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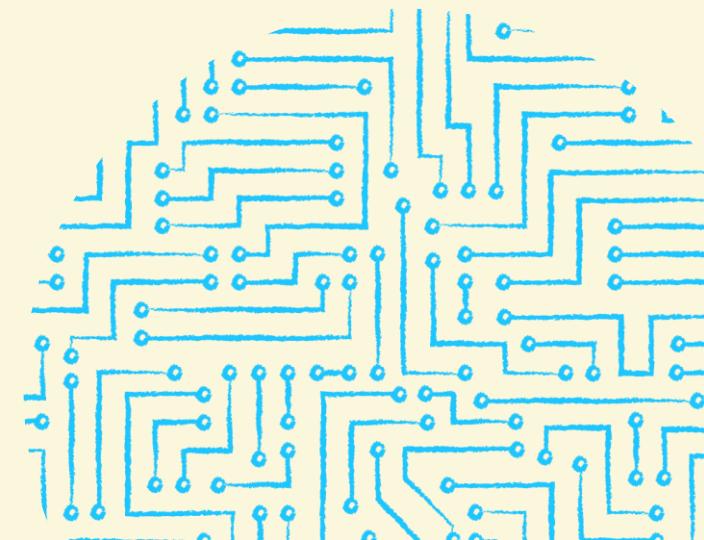
Societal Engagement



Engagement Academy 2024-2025

Project Summaries

Societal Engagement
30/04/2025



Engagement Academy

Overview

Each cohort of this staff training programme explores the evolving relationship between research and society to develop their public engagement practice through study, active experimentation and reflection.

The [Engagement Academy](#) is delivered by Imperial's [Science Communication Unit](#) and [Public and Community Engagement Team](#).

It is accredited by [The Institute of Leadership](#) in line with the Higher Education Academy.

What does the Academy involve?

- Seven days of seminars, practical workshops, visits and group discussions
- Internal and external speakers
- Reading and activities between sessions
- Developing, delivering and evaluating their own practical engagement activity with support and feedback from session leaders, mentors and peers

2024-2025 Staff

Engagement Academy

Science Communication Unit

A team of practitioners and researchers delivering internationally-renowned masters courses which combine media training with academic perspectives.

Dr Felicity Mellor (she/her)

Dr Julia Pitts (she/her)

Dr Kanta Dehal (she/her)

Gareth Mitchell (he/him)

Public and Community Engagement Team

Central team of practitioners supporting staff and students to engage diverse audiences with Imperial's work through exchanging ideas and experiences.

Vicky Brightman (she/her)

Dr Amy Seakins (she/her)

Charlotte Coales (she/her)

Maria Serveta (she/her)

2024-2025 Cohort

Engagement Academy

Emily Armstrong (she/her), MRC Laboratory of Medical Sciences

Daria (Dasha) Berezina (she/her), Chemistry

Maria Sabina (Sabina) Cerullo (she/her), Brain Sciences

Elisa Collado Fregoso (she/her), Energy Futures Lab

Claire Dilliway (she/her), Earth Science and Engineering

Emma Griffiths (she/her), Residential Services

Alexandra Halbish Rayner (she/her), Research Impact Management Office (RIMO)

Navta Hussain (she/her), Chemical Engineering

Jose Louro De Sousa (he/him), Library Services

Shamsuddeen Muhammad (he/him), Computing

Alison Perry (she/her), The George Institute of Global Health

Flo Reeve (she/her), Bioengineering

Daisy Robinson-Smyth (she/her), Communications Division

Ioanna Stefani (she/her), Infectious Disease

Inaam Ullah (he/him), Life Sciences

Aly-Joy (Joy) Ulusoy (she/her), Civil and Environmental Engineering

Cecylia Watrobska (she/her), Centre for Environmental Policy



Project summaries

Academics developed a range of projects to engage audiences

Emily Armstrong (she/her)

MRC Laboratory of Medical Sciences

Science Career Top Trumps®: Dive into the world of science and innovation

Discover the diverse roles that drive research at the MRC Laboratory of Medical Sciences — from the dedicated students to the brilliant biologists and all the support staff who make it possible. Each card showcases unique skills and career paths, making learning about potential careers engaging and fun!

Top Trumps® is a game that lists numerical data that players compare with the aim of ‘trumping’ their opponent by having a greater value. The winner gains the opponents cards with the game continuing until only one player holds all the cards.

