

**Imperial College
London**



Our strategy for engaging with society

2020–2021

SOCIETAL ENGAGEMENT AT IMPERIAL



As a university we are keen to make our work accessible, relevant and responsive to the needs and insights of society. I am delighted to be sharing our latest strategy document, which lays out how we aim to achieve this.

As a College champion for Societal Engagement, it has been truly fantastic to see our students, staff and alumni taking great strides to evolve the way we work by starting new conversations, involving diverse voices, and seeking fresh ideas.

Imperial's mission is to achieve enduring excellence in education and research in science, engineering, medicine and business for the benefit of society. Today we work with society more than ever before in order to fulfil this goal – engagement is happening across the College and in every academic department.

My team lead on a number of central initiatives, which can only be successful through collaboration with others across Imperial. As this strategy shows, we partner with school teachers and pupils, local community groups and residents and patients as well as the public more widely. This brochure outlines our motivations, audiences and objectives, providing examples of our flagship engagement initiatives and sharing the stories of our inspiring partners and participants. I thank everybody who gets involved in this work – from volunteers and mentors to researchers and external partners – without you, none of this would be possible.

We hope that this strategy inspires you afresh and provides an overview of the impact of our work as well as the great things that we aspire to achieve next. Please do get in touch if you would like to explore how you can get involved or collaborate with us to innovate, experiment and create change in exciting and meaningful ways.

Our doors are always open, and we are keen to be engaged.

Professor Maggie Dallman
Associate Provost (Academic Partnerships)
Imperial College London

What is engagement?

Societal engagement is about inspiring and nurturing a sense of curiosity, whether with our own natural world or with the far corners of the universe. It is about creating accessible and meaningful experiences and opportunities to share ideas, insights and skills. Through engagement we hope that we can bring tangible benefits to society, such as improved health through more relevant medical research, or cleaner fuels that reduce carbon emissions.

Why do we do it?

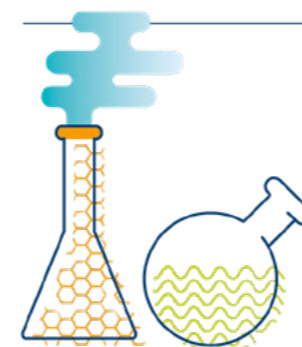
As a university focused on science and its impact in the world, we want to share our passions with other inquiring minds. And we want to make sure that we can be a trusted source of expertise in uncertain times. We engage because we want to be a responsible force for good in society – globally and locally. It's about being a good neighbour and a good citizen. And it's about seeking not only to inspire people, but to collaborate, partner, share our passions and common challenges – and find solutions together.

What does that mean in practice?

We work in partnership with school teachers and pupils, local community groups and residents, patients and the public more widely – and we support our staff and students to do so too. It means involving and engaging members of the public in our research, through discussions and dialogue, festivals and data collection. It means widening participation in our academic programmes so that we are a diverse community that represents the society we are a part of. It means being an anchor within our local areas, providing the support that people need to improve their own skills and to engage with a scientific world. And, ultimately, it means trying to listen as much as we try to inform.

What have we achieved so far?

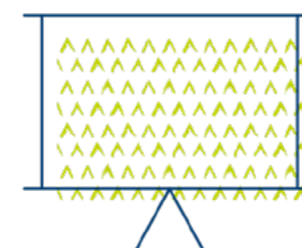
A huge amount of societal engagement takes place in all corners of Imperial. Here are some of the highlights from the work of our central teams:



1,100+ researchers took part in our 2018–19 public engagement programme



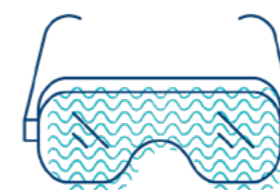
650+ local young people supported through **18,000+** hours of coding, homework clubs, prototyping and making at the Invention Rooms in the last three years



250+ attendees to our staff engagement masterclasses – **98%** said it had increased their understanding



60,000 members of the public took part in the Great Exhibition Road Festival 2019



8,500 local people engaged with science and making at **33** events at the Invention Rooms in the last three years



42 members of staff as school governors and part of the School Governors' Network



39 community, public, and patient engagement and involvement projects supported through six rounds of seed funding



300+ attendees to three People's Research Café patient involvement events



24,000+ unique visitors to Reach Out Reporter online topical science resource since 2016




40+ White City businesses, community leaders and social entrepreneurs supported in the last two years



200+ PhD students took part in engagement training through the Graduate School in 2018–19

IMPERIAL'S SOCIETAL ENGAGEMENT STRATEGY

Vision



Empowering people through engagement with science, technology, engineering and maths (STEM)

See our outcomes table (p22–23) for the changes we aspire to make and how we will measure our progress

Motivations



To be engaging, inspiring and accessible to young people of all backgrounds

To foster scientific confidence, knowledge and understanding in society

To enrich our research and enhance our impact, by being more responsive to society

To build respectful collaborations that enable the public to be involved and valued in our work

To enrich our student, staff and alumni experience and enhance their skills development

Audiences



Primary and secondary schools, young people and their networks
Page 6

Everyone interested in or affected by our research
Page 9

Communities living and working near our campuses
Page 12

Patients, carers and their networks
Page 15

Our students, staff and alumni
Page 18

Working with underrepresented groups

Working locally, nationally and globally

Objectives



1
To support schools in their mission of raising pupils' ambitions and attainment in STEM

2
To increase diversity in our student body

3
To nurture a strong sense of social responsibility within our students

4
To be a trusted source of STEM expertise – locally, nationally and globally

5
To create innovative opportunities for more people to develop STEM skills and ideas

6
To embed public engagement in research projects and research culture at Imperial

7
To develop accessible and inspiring programmes and platforms that empower people in topical science issues

8
To develop the resources, infrastructure and governance to enable our staff and students to deliver effective public engagement

9
To foster an ethos of working in partnership with community and public groups to tackle shared societal challenges

CASE STUDY

SCHOOLS,
YOUNG PEOPLE
AND THEIR
NETWORKS

Young people tell us that they face many challenges in understanding their options for progressing beyond school.

