant

Brandon Blackwell

Taught Masters Student, Department of Computing
Part of the winning team on University Challenge 2020

Professor Patrick Bolton

Professor in Finance and Economics, Department of Finance
Awarded a grant of €1.74 million by the European Research Council to investigate the social and environmental impact of business

Dr Florian Bouville

Lecturer in Ceramics, Department of Materials
Awarded a European Research Council Starting Grant

Dr Jochen Brandt

Royal Society University Research Fellow, Department of Chemistry
Awarded a Royal Society University Research Fellowship

Richard Brooks

Research Postgraduate, Department of Mechanical Engineering
Part of the winning team on University Challenge 2020

Dr Anna Victoria Brown

PhD Environmental Biology 2001
MBE for services to forest pathology

Dr Gillian Rosemary Tilden Bullock

Botany and Plant Technology 1978, MSc 1961, DIC 1964
BEM for services to families in rural Kenya

Dr Aaron Bundock

Academic Visitor, Department of Physics
Winner of the CMS Experiment Achievement Award

Professor Andrew Bush

Professor of Paediatrics and Paediatric Respiriology; Director, Imperial Centre for Paediatrics and Child Health, National Heart and Lung Institute
Received the European Respiratory Society Congress Chair Award in recognition of his contribution to research and training in respiratory medicine

Professor James David Forbes Calder

Professor of Bioengineering, Department of Bioengineering
OBE for services to sport and exercise

Dr Ana Caraiani

Royal Society University Research Fellow (Reader), Department of Mathematics
Winner of a European Mathematical Society Prize

Dr Tanai Cardona

Future Leaders Fellow, Department of Life Sciences
Awarded a Future Leaders Fellowship from UK Research and Innovation to lead the new Molecular Evolution Lab at Imperial

Dr Deesha Chadha

Senior Strategic Teaching Fellow, Department of Chemical Engineering
OBE for services to faith communities



Dr Deesha Chadha, Senior Strategic Teaching Fellow, Department of Chemical Engineering was awarded an OBE for services to faith communities

Professor Peter Childs

Chair and Leader in Engineering Design,
Dyson School of Design Engineering
Winner of the 2020 Queen's Award for Innovation
for the Q-Bot

Professor Fan Chung

Professor of Respiratory Medicine,
National Heart and Lung Institute
Selected as Emeritus Senior Investigator
for the National Institute for Health Research

Dr Nicholas Keith Coni

Westminster Hospital Medical School 1961
OBE for services to education for older people

Dr Evelyn Jane Corner

PhD Surgery and Cancer 2017
MBE for services to Health Education during
COVID-19

Professor Paul Anthony Cosford

St Mary's Hospital Medical School 1987
Knighted for services to public health

Daniel James Cowen

MEng Aeronauticsg 2013
MBE for services to British foreign policy

Professor Martin Cowie

Chair in Cardiology (Health Services Research),
National Heart and Lung Institute
Received the Roy Award for his outstanding
contribution in the field of heart failure

Geraldine Cox

Academic Visitor, Department of Physics
Winner of the American Institute of Physics
Gemant Award for work combining art
and science

Professor Richard Craster

Dean of the Faculty of Natural Sciences
Elected a Fellow of the American Physical Society

Dr Mark Crimmin

Reader in Organometallic Chemistry,
Department of Chemistry
Winner of the Chemistry of Transition Metals
Award from the Royal Society of Chemistry for the
discovery of an unprecedented transition metal
complex with a hexagonal planar geometry

Dr Cláudia Custódio

Associate Professor of Finance,
Department of Finance
Awarded a grant from the European Research
Council to measure the economic effects
of relaxing financial constraints

Professor Adnan Custovic

Professor of Paediatric Allergy,
National Heart and Lung Institute
Elected a Fellow of the Academy
of Medical Sciences



Professor Andreas Eisingerich,
Head of Department Analytics,
Marketing and Operations was
named among the world's top
40 business academics under
the age of 40 in Poets&Quants'
annual "Top 40 Under 40"

Professor Jane Davies

Professor of Paediatric Respiratory and
Experimental Medicine, National Heart
and Lung Institute
Selected as Senior Investigator by the National
Institute for Health Research

Professor Claudia de Rham

Professor of Theoretical Physics,
Department of Physics
Winner in the 2020 Blavatnik Awards for Young
Scientists in the UK; awarded the Simons
Foundation Investigator in Physics

