

# **Student Research Networks**

## **A model for the enhancement and enrichment of research education**

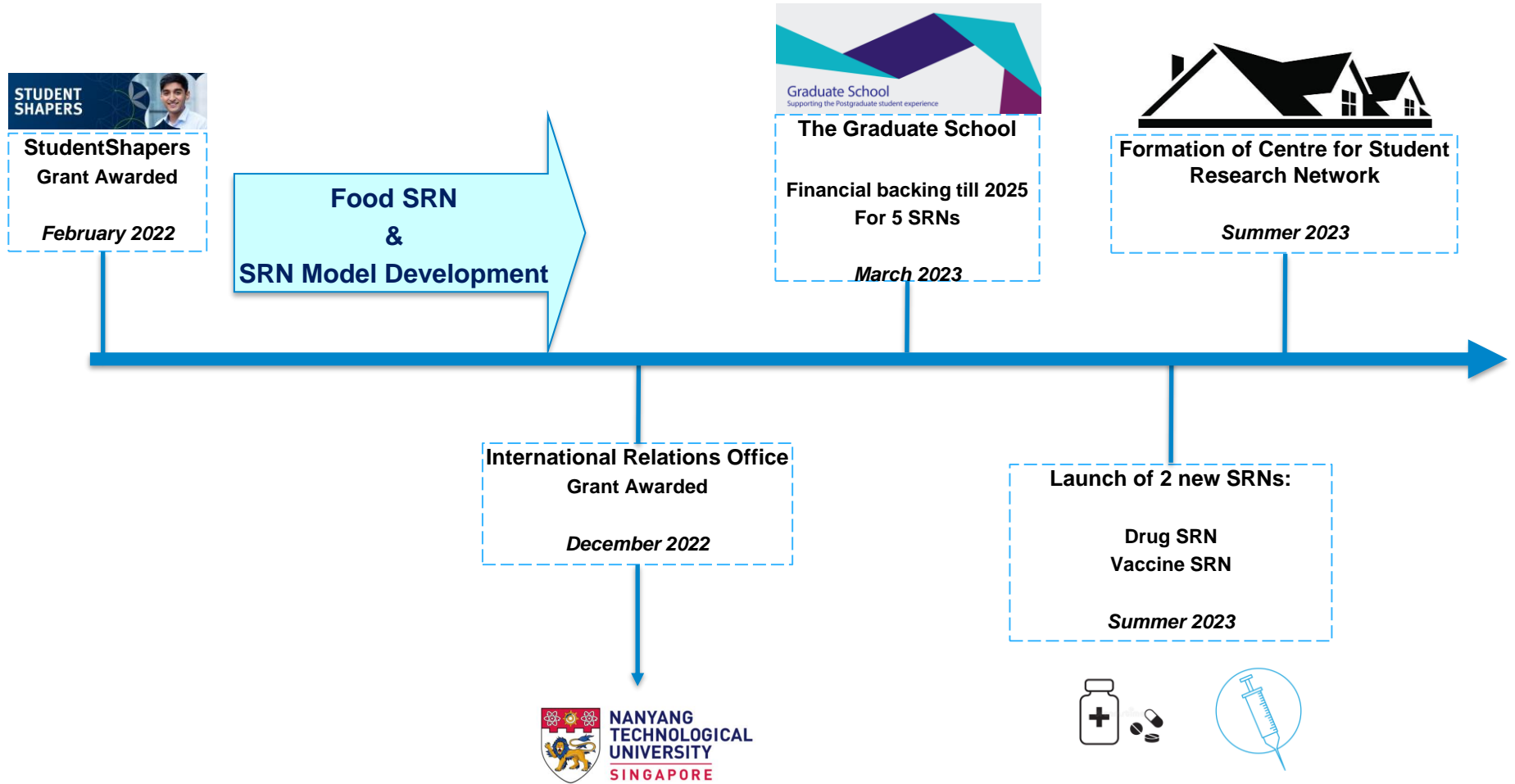
Learnings, Successes, Challenges and the future of Student Research Networks

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### Imperial College London

- We want **ALL** student education and experience to be:

Research-based	Student-centred	Evidence-based
Inclusivity and Diversity	Outward-looking	Technology enhanced

- We want:
  - All students to benefit from T&L strategic vision
  - Students in the most advanced position possible upon graduation
  - Sector recognised excellence in our research student output
  - Attractive to students, funders and employers
- Constraint to above:
  - **Research education (PhD/MRes/MSc) remains siloed**

### Imperial College London

- ICL Research strategy (since 2017) promotes multi-faculty Centres of Excellence.
  - **Aim:** Galvanise a critical mass of researchers (college-wide) to support a multidisciplinary theme.
  - 35 multi-faculty networks and 29 multi-faculty centres exist of excellence.