The game caters to different types of learners and it is educational, easy and familiar to both children and adults. Several scientific institutes and societies have created their own versions.

Science Career Top Trumps® aims to educate children and teenagers who are interested in science about all the roles that exist in a research institute, helping them to make important choices about their future.



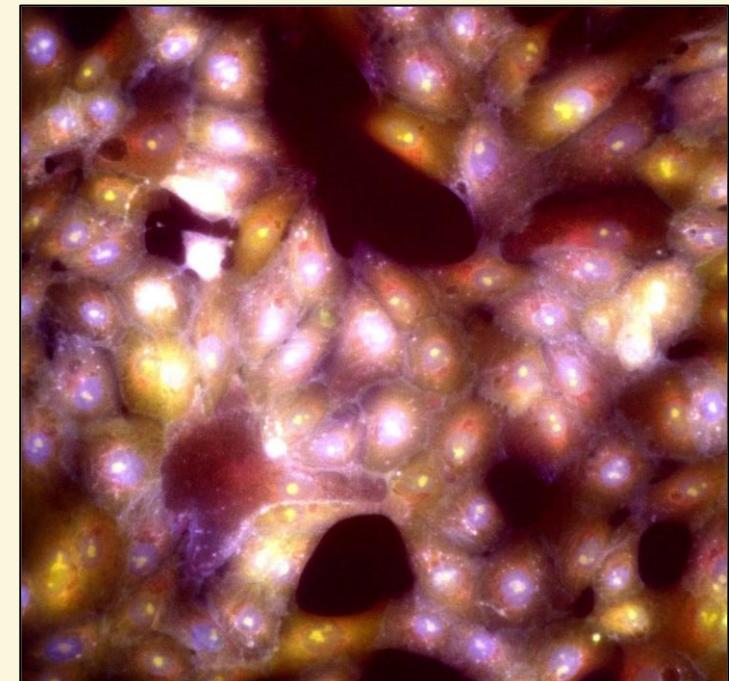
Daria (Dasha) Berezina (she/her)

Chemistry

I am fortunate to work in a large, diverse group led by Professor Tate, where we constantly pursue cutting-edge ideas and acquire state-of-the-art equipment to accelerate research. Collaboration is at the heart of our approach. With the recent launch of the Imperial Drug Discovery Hub we proposed to showcase it at the Great Exhibition Road Festival 2025.

I connected colleagues interested in participating, initiated discussions around the engagement concept, and continue to manage the project. Our initiative introduces Cell Painting—a robotic method that simultaneously stains and captures images of various cellular structures, such as nuclei, mitochondria, and the cytoskeleton.

Our activities aim to spark curiosity and inspire children and young adults by teaching them about disease phenotypes and the advantages of working with robotics. We will create an engaging experience through vivid cellular imagery and robot races, making science exciting and accessible.



Maria Sabina Cerullo (she/her)