Professor Sir Simon Donaldson

Chair in Pure Mathematics,
Department of Mathematics
Joint winner of the 2020 Wolf Prize
in Mathematics

Professor Charles Donovan

Professor of Practice; Executive Director,
Centre for Climate Finance and Investment,
Department of Finance
Winner in the 2019 Finance for the Future Awards
for the Centre for Climate Finance and Investment
and its MSc Climate Change, Management &
Finance programme

Dr Nicholas Dover

Marie Skłodowska-Curie Individual Fellow,
Department of Physics
Awarded the Marie Skłodowska-Curie
Individual Fellowship

Dr Patrick Dunne

Future Leaders Fellow, Department of Physics
Awarded a Future Leaders Fellowship from UK
Research and Innovation

Dr Claire Edmondson

Clinical Research Fellow,
National Heart and Lung Institute
Winner of the North American Cystic Fibrosis
Conference Junior Investigator's Best Abstract
in clinical research award

Professor Andreas Eisingerich

Head of Department Analytics, Marketing
and Operations
Named among the world's top 40 business
academics under the age of 40 in Poets&Quants'
annual "Top 40 Under 40"

Professor Paul Elkington

Honorary Clinical Senior Lecturer, Department of
Infectious Disease and Professor of Respiratory
Medicine, University of Southampton
MBE for services to medicine particularly
during COVID-19

Professor Carlton A. Evans

Professor of Global Health,
Department of Infectious Disease
MBE for services to global health

Dr James Ewen

RAEng Research Fellow,
Department of Mechanical Engineering
Awarded a Research Fellowship from
the Royal Academy of Engineering

Professor Dario Farina

Chair in Neurorehabilitation Engineering,
Department of Bioengineering
Awarded a £5.5 million grant from the UKRI/
EPSRC Transformative Healthcare Technologies
competition

Professor Allister Ian Ferguson

MSc Physics 1975
CBE for services to science and to industry

Dr Soheyla Feyzbakhsh

EPSRC Postdoctoral Research Fellow,
Department of Mathematics
Awarded a Postdoctoral Fellowship from
the Engineering and Physical Sciences
Research Council

Dr Seth Flaxman

Senior Lecturer in Statistical Machine Learning,
Department of Mathematics
Named a Samsung AI Researcher of the
Year; awarded an Early Career Fellowship
from the Engineering and Physical Sciences
Research Council

Richard Forsyth

Chemical Engineering & Chemical
Technology 2002
OBE for services to the distillation and oil and
gas industries and the community in Speyside,
Scottish Highlands

Professor Matthew Fuchter

Professor of Chemistry, Department of Chemistry
Finalist in the 2020 Blavatnik Awards for Young
Scientists in the UK

Dr Emanuele Galiffi

Research Associate (EPSRC Doctoral Prize Fellow),
Department of Physics
Winner of the Student Paper Competition
at the Metamaterials' 2020 International
Conference; awarded a Doctoral Prize Fellowship
from the Engineering and Physical Sciences
Research Council

Professor Leroy Gardner

Professor of Structural Engineering, Department
of Civil and Environmental Engineering
Elected to the Fellowship of the Royal Academy
of Engineering

Dr Nicola Gasparini

Research Fellow, Department of Chemistry
Named a World Economic Forum Young Scientist

Professor Toby Gee

Professor of Pure Mathematics,
Department of Mathematics
Awarded a European Research Council
Advanced Grant

Ali Ghorbhangholi

Electrical & Electronic Engineering 2012,
MSc Computing 2013
OBE for services to volunteering during the
COVID-19 response

Professor Vernon Gibson

Visiting Professor, Department of Materials
Awarded the Lord Lewis Prize from the Royal
Society of Chemistry for seminal contributions
to fundamental and applied inorganic
chemistry, and for critical work in policy
setting at the interface of academia with
industry and government

Dr Soranyel Gonzalez Carrero

Marie Skłodowska-Curie Fellow,
Department of Chemistry
Awarded a Marie Skłodowska-Curie Fellowship

Stephanie Greed

Research Postgraduate, Department of Chemistry
Awarded the Industry Prize at the Royal Society of
Chemistry's Organic Division poster symposium

Professor Emile S. Greenhalgh

Professor of Composite Materials,
Department of Aeronautics
Appointed as Chair in Emerging Technologies
by the Royal Academy of Engineering

Professor Emeritus William Griffith

Distinguished Research Fellow,
Department of Chemistry
Awarded the Royal Society of Chemistry's Award,
through its Historical Group, for Exceptional
Service for proactively and inclusively supporting
colleagues and the wider scientific community,
advising on activities celebrating the history of
the chemical sciences

