

IMPERIAL

Early Career
Researcher Institute



ECR Showcase 2025

Welcome to the Early Career Researcher Showcase 2025!

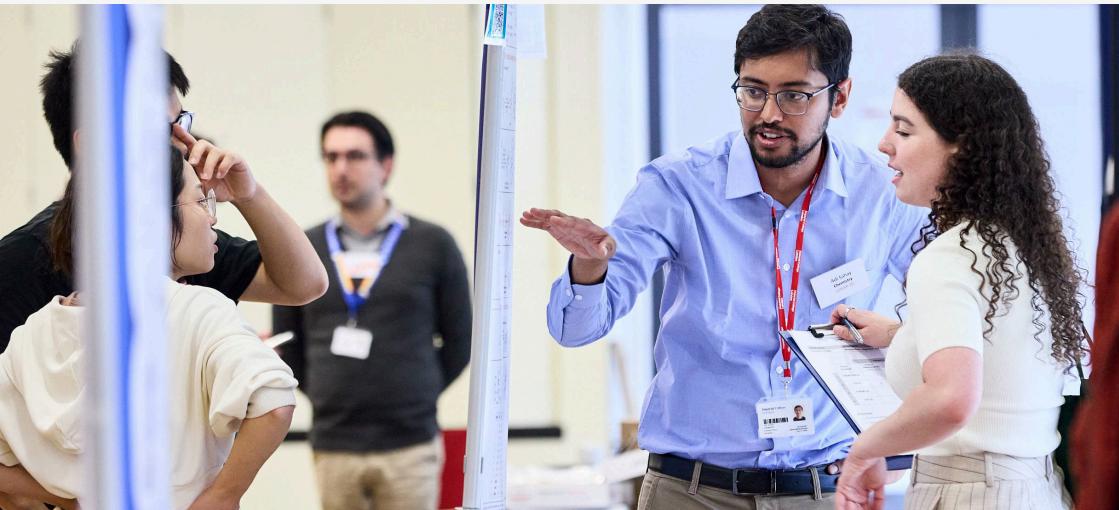
This inaugural event is a celebration of the research being carried out by the Early Career Researcher community at Imperial College London.

Come and meet our amazing ECRs as they showcase their research and compete for prizes!

Programme of Events

11:00 - 13:00	Judging Session & Open Exhibition	SAFB 120-122
13:00 - 14:00	Participant Lunch	SAFB Foyer
14:30 - 15:30	Keynote Speech & Prize Ceremony	SAFB G34 LT
15:30 - 16:30	Drinks Reception & Networking	SAFB Foyer

ECR Showcase Entries



Aeronautics

AERO 1 - Charlie Aveline

Shape-changing mechanical metamaterials for cancer patient implants

AERO 11 - Yixin Mo

Reconstructing turbulent flows from sparse measurements with physics-constrained neural networks

AERO 12 - Flavio Savarino

How do shock-induced separated flows transition to turbulence?

AERO 13 - Maria Luisa Scarpa

Smart Control, Safer Robots: Differential Games in Action

AERO 14 - Ningyuan Fu

Shaping the Flow: Elastic Metamaterials for Drag Reduction

Bioengineering

BIO 2 - Ioana Esanu

The human body as a circuit board: or, what it takes to make a blood vessel



BIO 15 - Pooja Kaur

Designed For Impact: Targeted Delivery of Cancer Therapies To Activate the Immune System