This is why our strategy for outreach and schools engagement is all about support. We want to engage young people multiple times – our research and experience has shown us that this is the most effective way of empowering them to make informed decisions about their futures. We work with schools and young people, focusing on curriculum support and subject-based cohort programmes, to create a network of STEM enthusiasts who have the understanding, skills, networks and resources they need.

We have partnered with a tech company to develop Reach Out CPD, an online primary science professional development programme for teachers, helping us to support pupils across the country from an early age.

We use the pioneering Wohl Reach Out Lab at South Kensington as a hub to bring school pupils together with our passionate staff and students from Imperial, to get involved in hands-on experiments and engaging STEM activities.

And the Dangoor Reach Out Makerspace at White City similarly aims to inspire young people from the local community to think creatively and to see that there are no limits to using their entrepreneurial skills when they start making!



Kyrillos Sidarous, *summer school alumnus and team member*

“I’ve been involved in Imperial’s outreach programme for over ten years now. I was thirteen when I first took part in the Robotics Summer School – our team won the competition two years in a row and we were asked if we wanted to come back as mentors the following year. That was brilliant – we were helping students older than us! The only summer school I’ve missed was in 2012 – when I was working at the Olympics.

Ever since then I’ve become a member of the team really – from a Senior Residential Assistant for the summer schools, to a Duty Manager at the Invention Rooms. I helped Kate set up the Makerspace, everything from putting together safety documents to setting up my own day of activities for the students, including aspects from my Master’s at the Business School. I wanted to help young people to think through the business aspects of their ideas and prototypes, including costs and sustainability plans. I feel I’ve been able to bring something to the table at the Invention Rooms, and it’s been great seeing it grow from an empty shell.

The trips that we take kids on during these summer schools could change their lives – whether it’s their first time to the theatre, or a visit to a lab here at Imperial. It is so rewarding seeing them go from being really shy to interacting with one another and sharing their projects so proudly. These programmes have such an impact in a short timeframe.

The experience I’ve had with the Outreach team has definitely helped me to get my new job. I am so thankful to have been part of these programmes and to be able to contribute to them. I’ve taken away so much – I’m always learning, whether that’s becoming a bit more creative or practical tips about management. I now know what people mean when they say they love their job and I definitely see myself working in outreach in the future.”



536 young people attended our 2018–19 summer schools



PROGRAMMES AND PROGRESS

STEM Potential

STEM Potential is a STEM-focused cohort programme that has been running since autumn 2014. The programme provides curriculum support for participants in Years 10–13, helping them study for their GCSEs and A-levels, and prepare for university. Each year more than 30 events take place on campus for participants enrolled in the STEM Potential programme, reaching approximately 360 school pupils.

The value of STEM Potential to the participants doesn’t just come from the curriculum support – each session a wide range of undergraduate and postgraduate students provide guidance in navigating their university and school journeys. Through workshops, taster days

and summer schools, young people get experience of university life as well as subject-specific skills and insights.

Nabeeha, who took part in STEM Potential over the last two years and is now studying Medicine, said: “STEM potential has been one of the greatest experiences I have ever had. It has given me the much needed support in A-levels, and university applications, and without them, I believe I would be nowhere. Coming in on a weekend to be supported by an array of academics and mentors, to support my journey, is invaluable. The mentors are willing to give you help every step of the way – having them there to advise, guide and be by your side is amazing.”



STEM potential has been one of the greatest experiences I have ever had



..... PROGRAMMES AND PROGRESS

Primary Science Hampers

The Outreach Primary Hampers are an in-school resource developed by Imperial staff and students to provide equipment and consumables for schools to borrow, across a range of different science topics. The aim of the Hampers is to engage and inspire participants to have a greater understanding of the world around them, and to support teachers and ambassadors in delivering hands-on experiments in school, particularly those who may not have access to such equipment.

The activities in each Hamper have been designed to fit within an hour, and can be delivered to a full class or smaller groups. The Primary Science Hampers have led to further primary-level engagement,

including in-school Science Clubs led by Imperial postgraduate students. These philanthropically funded clubs take place over an eight-week period during term-time.

Hampers currently available for use are:

- Looking at Light
- Making Molecules
- Microscopic World
- Rocks

The Hampers have been used to deliver over 50 sessions across 18 primary school groups within London and the south east. Many of these sessions have been part of the Science Club initiative, and others were organised by individual Imperial students and staff.

----- CASE STUDY -----

Shanaj Salahuddin, *Sutton Scholars parent*

“I cannot express in words how grateful we are for the Imperial Sutton Scholars programme. It’s had such a huge impact on our whole family! My daughter Samiyah joined the programme when it launched in Autumn 2017 and she was in Year 7. Over two and a bit years, she and her best friend took part in sessions about coding, computer science and digital technology at Imperial six times a year, including a weekend residential. They graduated this summer as part of the first cohort of 60 students. It’s been fantastic – it has blown us away!

The experience has been life-changing for Samiyah. She’s now taking Computer Science GCSE when she goes into Year 10 this year. It has opened up so many doors for her in terms of interest in STEM subjects and computing, and the possibilities for her future career. I watched her really blossom as she went through the programme – from being quite shy and timid, to interacting with others, growing in confidence, and making lasting friendships. It was just amazing to see her at the graduation ceremony with her head up high, proudly speaking into the microphone in front of all those people!

It’s been invaluable for us as a family too. Samiyah’s experiences have inspired her younger sister, who at eight years old is now curious about coding and university. I’ve



become more interested in computing – I even took an ‘Introduction to Python’ course myself! Our eyes have been opened as to how important coding is in our everyday life and how useful these skills can be. Parents like us have been exposed to things we never would have come across before, and the amazing opportunities science and technology can offer.

Since starting the programme, Samiyah founded the first ever coding club at her school, and even the Head Teacher agrees that her enthusiasm contributed to the appointment of a Head of Computing at her school. So, both within our family and beyond, we have a lot to thank the programme and Imperial team for!”

EVERYONE INTERESTED IN OR AFFECTED BY OUR RESEARCH

We believe that by working together researchers and members of the public can overcome the challenges that affect us all, whether it’s fighting disease or tackling climate change. It’s vital that our researchers share their work, and that members of the public have the opportunity to get involved and influence it. While new research and ground-breaking innovations are exciting and inspiring to hear about, they can be further strengthened by diverse ideas, experiences and questions.