Professor Sir Martin Hairer

Chair in Probability and Stochastic Analysis,
Department of Mathematics
Winner of the 2021 Breakthrough Prize
in Mathematics

Professor Geoffrey Hall

Professor of Physics, Department of Physics
Awarded the James Chadwick Medal and Prize
for his pioneering work in developing silicon
detectors and front-end electronics for particle
physics experiments, especially in crucial
radiation-hard applications, critical for the
observation of the Higgs boson in 2012



Professor Dame Julia Higgins,
Senior Research Investigator,
Department of Chemical
Engineering, was awarded the
2020 Sam Edwards Medal and
Prize for pioneering work
in neutron scattering applied
to the understanding of polymer
structure and dynamics, and
also received the 2020 Sir
Frank Whittle Medal of the
Royal Academy of Engineering
for outstanding engineering
achievement; awarded an
Honorary Doctor of Science for
promoting diversity and inclusion
in science and technology by
Concordia University, Montreal

Professor Timothy Hallett

Professor of Global Health,
School of Public Health
Elected a Fellow of the Academy
of Medical Sciences

Dr Stephen Hansen

Associate Professor of Economics,
Imperial College Business School
Awarded a €1,648,551 European Research Council
Consolidator Grant for a length of five years

Professor Martin Heaney

Professor of Organic Materials,
Department of Chemistry
Awarded the Royal Society of Chemistry's
Peter Day Award for pioneering contributions
to solution processed organic semiconductors;
recipient of the Royal Society of Chemistry's UK
Macro Medal

Professor Dame Julia Higgins

Senior Research Investigator,
Department of Chemical Engineering
Awarded the 2020 Sam Edwards Medal and Prize
for pioneering work in neutron scattering applied
to the understanding of polymer structure and
dynamics; awarded the 2020 Sir Frank Whittle
Medal of the Royal Academy of Engineering for
outstanding engineering achievement; awarded
an Honorary Doctor of Science for promoting
diversity and inclusion in science and technology
by Concordia University, Montreal

Dr James Hindley

Research Associate, Department of Chemistry
Awarded the Katharine Burr Blodgett PhD Award
from the Society of Chemical Industry/Royal
Society of Chemistry Joint Colloids Group

Dr Timothy Boon Leong Ho

PhD Investigative Science 2002
MBE for services to the NHS during COVID-19

Professor Stephen Townley Holgate

Charing Cross Hospital Medical School 1971
Knighted for services to Medical Research

Mathew Holloway

MSc DIC Innovation Design Engineering 2008
Winner of the 2020 Queen's Award for Innovation for the Q-Bot

Professor Oliver Howes

Visiting Professor, Institute of Clinical Sciences
Elected a Fellow of the Academy of Medical Sciences

Professor George Jackson

Professor of Chemical Physics,
Department of Chemical Engineering
Elected a Fellow of the Royal Society

Insiya Jafferjee

Visiting Researcher, Department of Chemistry
Joint winner of the 2020 Venture Catalyst Challenge for their initiative The Shellworks, which turns waste crustacean shells into biodegradable, compostable products which can be used as an alternative to plastic

Swapnil Jagtap

Research Postgraduate, Department of Civil and Environmental Engineering
Named one of Forbes' 30 Under 30 in Europe for his work on reducing the carbon impact of aviation

Professor Sebastian Johnston

Asthma UK Clinical Chair,
National Heart and Lung Institute
Winner of the European Respiratory Society's Gold Medal in Asthma; elected as a Fellow of European Academy of Allergy & Clinical Immunology

Edward Jones

Taught Postgraduate,
Dyson School of Design Engineering
Joint winner of the 2020 Venture Catalyst Challenge for their initiative The Shellworks, which turns waste crustacean shells into biodegradable, compostable products which can be used as an alternative to plastic

Chris Kalogroulis

Undergraduate Student,
Dyson School of Design Engineering
Winner of the 2020 GSK UK Young Engineer of the Year

Dr Matthew Jamie Knight

PG Cert Medicine 2014
MBE for services to the NHS particularly during COVID-19

Professor Sir Peter Knight

Senior Research Investigator,
Department of Physics
Awarded the Institution of Engineering and Technology Fellowship

Thomas Komoly

MSc Mechanical Engineering 1965
BEM for services to Holocaust education and awareness