Brain Sciences

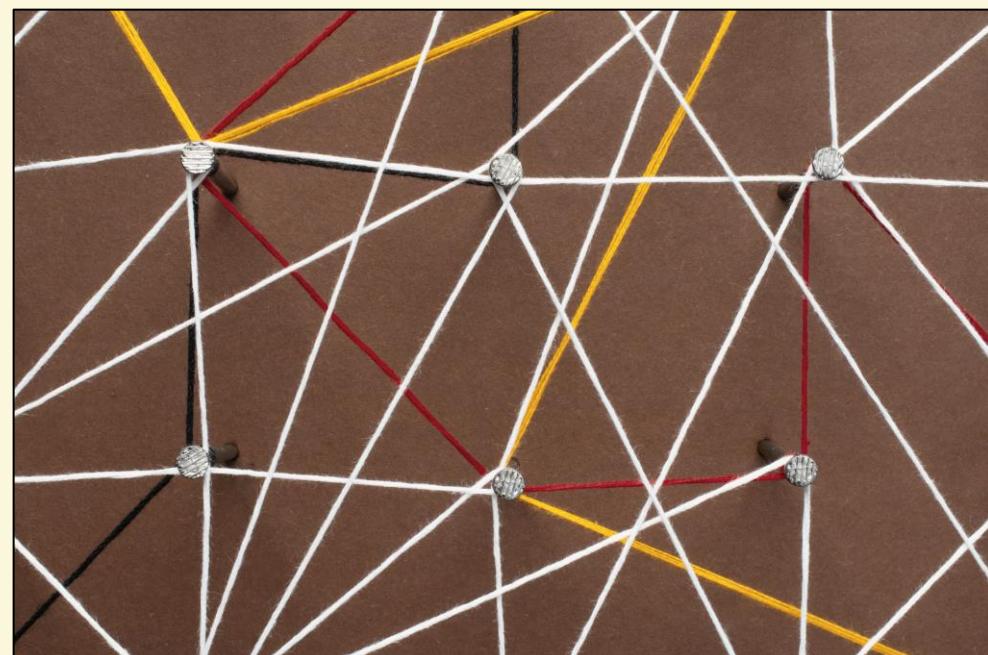
Threads of Connection

An interactive, hands-on workshop that invites participants to explore the wonders of the brain through storytelling and craft. Designed to be fun, inclusive, and accessible, the activity sparks curiosity about how our brains work, particularly how we form memories and how neurons connect with one another.

Through playful and creative tasks, participants will learn about neural connectivity and memory. They will have the chance to make their own neuron-inspired keepsake to take home, transforming complex scientific ideas into something personal and tangible.

By blending science with creativity, the experience aims to spark curiosity about how the brain works, raise awareness of brain health and neurological conditions, and inspire ongoing interest in neuroscience and research.

Threads of Connection will be presented at this year's Great Exhibition Road Festival, welcoming curious minds of all ages to discover the beauty and complexity of the brain.



Elisa Collado Fregoso (she/her)

Energy Futures Lab

My activity will demonstrate the concept and importance of room insulation, with two activities to carry out at the Invention rooms with families. It will have a hands-on experience for the children to demonstrate the importance of scientific discovery, and it will also aim to show the impact of insulation in terms of energy savings and CO₂ emissions for the adults.

The use of state-of-the art coatings will be assessed in terms of health and safety in collaboration with an Imperial startup, Emissiv which aims to commercialize transparent radiative coatings with a 3 - 5°C drop in temperature.

The activity will be assessed with a combination of Menti and post-it feedbacks, and the learnings will be applied for a larger-scale activity for the Great Exhibition Road Festival 2026.



Claire Dilliway (she/her)

Earth Science and Engineering

Community engagement: using AI to improve urban health

This work integrates AI, social sciences, health, data analytics and systems engineering in search of new solutions to revolutionise urban health. We are developing a flexible, AI-based systems framework to enable the holistic optimisation of urban health and sustainable environments. Enabling, for example, the optimisation of green infrastructure placement to avoid the unintended health impacts of trapped pollution.

We will run 3 case studies to pilot this framework and plan to involve local communities throughout the process to ensure that their priorities are reflected in the solutions piloted to improve local support and participation. Engagement Academy gave me the opportunity to explore the most effective ways in which local communities could participate in this work from participatory workshops and co-design sessions to using our app for collecting smart wearable device data, empowering residents and motivating them to contribute to data collection and analysis.



Emma Griffiths (she/her)

Residential Services

I have been working on a “Field Trip Pack” for schools, to introduce children aged 11 to 13 years to some of the projects Imperial Students at Silwood Park participate in as part of their studies.

The Lichen Survey is designed to be done anywhere and with no specialist equipment but uses skills Silwood Park students need for their international fieldtrips, taking place in a range of destinations, from tropical rainforests to Antarctic tundra.

The aim is to encourage young people to see scientific research as something accessible to them, that doesn’t just happen in a lab. At a time when many young people report feelings of climate anxiety, the project aims to provide some positive insight into the work being done in environmental research and conservation.



Alexandra Halbish Rayner

Research Impact Management Office (RIMO)

Supermarket Sweep: CoDiet Escape Room

CoDiet is one of the research projects I provide communication and dissemination support for in my role as Project Communication Coordinator with the Research Impact Management Office (RIMO). CoDiet is an international research project that aims to combat diet-related diseases through innovative monitoring technologies and personalised nutrition.

The activity I've been developing through the academy is a pop-up escape room. The idea is a group of up to 10 people take on the role of a humanoid shopping assistant who is completing an induction in a futuristic supermarket. The team must work together to race against the clock, solving a series of challenges based on key themes from the CoDiet project. The aim of this activity is to introduce a wide range of audiences to the project whilst providing a fun and interactive experience around science.

The escape room will exhibit for the first time at the Great Exhibition Road Festival in June 2025.