In uncertain times, it’s more important than ever that there are accessible sources of authentic information that members of the public know they can trust. Beyond this, we should empower the public to engage critically with the information they encounter, building their confidence. In an increasingly connected world, making sure that people can be part of a dialogue on topical issues is a must for our democracy. We aspire to facilitate inclusive discussions between voices from all backgrounds, because access to STEM is a key part of a fair and democratic society. That’s where a university of science and technology that genuinely engages with the public can make a real difference.

We aim to connect with a broad range of audiences, from those already interested in our research and ready to get involved through to those not yet confident in the sciences. Our engagement with new audiences often starts with providing enjoyable experiences that stimulate curiosity and build trust.

That’s why we’re creating a range of platforms and programmes to bring together the public and our College community in a way that is appropriate to participants’ confidence levels and needs. Programmes such as our annual festival, attended by over 60,000 people of all ages and involving creative collaborations. Discussion events and citizen science activities. Our Lates events, in which around 15 research groups per event debate, workshop and explore areas of their work with adult audiences. Hands-on family discovery days at the Invention Rooms exploring themes such as robots or making.

And it’s why we’re supporting our researchers in developing, delivering and evaluating their own engagement activities to maximise the impacts they have in society.



Carmel Howe, *Postdoctoral Research Associate, Bioengineering*

“I did some outreach activities during my PhD, so I was excited to take part in the 2019 Great Exhibition Road Festival. The Public Engagement team paired us with artists to create a hands-on workshop to inspire attendees about our neuroscience research. Having artists as friends, I’m always astounded at the outreach they do – I’ve struggled to come up with anything so engaging myself.

The Festival was a great experience of managing an outreach activity and working collaboratively with people from outside science. It felt like a joint project, and we came up with an idea we wouldn’t have thought of on our own, which gave us a great platform to explain our research.

The workshop was very popular. At times the sheer number of attendees was overwhelming, but I think that’s a testament to how well designed it was. The children were obviously very excited, but the parents too were asking lots of questions. I even met a schoolteacher and we now are setting up a lab visit for one of their students.

We learnt lots about new approaches to engagement and how we could make it better next time and give the science a bigger presence. For one of my colleagues, it was the first time he’d been involved in public engagement. He was a bit shy initially but by the end of the weekend he was keen to do it again, which was useful when we used it at a ‘Take your child to work’ day.

I am still in contact with the artists, and we’ve discussed applying for outreach grants to develop new workshops and activities to take to schools or other festivals.”

6,500+ Year 12 students from widening participation backgrounds enrolled on the MA*ths online programme, involving masterclass events and two seven-week MOOCs (massive open online courses)



94% of festival visitors would come again

PROGRAMMES AND PROGRESS

Great Exhibition Road Festival

The Great Exhibition Road Festival is our flagship societal engagement event, a three-day celebration of the arts and sciences in South Kensington that attracts around 60,000 visitors. It launched in 2019 as the successor to the annual Imperial Festival, which started in 2012. Over 20 local institutions – including the V&A, Royal Albert Hall, Natural History Museum and Science Museum – collaborate to create a free programme of unique and creative workshops, talks, exhibitions and performances, all in the spirit of the Great Exhibition of 1851. Imperial leads on this large-scale event in order to engage new audiences with our research through a variety of creative methods and approaches.

Exhibition Road is closed for the weekend and the Festival partners spill out onto the Road to create an accessible and lively

range of activities for all ages. In 2019, about half of our visitors were visiting in family groups and the other half in adult groups. As well as the hundreds of exhibits and performances, we put on 68 different talks that were attended by 6,000 people, and several hands-on workshops that engaged well over 8,000 people. This new festival tripled the number of visitors to the Imperial Festival, and 68% of those visitors were new to Imperial Festival.

Community engagement was a key objective and we worked hard to reach out to audiences who wouldn't typically engage with us. As a result, several areas of the Festival were co-created with young people from our local communities. We learnt a lot from this community engagement and we hope to build on it significantly for 2020 and beyond.



CASE STUDY

Charlotte Kestner, Admissions Tutor, Mathematics

“My role includes championing outreach and engagement wherever possible. This is important to me as I would like to see a more diverse and inclusive cohort and I think outreach is one of the best ways to encourage students to think about doing a maths degree.

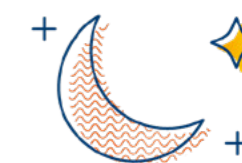
The Public Engagement team approached me and a few colleagues with the idea of a maths-themed event as part of their Imperial Lates programme, which are after-hours public celebrations of science and engineering. At first, we thought they meant contributing a single stand to a larger event, not pulling together a whole evening dedicated to maths! I think a few of us were quite sceptical that we would get enough staff from the department involved, or have enough activities.

However, I was amazed at how popular the event was, both in terms of the number academics who took the time to come up with demos and talks, and how many members of the public we reached. I think everyone really enjoyed it, and it's probably fair to say it was the biggest maths-only event most of our staff had ever been involved in. It certainly was for me.

Personally, I had lots of fun developing my own workshop making platonic



solid chocolate truffles, which seemed to be very popular with the public. I was also pleased that the Lates gave many of our staff their first experience of outreach. I think it has given the department more confidence that it can deliver large outreach events in future.”



3,500 visitors attended our 2018–19 Lates series, more than half of whom had no connection to Imperial

PROGRAMMES AND PROGRESS

Mrs X: Theatre of Debate on Antimicrobial Resistance (AMR)

In 2017 we initiated a project in collaboration with Theatre of Debate, who specialise in producing entertaining and thought-provoking performances exploring ethical and social issues in science.

This project brought together Imperial researchers, clinicians and GPs with members of the public, patients, a playwright and theatre director, in order to co-create a play inspired and informed by Imperial's research in AMR.

The collaborative process that generated the script was a core part of this project. Our Imperial team and members of the public engaged with each other through a series of interactive workshops facilitated by Theatre of Debate. These sparked rich dialogue as they shared ideas,

personal perspectives and experiences about AMR.