Dr Rodrigo Ledesma-Amaro

Lecturer, Department of Bioengineering
Awarded a European Research Council Starting Grant

Dr David Lefevre

Director, EdTech Lab
Winner of multiple team awards at the QS Reimagine Education Conference, which recognised the EdTech Lab's part in the FOME Alliance, their hologram and Global Online MBA

Professor Martin Liebeck

Head of the Pure Mathematics Section,
Department of Mathematics
Awarded the London Mathematical Society's Pólya Prize

Professor Nick Long

The Sir Edward Frankland BP Chair of Inorganic Chemistry, Department of Chemistry
Awarded the Royal Society of Chemistry's Frankland Award for outstanding synthetic inorganic and organometallic chemistry and subsequent applications in catalysis, functional materials and biomedical imaging

Professor Sandro Macchietto

Professor of Process Systems Engineering,
Department of Chemical Engineering
Elected a Fellow of the Royal Academy of Engineering

Vanessa Madu

Undergraduate Student,
Department of Mathematics
Winner of a Rare Rising Star award, which recognises the UK's top ten black students

Professor Stefan Maier

Lee-Lucas Chair in Experimental Physics,
Department of Physics
Awarded the American Chemical Society Nano Lectureship

Dr Sarah Malik

Academic Visitor, Department of Physics
Awarded the Royal Society University Research Fellowship (renewal)

Professor Omar Matar

Vice-Dean (Education), Faculty of Engineering,
Department of Chemical Engineering
Elected to the Fellowship of the Royal Academy of Engineering

Professor Iain McCulloch

Visiting Professor, Department of Chemistry
Awarded the Royal Society of Chemistry's Interdisciplinary Prize for advances in the design, synthesis and innovative application of functional materials in optics, electronics and energy; elected a Fellow of the Royal Society; awarded the 2020 Blaise Pascal Medal by the European Academy of Sciences

Professor Sally Margaret McGregor

St Mary's Hospital Medical School 1961
OBE for services to early childhood development in developing countries

Conor McMeel

Research Postgraduate, Department of Computing
Part of the winning team on University Challenge 2020

Professor Graham Medley

PhD Epidemiology 1987
OBE for his services to the COVID-19 response

Professor Neena Modi

Professor of Neonatal Medicine,
School of Public Health
Elected a Fellow of the Academy of Medical Sciences; elected to Council at the Academy of Medical Sciences

Dr Asher Mullokandov

Research Associate, Department of Mathematics
Granted the Crick-Turing Biomedical Data Science Award

Professor Kevin Murphy

Professor of Endocrinology and Metabolism,
Department of Metabolism, Digestion and Reproduction
Awarded an Honorary Fellowship from the Royal College of Physicians

Dr Mirabelle Muuls

Assistant Professor in Economics,
Department of Economics and Public Policy
Winner in the 2019 Finance for the Future Awards for the Centre for Climate Finance and Investment and its MSc Climate Change, Management & Finance programme



Professor Ramana Nanda

Visiting Professor of Entrepreneurial Finance,
Department of Finance
Awarded a European Research Council Consolidator Grant worth €1.6 million to study the financing frictions facing 'high potential' entrepreneurs and small and medium sized enterprises (SMEs)

Clare Joanna Threlfall Normand

MSc Environmental Technology 1994
OBE for services to brain tumour charities

Professor Laura Jimena Noval

Assistant Professor of Organisational Behaviour,
Department of Management and Entrepreneurship
Named among Top 40 business academics under the age of 40 in Poets&Quants' annual "Top 40 Under 40"

Professor Peter Openshaw

Senior Consul, Professor of Experimental Medicine, National Heart and Lung Institute
Selected as Senior Investigator by the National Institute for Health Research

Dr James Owen

Lecturer in Exoplanet Physics (Royal Society Fellow), Department of Physics
Awarded the Royal Astronomical Society's Fowler Award for work on the atmospheres of small exoplanets that orbit close to their star

Dr Asha Patel

Lecturer in Cell and Gene Therapy, National Heart and Lung Institute
Awarded the Elsie Widdowson Fellowship to support research after maternity; Awarded a Royal Society Research Grant to develop non-viral vectors for RNA delivery

Dr Camille Petit

Reader in Materials Engineering,
Department of Chemical Engineering
Awarded the Royal Society of Chemistry's Barrer Award for innovative work on porous nanostructures for applications in the energy and sustainability sectors