Navta Hussain (she/her)

Chemical Engineering

We are celebrating International Women's Day by inviting secondary school students to join members of our student cohort as they delve into the journey behind their transition from school to Engineering.

Drop-in and have a chat about:

- How and why they chose STEM/Chemical Engineering as a subject
- What was their journey from early teens to university - from the decision-making process and extracurricular activities - to support this journey
- What life is like as a young woman studying in STEM and helpful tips

Free merch and food available, along with lots of fun activities and networking!

Open to:

Event is targeted towards children aged 12 to 17. We are particularly keen to engage with young girls with an interest in STEM, and have a good number of students who identify as women lined up to share their journey on the day.



Jose Louro De Sousa (he/him)

Library Services

Turning Talking Tables: Involving Minds and Ideas

Within the framework of the Beyond Open Research (BOR) project, “Turning Talking Tables: Involving Minds and Ideas” aims to explore how public involvement can be woven into fundamental research. This activity, directed to an audience of researchers and community partners, will take place on 10 July at the Invention Rooms (White City Campus, Imperial College London).

Participants will be divided into groups with balanced numbers of researchers and members of the public, a facilitator and a note-taker. Facilitators will help guide the discussion and make sure everyone participates. Note-takers will keep a record of the debate – main themes, ideas and challenges – which will also enable a more granular assessment of the activity.

Building on the findings of BOR project (phase 1), "Turning Talking Tables" fosters collaboration between researchers and community partners, integrating diverse perspectives to enhance research quality and ensure societal benefits.



Shamsuddeen Muhammad (he/him)

Computing

Training Africa's Next Generation of AI Researchers

As part of my commitment to advancing equitable access to AI education, I delivered an intensive three-week course in Natural Language Processing (NLP) at the African Institute for Mathematical Sciences (AIMS) in Cameroon. AIMS is a pan-African network of centres offering fully funded postgraduate training to talented students across the continent. With hubs in six African countries, AIMS is building the next generation of STEM leaders.

Each day, I taught two-hour sessions to a cohort of exceptional students, many of whom rank among the highest achievers in their respective countries. The students' curiosity, critical thinking, and intellectual rigor were truly inspiring. This teaching experience stands out as one of the most rewarding of my academic career.

My engagement at AIMS reflects my broader mission to empower African researchers and expand NLP capacity in underrepresented regions. I am grateful to AIMS Cameroon for this opportunity and look forward to future collaboration.



Alison Perry (she/her)

The George Institute of Global Health

Women's health research is thought to benefit from patient and public involvement and engagement (PPIE). So called PPIE is thought to begin to address deep-seated inequities and under representation of commonly marginalised groups, including women. Within the Bia (Blood in Action) Project, we have taken time and creativity to ensure our programme of engagement for the project is one that embraces the intersection of arts and health and meaningfully incorporates the voices and lived experience of different people, differently.

To celebrate this activity, we now want to capture the whole of the project through the co-creation of a play and share it at a local theatre, Bush Theatre in West London. Entitled, “£25 And a Biscuit”, the play would be a provocative, yet light-hearted, opportunity for members of the public and creative partners to inform, influence, and share insight on topics related to women's health engagement and research.



Flo Reeve (she/her)

Bioengineering

The project I am working on aims to strengthen our school connections by sending ambassadors to schools they have existing ties or connections with. My manager is currently putting together workshops, to send ambassadors into schools to deliver these.

My contribution is that I want to look to recruit ambassadors from widening participation (WP) backgrounds, to go into schools where there are potentially students from WP backgrounds. Ideally, ambassadors will go into schools in similar areas to where they lived/studied. I will create a presentation template for ambassadors to share their personal experiences and journey to Imperial, with the aim of helping to inspire young people from similar backgrounds to believe that they can also go on to study STEM at Higher Education level.



Daisy Robinson-Smyth (she/her)

Communications Division

Outreach sessions for internal staff

I work on an Internal Change programme that seeks to enhance the student experience at Imperial, whilst also supporting the staff who engage with students. We are looking to raise awareness of the programme and invite feedback from staff, encouraging and two-way dialogue on the changes being made.

As part of the Engagement Academy, I have developed a plan for a “Drop In Breakfast” session; inviting staff to hear a brief presentation about elements of the programme that are relevant to them, before opening the floor to questions and discussion.