The final product of this engagement was a play about AMR aimed at an audience of adults and children aged 12 and above, followed by an audience discussion.

The play has become an exciting part of our public programme and was performed at the Imperial Festival 2018 and the Great Exhibition Road Festival 2019. It will also be performed as part of our 'Infectious' Late, during World Antibiotic Awareness Week in November 2019. The live reading and audience discussion will be recorded and released as a podcast to give the project a lasting legacy and help it reach a wider audience, such as teachers of secondary school children.

CASE STUDY

COMMUNITIES LIVING AND WORKING NEAR OUR CAMPUSES

We believe that the best way to find solutions to society's challenges – from knife crime to climate change – is by working in collaboration. We're therefore extremely proud of our connections with hard-to-reach communities in London, where we are working in partnership with people and organisations to make a positive social impact.

Our local focus is White City, where we are building a major new campus. It's a diverse part of London, with a rich history and strong sense of community. But it is also affected by wider social trends, such as rising inequality, sharp contrasts in life expectancy, social isolation and climate change. Parts of the area are among the 10% most deprived in the UK.

As a major institution in London, we take our responsibility to support and empower our local communities very seriously. And, as a world-leading science university, we feel passionately about making our science and technology accessible to all by listening and learning, and by working collaboratively to improve connectedness, confidence, wellbeing and skills.

Our holistic approach has developed in response to local needs and in line with our strengths as a university. Over the past two years, we have formed a dedicated team and established a pioneering community innovation space called The Invention Rooms. Our aim is to be a long-term friend and partner in the community.

Carol Fraser, local entrepreneur and Agent of Change

"I'm a vegan nutritionist and recently appointed Head Chef who enjoys growing organic food and running workshops around London and my local community that support people who are transitioning towards a healthier lifestyle. I have developed a natural skincare range which I am about to launch globally online. The Agents of Change programme has given me the confidence to go ahead and branch out in this area.

I decided to move into holistic care after my daughter suffered mental health problems as a result of being bullied at school. I went from working in a really dynamic environment to becoming someone who supported my family and I lost sight of who I was and started to doubt my abilities. I joined the Agents of Change programme to further develop my skills, regain my confidence and think of myself differently. I also wanted to build up my knowledge and skills to be able to mentor other women in the local area, but at the same time to learn from women with more experience than me. It's been an amazing journey so far.

For a very long time, I'd lost my joy. I became something to others and nothing was left for myself. I'd been searching for that kind of joy – to have that balance back in my life. The programme has taught me how to manage myself emotionally to see where I needed help. I now keep a gratitude journal and am keeping track of my goals and setting timelines. I was very low and the programme has really helped me to find myself again. I'm so much happier because I can see how I'm going to achieve my goals. It's the greatest thing. I now have a beautiful support network of local women."



PROGRAMMES AND PROGRESS

Agents of Change

Agents of Change is a pioneering place-based community leadership network for women who have an active interest in driving social change in the north of Hammersmith and Fulham. It was established in 2018 by a group of local partners, including Imperial College London, Hammersmith United Charities, the Lyric Theatre Hammersmith, and the London Borough of Hammersmith and Fulham.

The aim of the network is to support, empower and connect female community leaders of all ages, sectors and backgrounds to drive positive social change. It has more than 120 members, and brings together grassroots community leaders,

local businesses and organisations who want to make a difference.

Network meetings take place several times a year, featuring different guest speakers and creative networking activities. Members of the network can apply to join the Women's Community Leadership Programme, a free six-month leadership programme, accredited by Imperial, aimed at building the skills of female community leaders operating in the third sector.

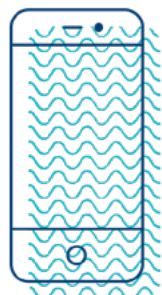
Agents of Change is unique as a locally based women's leadership initiative in the UK, and we're proud to be a key partner in bringing the programme and network to life.



By the end of 2018/19 the Maker challenge programme had six cohorts, totalling 203 participants, adding up to 5,700+ making hours



The pupils that we have had on the Makerspace course repeatedly came back to me buzzing about the experiences they have had
Teacher, Hammersmith Academy



The What the Tech?! programme has involved over 80 sessions since it started – that adds up to over 930 technology skills hours

PROGRAMMES AND PROGRESS

The Invention Rooms

The Invention Rooms is a unique community space at the heart of our White City Campus. Inside, you can find accessible workshops, design studios, a community café and interactive spaces for innovation and collaboration between the College, the local community and our partners.

Located in a diverse part of west London, The Invention Rooms offers an inclusive environment where people of all ages and backgrounds can learn new skills in science and technology, and get directly involved in research and innovation to address both local and global challenges.

Programmes at The Invention Rooms include a digital literacy programme called What the Tech?! for elderly residents living nearby, and the innovative Maker Challenge programme where local young people aged 14–18 can turn their creative

ideas into reality, from trainers that play music to a bedside lamp that turns itself off automatically when you fall asleep.

The space has also hosted workshops and activities designed to bring researchers and residents together to tackle societal challenges. These have included a ‘hackathon’ to develop solutions for elderly patients with partial hearing loss, and LOL-Lab where local people and researchers together try their hand at stand-up comedy under the guidance of a professional comedian.

The Invention Rooms is a new model for community innovation which has relevance across the UK. It has engaged more than 20,000 local people since it opened in 2017 and has been shortlisted for national awards including the Guardian University Awards 2019.

CASE STUDY

Michael Woof, Local resident and What the Tech?! participant

“I’ve lived just round the corner in Shepherd’s Bush for the last 40 years, and before coming to What the Tech?! I didn’t know anything about Imperial at all, except seeing all these new buildings going up.

I knew I needed help to start using a mobile phone for more than just making a phone call – I wanted to start sending text messages but just couldn’t work out how. I was so far behind, I really felt like I needed to learn, because everything is going online now. Staff at the library showed me the flyer for What the Tech?! which looked really inviting, so I got up the courage to come down to the Invention Rooms.

The help has been fantastic because it’s given me hope now that I can start using



my phone, which I didn’t have before. I am still nervous about it – it will take a while for me to learn something strange that’s all new to me – but I am learning which I am really pleased about.