Provides model for adaption for educational enhancement and enrichment for research-engaged students within pre-existing structures and programmes of research education.



## Imperial College London

### Aim

- Food Student Research Network (established 2022)
  - College-wide network led by a Student-as-Partners approach for students researching within the discipline
  - Provides opportunity for: Networking, collaboration, community, cross-disciplinary learning, enrichment of perspectives and personal and professional development.

### Vision

- A **college-wide** Student Research Network within the food discipline, developed and subsequently managed through a **students as partners** approach. This will be a **virtual network**, which **unites both PhD and Masters students across the college** active in food research, and provides a **vehicle for cross-disciplinary learning and skill development** through on-going **programme of activities, events and opportunities** through the academic year.

- **Phase 1: Recruitment and network establishment**

Establish the virtual presence of the network and engage relevant students and staff within it to unite all students college-wide who are active in research with a food and nutrition relevance.

- **Phase 2: Event and activity development**

Establish the events and activities which will provide the opportunities for the identified skill development needs.

- **Phase 3: Deployment and integration into practice**

Optimisation of processes, and maintaining and ensuring longevity of the established network.

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### Current Student Research Network Managers

#### Petya Atanasova - Imperial Business School



My research focuses on the food environment and the prevention of non-communicable diseases. Specifically, I am working on the determinants of children nutritional choices and behavioural interventions for food behaviour change in low- and middle-income countries. My PhD is collaborative between the Faculty of Medicine and the Imperial College Business School.

[Email](#)

#### Costas Elezoglou - Faculty of Engineering



My PhD investigates the mechanical behaviour of chocolate. I am based in the Faculty of Engineering and more specifically in the Soft Solids Group (Mechanics of Materials Division). I deploy both experimental as well as numerical methods in my research to understand how this popular food responds to the application of various loading situations. The mechanical response of chocolate is linked to manufacturing, transportation as well as influencing texture in human perception.

[Email](#)

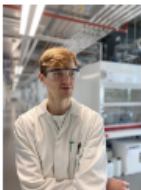
#### Cecilia Dunsterville - Faculty of Medicine



I am a first year PhD student in the Faculty of Medicine. My area of interest is the gut with a focus on food absorption, obesity, and gastrointestinal diseases. I am currently working with bioengineers to develop a contrast enhanced imaging technique to study inflammatory bowel disease.

[Email](#)

#### Tom Kitto - Faculty of Natural Sciences



I am a first year PhD student in the Faculty of Natural Sciences and a part of the EPSRC CDT in Chemical Biology. I am researching the development of synthetic biology plant cell constructs for agrochemical permeation studies as a member of the Elani group and co-sponsored by Syngenta.

[Email](#)

Imperial College  
London

- **Our role as Student Research Network Managers:**

- Faculty level**

- **Represent our faculty** in the network, understand the faculty landscape
    - **Reach out** to new students and build a database
    - **Encourage** our members to engage and present their work

- Network level**

- **Learn** about other fields and find common areas of interest
    - **Organise events** and bring people together
    - **Welcome new ideas** and let members of the network take the lead!