Professor Simon James Trent Pollard

Chemistry 1987, PhD Civil Engineering 1990
OBE for services to environmental risk management

Professor Dame Carol Propper

Chair in Economics, Department of Economics and Public Policy
Awarded a damehood for her contribution to economics and public health

Sarabjit Singh Purewal

Electrical and Electronic Engineering 1976
OBE for services to health and safety and to cyber security

Dr Sofia Qvarfort

Academic Visitor, Department of Physics
Received a Doctoral Prize Fellowship from the Engineering and Physical Sciences Research Council

Federica Raguseo

Research Postgraduate, Department of Chemistry
Awarded the Alfred Bader Prize for Organic Chemistry

Professor Tarun Ramadorai

Professor of Financial Economics,
Department of Finance
Winner of 2019 Wharton Research Data Services' Best Paper award



Swapnil Jagtap, Research Postgraduate, Department of Civil and Environmental Engineering, was named one of Forbes' 30 Under 30 in Europe for his work on reducing the carbon impact of aviation

Dr Saravana Ramasamy

Wellcome Trust Sir Henry Dale Fellow,
Institute of Clinical Sciences

Accepted onto the EMBO Young Investigator Programme

Myrddin Rees

Consultant General and Hepatobiliary Surgeon,
Hampshire Hospitals NHS Foundation Trust
OBE for services to liver cancer surgery

Caleb Rich

Research Postgraduate, Department of Physics
Part of the winning team on University Challenge 2020

Professor Esther Rodriguez-Villegas

Professor in Low Power Electronics, Department of Electrical and Electronic Engineering
Elected to the Fellowship of the Royal Academy of Engineering

Dr Sarah Rouse

Future Leaders Fellow,
Department of Life Sciences

Awarded a Future Leaders Fellowship from UK Research and Innovation to tackle new and unexplored questions about mitochondrial lipid signalling pathways that are critical in ageing and age-related disorders

Dr Timothy Runcorn

RAEng Research Fellow, Department of Physics
Awarded a Research Fellowship from the Royal Academy of Engineering

Professor John Roy Sambles

Physics 1967, PhD 1970
Knighted for services to scientific research and outreach

Dr Gurjinder Singh Sandhu

PG Dip Investigative Science 2009
MBE for services to the NHS during COVID-19

Dr Salvatore Santamaria

Research Fellow, Department of Immunology and Inflammation
Awarded the British Society for Matrix Biology's 2019 Young Investigator Award

Dr Sandra Scott

Research Nurse, National Heart and Lung Institute
Awarded the Outstanding Individual Achievement Award by the Clinical Research Network North West London (National Institute for Health Research)

Professor Nilay Shah

Head of Department,
Department of Chemical Engineering
OBE for services to the decarbonisation of the UK economy

Professor Raad Shakir

Visiting Professor of Neurology,
Department of Brain Sciences
CBE for services to global neurology



Professor Esther Rodriguez-Villegas
Professor in Low Power Electronics, Department of Electrical and Electronic Engineering, was elected to the Fellowship of the Royal Academy of Engineering

Jeremy Lewis Simons

MSc Management Science 1980
OBE for services to air quality and to environmental conservation in London

Anthony John Spiro

Metallurgy 1968, MSc 1970
OBE for voluntary service to Holocaust remembrance

Dr Julia Stawarz

Royal Society University Research Fellow,
Department of Physics

Received the Winton Award from the Royal Astronomical Society for her work on space plasma physics; awarded the Royal Society University Research Fellowship

Professor Kellogg Stelle

Professor of Physics, Department of Physics
Awarded the John William Strutt, Lord Rayleigh Medal and Prize for his seminal contributions to fundamental physics

Professor Molly Stevens

Professor of Biomedical Materials and Regenerative Medicine, Department of Materials
Winner of the Federation of European Biochemical Societies/EMBO Women in Science Award in recognition of her outstanding scientific achievements; elected a Fellow of the Royal Society

Professor Ileana Stigliani

Associate Professor of Design and Innovation,
Department of Management and Entrepreneurship
Winner of the 2018 Journal of Management Studies Best Paper Award

Professor Richard Syms

Professor of Microsystems Technology,
Department of Electrical and Electronic Engineering

Awarded an Honorary Fellowship from the Royal College of Physicians

Dr Jo Szram

Honorary Clinical Senior Lecturer,
National Heart and Lung Institute
Elected fellow of Royal College of Physicians
London Linacre