It’s a really good place. The volunteers and staff are really fantastic. I can genuinely say that, through the help that I have had and the way they have treated me. They’ve been very good.

Recently, I was able to make some text messages to my friend who hadn’t been very well. Being able to do it for the first time ever is amazing because you don’t always want to make a call to bother people. In terms of keeping in touch it’s just changed my life around, I find it much easier now.

In the future, I would love to be able to learn the internet stuff on the phone to find out things. Now I feel like I will be able to learn, but it’s going to take a long time. But the main thing is that I have started the basics and I’ve learnt that I can do that now, which I’m very pleased about. Anything else is a bonus! I would recommend it to anybody, everyone I know who doesn’t know how to use a phone, definitely.”

PATIENTS, CARERS AND THEIR NETWORKS

Imperial’s medical researchers have an ambitious goal: to improve healthcare for patients across the world. But the work we do can only go so far without involving patients, carers and the public, to improve it with their experiences and insights. That’s why they are vital partners in what we do.

There are many opportunities for patients and the public to play a part in medical research at Imperial – from coming up with research ideas, to helping us train researchers on the benefit of involving patients, being involved in groups advising a research project, interpreting research findings from a patient perspective, and communicating to others about research. Patients can help shape all types of research, whether it’s developing medical devices for diagnosis, redesigning a clinical area for better patient experience, or improving innovative therapies and treatments. We are so grateful to everyone that has been involved so far – people around the world could be receiving better care because of their input.

We are always looking to involve more people. We run events such as our People’s Research Cafés to facilitate discussions around health and medicine, and share opportunities online through the VOICE platform. And we support researchers to embed public and patient involvement within their own projects through our Imperial Biomedical Research Centre (BRC) grants scheme and training sessions. Through involvement and engagement, patients, carers and their networks can make an impact on research at Imperial, learn something and meet people along the way.



CASE STUDY

Dr Helen Skirrow, MatImms Research Team, International Centre Child Health, Paediatrics, School of Medicine



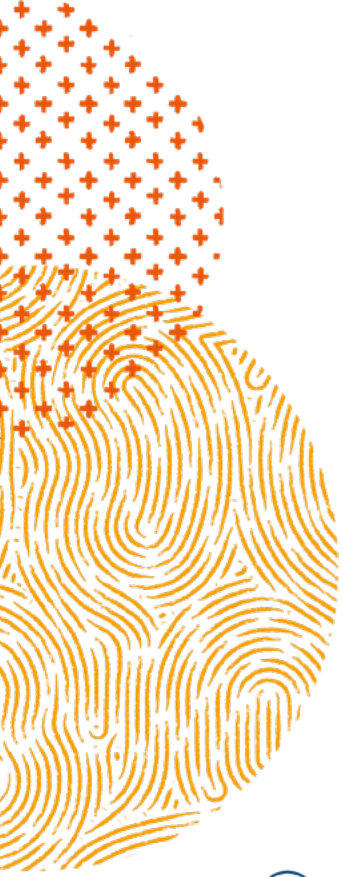
“In the MatImms project, our multidisciplinary research team of midwives, doctors and scientists investigates vaccination in pregnancy to protect newborn babies from preventable infections. We developed the MatImms Smartphone

App to improve vaccine information available, enabling pregnant women and their support networks to make informed choices. We received an Imperial BRC Public Involvement grant to run activities to connect with pregnant women, their friends and family. We wanted to provide an opportunity for women to ask about vaccines in pregnancy, and gain insights to inform both our research and local services. We created informal drop-in ‘Vaccine Conversation’ events for local women. These involved free baby massage workshops and lunch, alongside opportunities to discuss pregnancy vaccines with our team.

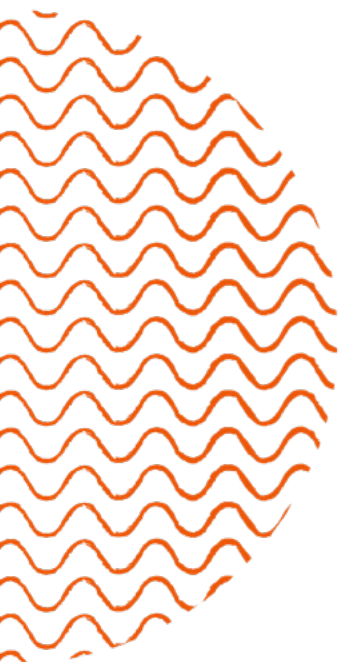
We partnered with the local Mosaic Community Trust after meeting their Director at a workshop run by the Patient Experience Research Centre. By partnering with a community organisation we were able to hold informal events at local venues accessible to local women. As the Mosaic women became partners in hosting the events, the atmosphere was relaxed and the food provided delicious! Thanks to their support each event was well attended by over 20 local women and we continue to collaborate with the Mosaic Trust.

I think all of us who took part feel enthused about public involvement – and most importantly, the feedback provided by the local women attending was overwhelmingly positive. Our experience certainly increased our understanding of local women’s concerns about maternal vaccines, their use of local services, and what information is important to them. Professor Kampmann who leads the project said: “I sometimes feel less connected to the groundwork these days and the public involvement event made me feel very happy that I had not lost any enthusiasm – on the contrary, I found it really empowering and it showed me how important this part of our research is and where the next steps should be.” Professor Kampmann also leads IMPRINT, a growing international maternal immunisation network. These and other projects have highlighted the critical importance of patient involvement to success in this rapidly developing field of healthcare.”





40 young people signed up for our brand new Young People's Network for Involvement in Research



PROGRAMMES AND PROGRESS

VOICE

VOICE is an online platform that allows Imperial researchers to post opportunities for public involvement, connect with new communities and build ongoing relationships. In January 2019, Imperial became a collaborator of VOICE, established at Newcastle University. We believe that the public should have a say in the research that may ultimately affect their lives, and value the insight that only lived experience and public perspectives can bring.

We know that there can be barriers to public and patient involvement, and while it's extremely important, it can be hard to do well when time and resources are limited. Through VOICE we hope to make it easier for researchers to engage diverse audiences. We want members' lived experiences and perspectives to improve our research at all its stages. We hope that the platform will both encourage new researchers to involve the public in what they do, and also inspire more diverse audiences within the public to become involved in our work.