BIO 16 - Margherita Montavoci

Teaching the Immune System How to Fight Cancer

BIO 17 - Amelia Clark

Fungi-on-a-Chip

Centre for Languages, Culture & Communication

CLCC 18 - Gemma Ralton

Media framing of Generative AI across the UK Political Spectrum

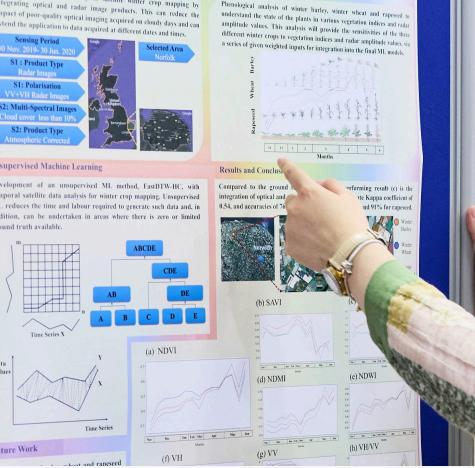
Chemical Engineering

CHEM ENG 19 - Suhaib Nisar

Optimising the fractionation of biomass with ionic liquids

CHEM ENG 20 - Robert Lever

Understanding the burden of producing therapeutic antibodies



Chemistry

CHEMI 21 - Shradda Vadodaria

Drugging the “Undruggable” in Cancer

Civil & Environmental Engineering

CIV ENG 3 - Atif Rasheed

Shaking Less, Saving More: A Low-Cost Way to Stop Buildings from Collapsing in Earthquakes

Imperial Business School

IBS 22 - Shutian Liu

When Nature Meets Social Class: How Genes and Parenting Reinforce Health Inequality

Infectious Disease

ID 4 - Tochukwu Anyaduba

Re-engineering Point-of-care
Molecular Diagnostics for Cost
Reduction in Sub-Saharan Africa

ID 23 - Samuel Channon-Wells

Beyond Symptoms: AI Maps
Children's Diseases Through Blood
Patterns

Mathematics

MATH 5 - Jeffrey Tse

Is this really the cause?
Instruments can help!

MATH 10 - Ella Orme

How can we get the most
information out of a study?

MATH 24 - Timothy Kang

Signature Dimension Reduction

MATH 25 - Lucas Moschen

Steering Crowd-like Systems:
An Optimal Control Approach

Mechanical Engineering

MECH 26 - Yuankai Ren

Seeing Inside Batteries: Separating
Structure and Material Changes Using
Ultrasound



MECH 27 - Catarina Duarte Nunes

What are my ammonia and hydrogen up to?

MECH 28 - Natasha Waddell

Clear Coatings for the protection of historic
ferrous objects stored in aggressive environments

Metabolism, Digestion & Reproduction

MDR 29 - Tanweer Beleil

The Good, the Bad and the Ugly

MDR 30 - Belen Gimeno Molina

Legally bound: the interaction case of immunoglobulins and vaginal bacteria

MDR 31 - Jiwoo Choi

Next-Generation Shape and Stiffness Programmable Medical Devices: Thermally Drawn Shape-Memory Polymer Fibres in Medicine

MDR 32 - Jennifer Fisher

Improving personalised care in inflammatory bowel disease

National Heart & Lung Institute

NHLI 6 - Anies Makhdomi-Sohi

From Frankenstein's Monster to Cardiac Research



NHLI 33 - Aaraby Ragavan

Recovery from heart failure – is there such a thing?

School of Public Health

SPH 7 - Pallavi Nair

Building Bridges in Dementia Care: Empowering Communities Through Human Connection and Innovation

SPH 34 - Kimberley Foley

How can we use electronic health records to improve children's health?

SPH 35 - Jo Craddock

How adults born preterm view their health and what kind of support they need

SPH 36 - Husa Aldossary

When Good Recipes Turn Out Bad: Fidelity vs. Adaptation in Practice

Surgery and Cancer

S&C 8 - Ahmed Alboksmaty

"Hey Doc, Are You Listening?!"

S&C 9 - Tricia Tay

Engaging older adults in digital interventions for healthy ageing

S&C 37 - Archana Gopalakrishnan

Active surveillance for cancer: who and how?

S&C 38 - Jабед Ahmed

Improving patients comfort in colonoscopy at no extra cost!

S&C 39 - Parisa Naeli

Genetic speed bumps: when the code slows down, tiny proteins step in

S&C 40 - Emiko Sultana

Inequality of Pelvic Floor Surgery Access in the UK

Join us for the Keynote Speech

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Communicating about Science and the Scientific Enterprise for Nature

with Jack Leeming, Senior Careers Editor, Nature

02.07.2025 | 14:30-15:30

South Kensington Campus



For more information,
scan the QR code or go to:
tinyurl.com/ecr2025



The keynote speech, will be followed by the prize ceremony for the winners of the ECR Showcase competition.

All attendees are then welcome to join us for a networking drinks reception in the Sir Alexander Fleming Building Foyer.

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Contact Us

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