Martin John Griffin Tapp

Wye College 1961
BEM for services to flood risk management in Kent

Professor Ed Tate

Professor of Chemical Biology,
Department of Chemistry
Awarded the Royal Society of Chemistry's Corday-Morgan Prize for contributions to the discovery of novel chemical probes and their application in opening up new understanding of protein modification in living systems leading to the validation of novel drug targets in cancer and infectious disease

Andy Tay Kah Ping

Research Fellow, Department of Bioengineering
Named a World Economic Forum Young Scientist

Professor Richard Templar

Director of Innovation at the Grantham Institute,
Department of Chemistry
Awarded a Fellowship of the Royal Society of Arts

Winsome May Thomas

Matron for Quality and BAME Nurses and Midwives Network Chair, Imperial College Healthcare NHS Trust
BEM for services to nursing during COVID-19

Dr Philip Thomas

Lecturer in Biomathematics,
Department of Mathematics
Awarded a Future Leaders Fellowship from UK Research and Innovation to develop the maths for new models of living cells

Professor Richard Thomas

Royal Society Research Professor (Pure Mathematics), Department of Mathematics
Awarded a Royal Society Research Professorship

Professor Emma Thomson

PhD Medicine 2010
OBE for services to the NHS during the COVID-19 response

Regius Professor Chris Toumazou

Winston Wong Chair, Biomedical Circuits,
Department of Electrical and Electronic Engineering
Awarded a President's Special Award for Pandemic Service by the Royal Academy of Engineering for his lab-free COVID-19 tests that deliver results in under 90 minutes

Professor Roberto Trotta

Professor of Astrostatistics, Department of Physics
Awarded the Royal Astronomical Society's Annie Maunder Medal 2020 for his work promoting public understanding of cosmology and astrophysics

Faisal Tuddy

BSc Physics 1993
BEM for services to the pharmaceutical sector during COVID-19

Dr Paul Turner

Reader in Paediatric Allergy and Clinical Immunology, National Heart and Lung Institute
Awarded the 2020 European Academy of Allergy & Clinical Immunology PhARF Award

Dr Cynthia Vidal

Marie Skłodowska Curie Fellow,
Department of Physics
Awarded the Marie Skłodowska-Curie Individual Fellowship

Professor Sir Tejinder (Jim) Virdee

Professor of Physics, Department of Physics
Awarded the 2020 Blaise Pascal Medal for Physics by the European Academy of Sciences

Dr Abigail Waldron

Marie Skłodowska Curie Fellow,
Department of Physics
Awarded the Marie Skłodowska-Curie Individual Fellowship

Steve Walker

Fire Safety Adviser, Estates Operations
Elected as Chairperson of the Universities Safety & Health Association (USHA) Fire Safety Group, London Region

Professor Ansgar Walther

Assistant Professor of Finance,
Department of Finance
Winner of a 2019 Wharton Research Data Services' Best Paper award

Professor Robert Wilkinson

Professor in Infectious Disease,
Department of Infectious Disease
Awarded The Union Scientific Prize for work investigating Tuberculosis

Professor Daryl Williams

Professor of Particle Science,
Department of Chemical Engineering
Winner of the 2020 Chemistry World Entrepreneur of the Year by the Royal Society of Chemistry for the pioneering invention of the Dynamic Vapour Sorption instrument

Professor Charlotte Williams

Visiting Professor, Department of Chemistry
OBE for services to chemistry

Professor Mark Howard Wilson

Consultant Neurosurgeon,
Department of Surgery and Cancer
OBE for services to charity and the COVID-19 response

Fan Yan

Research Postgraduate, Department of Physics
Recipient of a Chinese Government Award for Outstanding Self-financed Students Abroad, the highest accolade given to graduate students studying outside China

Team awards

Imperial College Academic Health Science Centre

Academic Health Science Centre
Imperial College Academic Health Science Centre has secured its status for a further five years by demonstrating excellence in research, health education and patient care

Imperial College Business School MBA Programme

Business School
The Global Online MBA has been named number one in the UK for online learning for the third consecutive year

Estates Operations

Support Services
Awarded a Partner Longevity Milestone Award from the Considerate Constructors Scheme, to recognise five years of collaboration and best practice

Early Years Education Centre Team

Early Years Education Centre
Achieved the grade of Outstanding from Ofsted

Office of the President
Level 4 Faculty Building
Imperial College London
South Kensington Campus
London SW7 2AZ

+44 (0)20 7594 5001
president@imperial.ac.uk

www.imperial.ac.uk/president