VOICE enables researchers to:

- Access a large and diverse community, quickly and easily
- Use flexible methods of involvement, from polls and surveys to discussion forums and public panels
- Gain insight from the general public, as well as patients and carers with condition-specific experience
- Strengthen funding applications with innovative digital approaches that complement traditional public involvement methods

In contributing their experience, ideas, insights and vision, VOICE members become partners in research, and we are excited to see what it makes possible.

Find out more and sign up as a member at www.voice-global.org



CASE STUDY

Lillie Pakzad-Shahabi *Clinical Trial Coordinator, Neuro-oncology, Department of Medicine*

"I received an Imperial BRC Public Involvement award to run a project with students in Years 9 and 10. We ran practical workshops in a secondary school all about brain tumour awareness, hoping to inspire some of the students to consider working in the field. It was great – students even presented their work from our activities at the Imperial Festival and a national brain tumour conference.

Through this grant, I stumbled across Public Involvement training sessions offered through the Patient Experience Research Centre at Imperial. These workshops helped me to understand the importance of public involvement as early as possible in the design of clinical trials.

I decided it would be useful to involve patients from our clinic to review and inform our plans for the design of two clinical trials around brain tumours. I coordinated a session with clinicians,

patients and family members to share our ideas. We discussed the proposed outcome measures, which of those were most important to the patients and carers, how best to provide information about the trial, which quality of life measures should be reported, and when certain feedback should be collected from patients.

It was great to hear one person say after the workshop: "I have gained the feeling that I could really make a difference".

Initially, I found the idea of chairing the patient and carer meeting quite daunting, but I felt more confident after attending the training where we discussed how to deal with behaviour in groups and other things to consider. Don't be afraid to do public involvement as patients and carers are very interested in research and keen to know what is going on. They will motivate the whole team as they come up with ideas that you may never have thought of!"



PROGRAMMES AND PROGRESS

People's Research Café

We tried out the People's Research Cafés for the first time at Imperial Festival 2018. A hybrid between a science café and a more typical public involvement workshop, it was designed by five Imperial research centres in partnership with patients and members of the public.

Our aim was simple: to give the public a flavour of public involvement by giving them the chance to contribute to real-life research projects. As well as getting fresh public input into the projects, we wanted to try something a bit different and have some fun.

We set up a welcoming environment so that people would feel able to discuss research openly. Cafés have a degree of universality, meaning that the concept can be applied across different sites and audiences. The cafés are developed and facilitated by both researchers and public partners, meaning that they maintain an accessible, informal and equal environment.

Researchers provide a summary of their work and three key questions they would like input on to get the conversation started. Visitors join tables to discuss a research project and share their insights – over a coffee or tea, of course! Coffee jars are filled with thoughts and suggestions, providing input on everything across the research cycle, from study design to implementation. Based on the comments they receive, the researchers involved have already made changes to their projects.

Over 300 people have visited the four cafés we have run so far, including at the Great Exhibition Road Festival this summer and two cafés in White City, which involved members of the community in planning and running the event. With all the new ideas and insights they received, 100% of the researchers who fed back after the last café said they would recommend getting involved in the People's Research Café to their colleagues.



100% of researchers who gave feedback would recommend getting involved



OUR STUDENTS, STAFF AND ALUMNI

We want engagement to be part of the culture at Imperial, and our Societal Engagement team are here to support our people to develop their engagement practice, share their passion, tap into new funding streams, and collaborate with others from within and outside Imperial. We know how hard everyone at Imperial works, and we want to make it that little bit easier to make engagement a reality.

That's why we deliver programmes for staff and students to develop new skills in engagement, to refine ideas and activities, and to keep raising the quality of our public engagement. Our training and support ranges from online resources, to a set of short masterclasses, our annual Engagement Day, and our Engagement Academy. We run awards and seed funds, coordinate networks, and are always on hand to provide engagement advice to staff and students.

We work with our wider Imperial community to develop, embed and guide our Societal Engagement strategy. Bringing together senior stakeholders from across Imperial, our Engagement Strategy Group lead the vision and future priorities for this area of work. Our Societal Engagement Champions network and Engagement Practitioners network facilitate a dialogue with staff in academic departments. By working in an open and connected way, we try to make sure that centrally based programmes meet the needs, concerns and interests of those across the whole College.

Finally, we use thoughtful and robust evaluation to monitor the effectiveness of our initiatives, identify ways to improve, and understand the impacts of our work. You can see the changes we hope to make and the ways we measure them in our Outcomes Table (see page 22). Through a reflective approach we can understand and demonstrate the progress we are making in empowering people through engagement with science, technology, engineering and maths.

PROGRAMMES AND PROGRESS



Engagement Academy

We run a suite of training and skills development opportunities around engagement at Imperial. The most in-depth of these is our Engagement Academy, an innovative seven-day course which takes place over six months, and involves seminars, practical workshops and panel discussions. The programme is delivered in collaboration between Imperial's Public Engagement team and Science Communication Unit.

The Academy focuses on discussion and building community rather than imparting knowledge. It is about supporting individuals to develop their identities as public engagement practitioners, and to grow their skills, ideas and confidence. It is also an important way for us to listen to our colleagues across the institution. Sessions cover themes from the role of science within culture, to inclusivity and diversity in science, writing and news media, exhibition creation, podcasting, and evaluation. As a group we visit other engagement spaces, hear from internal and external experts, and workshop ideas.

Thirty-one members of staff have completed the Academy so far across the first two cohorts, including researchers, teaching fellows, centre managers, research technicians and coordinators from a range of departments. Participants are supported to work on an engagement project of their own between the sessions. It has been rewarding to see these ideas come to life – whether a schools workshop, festival activity, competition, game, online video or comedy set. We continue to be inspired by what participants come up with and look forward to meeting the next cohort!



19 members of staff graduated our second Engagement Academy in 2019

Anandha Gopalan, *Principal Teaching Fellow, Computing*

"It is humbling to have won a President's Award for Excellence in Societal Engagement – there are some amazing people on the list of winners and I feel this level of recognition at the College is truly special to be part of.