I have spoken to colleagues within Departments to refine the idea, and plan to run a pilot of the session later in the year. If the pilot is successful, we hope to roll out sessions across all Faculties within the university.



Ioanna Stefani (she/her)

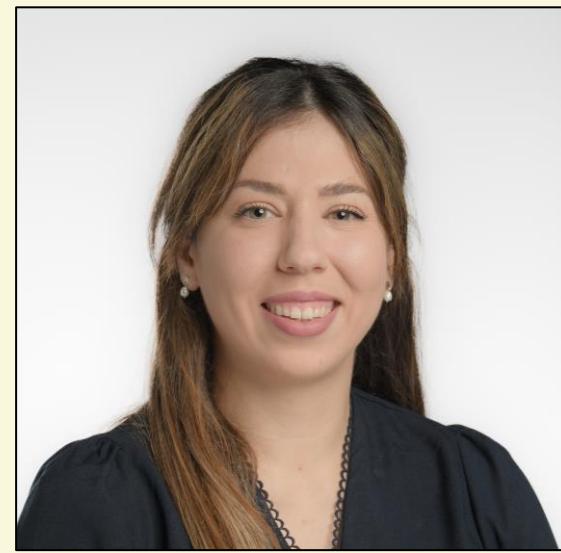
Infectious Disease

Be a scientist for a day

This activity aims to show the spectrum of tasks the daily life of a scientist encompasses.

School-children (3 different target groups) are selected based on their own biological question they wish to address. To help them come up with ideas, we suggest topics related to the host labs' projects that can be tailored to their age groups. Volunteer-leading scientists get paired with the participating students (in 1:1 ratio), they meet with them online in advance for a 1-hour video call to help them navigate to their "suggested literature" and then they both shape the project to be studied on the day. Students then visit the lab and try to answer their question using (whenever feasible and assisted) real equipment. Then, students analyse the results and draft their paper for submission (including graphs, figures and their conclusions).

The evaluation aims to understand how successful this activity was in getting students more familiar with scientists' daily routine and will inform the frequency of the programme in the future. Evaluation methods include: the papers produced by students, feedback from both volunteers and students through questionnaires.



Inaam Ullah (he/him)

Department of Life Sciences

Bringing Science to Life: A Podcast for Curious Minds (Podcast Title: Science Life)

Science isn't just something that happens in laboratories — it's woven into our everyday lives. From the chemistry behind your morning coffee to the biology guiding your heartbeat, science shapes the world around us.

In our upcoming podcast, we'll dive into the fascinating stories of scientists — their struggles, breakthroughs, and discoveries that changed our understanding of life. Through conversations with experts, we'll unravel complex ideas in simple, relatable language. Whether you're a student, professional, or just someone with a curious mind, this podcast will connect you to the science that's shaping our future.

Join us as we explore the wonders of the natural world, one captivating story at a time. Science isn't just about facts — it's about people, passion, and the power to change lives.



Aly-Joy (Joy) Ulusoy (she/her)

Civil and Environmental Engineering

Saving water with data: an immersive leak hunt

Did you know that 25% of London's drinking water supply is lost to leaks, before it even reaches homes and businesses? With thousands of miles of underground pipes, traditional detection methods can be slow and costly — but emerging technologies are transforming the way our water utilities tackle water loss.

In this fun, interactive experience blending live role-play and data-driven problem-solving, you'll step into the world of modern leak detection and put these innovations to the test. You will analyse real-time flow and pressure data collected from a drinking water supply system in the UK to detect and locate a hidden underground leak.

Engaging with live polling, you will work together with fellow participants to narrow down the search area and crack the case. Along the way, you will learn how research is revolutionising leak detection and why smart water management is key to securing London's water future.



Cecylia Watrobska (she/her)

Centre for Environmental Policy

Science Café

Scientists and members of the public rarely have an opportunity to sit down with one another and just talk. Yet these conversations benefit both sides, offering fresh insights and different perspectives that can spark new ideas and further discussions.

The Science Café aims to facilitate such conversations in an informal setting. Individuals or small groups of participants will be invited to grab a drink and sit down with a scientist. The conversation will centre around the scientist's current research; other than that, there is no set structure or time limit. Conversations might focus on explanations of underlying concepts, discussions of real-world applications of novel results, or the future use of a new technique.

I aim to hold the Science Café at science festivals and similar events, inviting around six scientists from a diverse range of STEM disciplines to participate in each event.



IMPERIAL

Societal Engagement



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