Public engagement is very important to me – I see it as just a small way to give back to the community. As scientists, it is a moral duty to explain our research and involve the public since most of our research is publicly funded. This is especially important in the current times when there seems to be an increasing distrust of 'experts', and perceptions of scientists in their 'ivory towers'.

I run computing activities with many community organisations and schools. One of my latest projects was Discover Computing, which was designed to give students (and families) from under-represented minorities an insight into computing to pique their interest towards pursuing it for their studies. The sessions were very well attended – we couldn't actually fit everyone in who

wanted to take part – so we are planning more for the new year. Imperial provided some seed funding for this, which has been extremely helpful.

I've been involved in engagement for a long time but over the last year or so we've had some real successes – running these workshops being one of them! Working with Jackie Bell, our Senior Teaching Fellow for Public Engagement, and Ben Glocker, our academic champion for public engagement, we are hoping to get more staff and students involved. I've given talks about what I do, including at the School Governors' Network lunch, and have had some great discussions with colleagues.

I also took part in the Engagement Academy this year, which was an excellent experience. It helped me flesh out my ideas and think along different lines. It also helped me think of other potential activities in the future. Most importantly, it showed me there is a big community in the college and put me in touch with others as passionate about this as I am!"



PROGRAMMES AND PROGRESS

Societal Engagement Seed Fund

Often a small amount of money can go a long way in public engagement. We support people to get their ideas off the ground through our annual seed fund. Each year we support up to five projects in diverse areas of societal engagement for around £2,000 each. We introduced this scheme to enable more staff to participate in societal engagement, to enhance the diversity of activities taking place, to spark new ideas and collaborations, and to broaden the reach of our engagement to new public, community, school and patient groups.

The fund has supported a wide range of projects, from science activities in supermarkets, to drama workshops with young people living with HIV, animations about tuberculosis, arts engagement with street children in Tanzania, and

a multisensory journey into the universe. Project leads told us that they learned new engagement skills, gained inspiration, developed partnerships, better understood practicalities, changed their attitudes and perceptions, and became aware of new possibilities for funding. Not to forget having a lot of fun!

The Societal Engagement seed fund has supported 14 projects so far. We also run other seed fund schemes: one with a focus on community engagement, inviting proposals from local residents and organisations, and another focused on patient involvement to support researchers in healthcare. These schemes are a rich source of inspiration, ideas and innovation, with new and surprising projects emerging each round.

CASE STUDY

Ishita Marwah, PhD student, National Heart and Lung Institute

“Academia exists within and for the benefit of society, and the general public are therefore crucial stakeholders in the scientific process. I think engaging with the public helps us scientists understand this better, helps our work to meet societal expectations and needs, and helps the public feel more involved and aware of science. So it is a win-win situation for all!

I was awarded Societal Engagement Seed Funding for my project, Translating TB, where we created animations about latent TB and the importance of testing. Our film has now been translated into eight languages and is displayed in GP waiting rooms across London. Experiencing how people from ten

different parts of the world connected over health, well-being and science was very rewarding. I also learnt that the traditional definition of hard-to-reach communities might be more about how our approach to things makes it hard for us to reach them, and not the attitudes of the communities themselves who are often eager to reach out.

In 2018 I was awarded a President’s Award for Excellence in Societal Engagement. I suddenly saw my picture on the screen and the next thing I knew, I was with Alice Gast and she was looking for a photographer! I felt very happy, very appreciated, and so pleased that Imperial is giving societal engagement the recognition it deserves.

I’ll definitely be doing more public engagement – I’d like to build on collaborations I’ve established and apply for more funding. With support from our lovely Public Engagement team, I did make it to the final interview stages for the prestigious Wellcome Engagement Fellowship Scheme earlier this year.

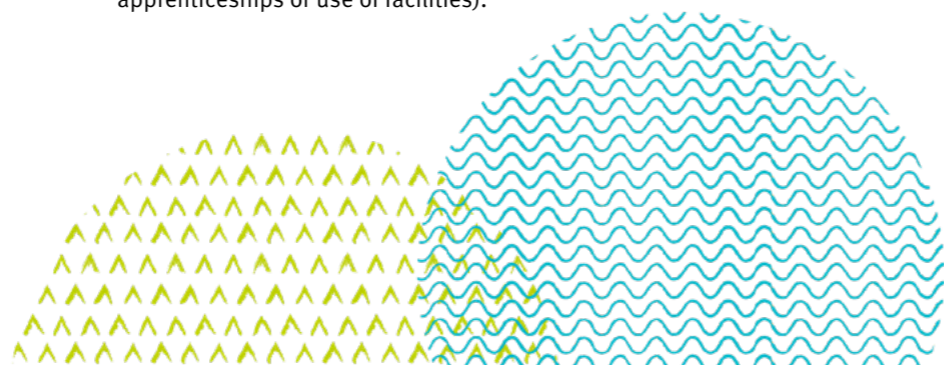
As a result of my public engagement, I’ve become a more aware person and a more conscientious scientist. I’ve also made friends and connections that will last the rest of my life. So it has influenced not only my work, but my life.”



MEASURING PROGRESS AGAINST OUR STRATEGY

Objective	What changes are we hoping to make? Key outcomes	How will we measure this? Example impact measures
1 To support schools in their mission of raising pupils' ambition and attainment in STEM	<ul style="list-style-type: none"> Improved teacher confidence in STEM, especially at primary schools. Positive outcomes for participating pupils around increased attainment, ambition and awareness of STEM subjects and careers. Parents and carers become more familiar with decision-making around subject choices and careers. 	<ul style="list-style-type: none"> Instances of parent and pupil participation (e.g. accessing resources or attending sessions). Feedback from participating teachers shows increased confidence and positive influences on classroom practice. Feedback from participating pupils and parents shows positive outcomes including about pupil ambitions and awareness. Follow-up data around pupil attainment (e.g. exam results). Data on engagement (including retention) with our TWIG CPD programme.
2 To increase diversity in our student body	<ul style="list-style-type: none"> Higher number of students from disadvantaged and underrepresented communities engaging with and accessing Imperial. Greater national diversity in student body (e.g. from White City communities and across the UK). Greater international diversity in student body (e.g. from a wider range of countries). 	<ul style="list-style-type: none"> Information about school pupils participating in outreach activities and visits. Information about school pupils applying to Imperial and entry rates. Number of enrolments at Imperial from disadvantaged and underrepresented communities. Levels of awareness and perceptions of studying at Imperial within target audiences.
3 To nurture a strong sense of social responsibility within our students	<p>Current and graduating students:</p> <ul style="list-style-type: none"> show awareness of the evolving relationship between science and society understand the role of universities and research in tackling societal challenges value public engagement within their field of study and are motivated to get involved appreciate that societal engagement can help them to understand different perspectives, experiences and inequalities. 	<ul style="list-style-type: none"> Student feedback from societal engagement training (e.g. Graduate School courses). Feedback from students participating in Outreach programmes (e.g. STEM activity leaders in Reach Out Lab and Makerspace). Feedback from students participating in our public programme (e.g. volunteering at the Festival and Lates).
4 To be a trusted source of STEM expertise – locally, nationally and globally	<ul style="list-style-type: none"> Varied and successful collaborations locally, nationally and internationally. Public visitors, school teachers, community members and patients see Imperial as approachable, inclusive and trustworthy and its work as relevant and evidence-based. Imperial has a positive public media profile. Our societal engagement work is shared and recognised by our funders and peers. 	<ul style="list-style-type: none"> Effective partnerships developed with positive feedback from collaborators (e.g. the Festival partners and community projects in White City). Public visitors (e.g. to the Festival and Lates) experience informative and inspiring interactions with staff and students. Recognition from funders and peers (e.g. successful grants, receiving awards, positive communications and publications, and new invitations to partner).
5 To create innovative opportunities for more people to develop STEM skills and ideas	<ul style="list-style-type: none"> Increased confidence in STEM amongst public participants, including from local communities. Increased skills in developing ideas, physical and digital making, amongst public participants, including from local communities. Participants in our technical or making programmes explore other qualifications or awards, or access further education, apprenticeships or employment. 	<ul style="list-style-type: none"> Participation data for technical and making programmes, such as numbers attending sessions and accessing online resources. Participants in making and technical programmes (e.g. Maker Challenge) feedback increased confidence. Feedback from participants indicates progression or the intention to do so (e.g. pursuing qualifications or training, apprenticeships or use of facilities).

Objective	What changes are we hoping to make? Key outcomes	How will we measure this? Example impact measures
6 To embed public engagement in research projects and research culture at Imperial	<p>Staff and students:</p> <ul style="list-style-type: none"> engage relevant public stakeholders as early as possible in research design value the importance of engagement to their field of work take part in genuine two-way engagement where possible and have a positive experience report impacts of engagement on their research or work, including new perspectives, directions and collaborations feel that the culture at Imperial is supportive of and conducive to participation in societal engagement. 	<ul style="list-style-type: none"> Proposals for research projects and funding include meaningful public engagement and/or patient involvement, and plans receive positive feedback from funders. Societal engagement is embedded within departmental strategies, roles and support, and reward and recognition structures value engagement (e.g. promotions, personal development reviews). Feedback demonstrates longer-term impacts of engagement activities (e.g. through evaluation of the Festival, awards and Societal Engagement seed fund). Staff survey on Societal Engagement reports impacts of engagement work and positive attitudes towards engagement, including support from Department and College.
7 To develop accessible and inspiring programmes and platforms that empower people in topical science issues	<p>An increasingly diverse audience participate in our public programmes and research.</p> <p>Public, staff and student participants:</p> <ul style="list-style-type: none"> have a positive and empowering experience and are motivated to participate in other events feel that they have had the opportunity to contribute to conversations about issues that matter to them have lasting positive outcomes (e.g. increased interest in STEM, new skills, understanding of the scientific process, awareness of Imperial's research). 	<ul style="list-style-type: none"> Information about participants (e.g. numbers attending, age, gender, level of previous education) in programmes (e.g. Festival, White City events, Peoples' Research Cafés). Feedback (from public and staff/student contributors) about the programme including about the experience itself and resulting outcomes (e.g. evaluation of Festival and Lates). Numbers and feedback from those involved in committees and advisory groups (e.g. Young People's Advisory Network for health research). Utilisation of VOICE online platform by members of the public and Imperial researchers to share and access engagement and involvement opportunities (e.g. user figures and online engagement).
8 To develop the resources, infrastructure and governance to enable our staff and students to deliver effective public engagement	<p>Staff and students:</p> <ul style="list-style-type: none"> feel equipped and motivated to get involved in engagement activities hold positive attitudes towards engagement (e.g. value the importance of engagement to their field of research/study, and as an opportunity to gain insight from a diverse range of views) feel supported to carry out engagement as part of their work through the provision of support, resources and training. 	<ul style="list-style-type: none"> Numbers and diversity of staff/students accessing capacity building sessions and resources (e.g. attending training, downloads of resources and applications to seed funding). Numbers and diversity of staff/students involved in public programmes. Feedback from those attending courses/using resources – including whether course met needs and expectations, and positive outcomes on understanding, confidence and skills. Levels of staff/student engagement activity and attitudes across the college (e.g. as measured through the Societal Engagement staff survey, reports of departmental engagement activity).
9 To foster an ethos of working in partnership with community and public groups to tackle shared societal challenges	<ul style="list-style-type: none"> Staff and students seek out relevant and appropriate community and public collaborators for their engagement work and see the value in working in partnership. Programmes are enhanced by the involvement of community and public groups (e.g. in the development of activities). Community and public groups have a positive and empowering experience through partnering with our staff and students (e.g. in the development of new skills, understanding and connections). Partnerships are meaningful and sustained for both Imperial and public/community groups. 	<ul style="list-style-type: none"> Information including the numbers, diversity and nature of partnerships in engagement activities across the College (e.g. through departmental champions). Feedback from collaborators with whom we run programmes (e.g. the Festival, White City projects and Peoples' Research Cafés). Programmes created through partnerships from the outset (including the involvement of teachers in Outreach programmes, and community partners in White City), as evidenced in funding proposals, advisory group membership and programme delivery.



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www.imperial.ac.uk/be-inspired/societal-engagement