- **Leadership role during our PhD**

- **Foster connections throughout the college with both staff and students**

- **Organise events**

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## Imperial College London

### Academic support to the network



[Dr Aaron M. Lett](#)

Director of Food  
Student Research  
Network



[Dr Laura Barter](#)

Faculty of Natural  
Sciences



[Prof. Franco Sassi](#)

Imperial Business  
School



[Prof. Maria  
Charalambides](#)

Faculty of Engineering



[Prof. Gary Frost](#)

Faculty of Medicine



[Prof. Elio Riboli](#)

Faculty of Medicine

- Provide agency and direction to achieve network goals
  - Director oversees network
  - Activities requiring local (faculty level) attention supported by Faculty Staff Representative
- Engages senior academics in Student-as-Partners / Student Collaboration & Community
  - Low time commitment
  - Provides valuable contribution to education which integrates with senior academic commitments

The screenshot shows the Imperial College London website. At the top, there are three news items: "Shining ring around black holes recreated in the lab", "Wave energy startup wins Imperial's Venture Catalyst Challenge 2023", and "Black box AI and Women in Science award: News from the College". Below the news items is a navigation bar with "Study", "Research & Innovation", "Be Inspired", and "About". A search bar is also present. The main header for the Centre for Translational Nutrition and Food Research is displayed, with a yellow circle highlighting the "Food Student Research Network" link in the navigation menu. Below the header is a large image of various fruits and vegetables in white bowls on a kitchen scale. A blue box on the left contains the text "Responding to key emerging global challenges in food, nutrition and health" and a "Find out more" link. On the right, there is a purple circular logo for "Imperial Centres of Excellence" with the text "TRANSLATIONAL NUTRITION AND FOOD RESEARCH". At the bottom, there is a section for "Key research themes" with four buttons: "Nutrition, food and health", "Intelligent food design, engineering and monitoring", "Food security", and "Economics and policy of food".

## Imperial College London

- Through enhancing and enriching the Research education environment we make Imperial a more attractive institution for PhD Training Programme Grants
- Indirectly supporting academic revenue
- We have supported PhD Training Programme grant applications to:
  - Horizon 2020
  - BBSRC



European  
Commission

Horizon 2020  
European Union funding  
for Research & Innovation



Biotechnology and  
Biological Sciences  
Research Council

## Events

The network provides a series of activities, events and opportunities through the academic year. Information on upcoming events and past events can be found below.

### Upcoming events

[Expand all](#)

### Past Events

[Expand all](#)

Food and Nutrition Student Research Network Conference 2022, 13th September 2022	+
Outreach Event - Business Green Net Zero Festival, 28th and 29th September 2022	+
Good Pipette Practice skills workshop, 20th October 2022	+
Transforming Food Systems: An Agenda for Science, Policymaking and Investment by Dr Kalibata, 28th of November	+
Microbiomes in the Gut, Health and Environment, 8th February 2023	+

- Activities, events and opportunities provide touch-points to deliver network goals
  - Member generated, College generated or Network Generated events
- Network delivers:
  - Winter, Spring, Summer Seminar Series
  - Training / Opportunities
  - Food Student Research Network Annual Conference

# Imperial College London

- “Jewel in the Crown” of SRN’s annual events
- Conference reflects ethos of network
  - Student-centred in its design and delivery
    - Organising and hosting led by student network managers
  - Student-as-partners approach
    - Staff and Student Session Chairs
    - Staff and Student “Best Oral Presentation” and “Best Poster Presentation” judges
  - Inclusive



## Imperial College London

- September 2022: Food Student Research Network 1<sup>st</sup> annual conference
  - One day in-person event
  - Over 65 student researchers (PhD and Masters) from across the College
  - Oral presentations from 20 student researchers
  - 23 poster presentations during a networking lunch
- Feedback has been overwhelmingly positive, highlighting the value of the student research network and its activities in the enrichment of research student education and development.
  - ✓ 72% found this event **very** or **extremely valuable** (92% found the event valuable)
  - ✓ 80% **enjoyed the opportunity to present their work and attend presentations**
  - ✓ 94% enjoyed **networking** at the event

**This conference is very helpful. Every student should be asked to attend it.**

**Happy that this network was formed. Thank you for all your hard work in organising the yesterday's event.**

**Great event, and really glad to be part of the network :)**

**Great job!**

**I really enjoyed attending the first event, and the venue in South Kensington was great. I look forward to future events.**

## What opportunities are offered to students through the conference?

- Present their work
- Public speaking
- Learn about fellow researcher's work
- Form connections with students and staff
- Develop transferrable skills such as networking

## What opportunities do network manager get?

- Event organising (call for abstracts, program design, budget management)
- Liaising with College staff
- Public speaking
- Presenting our work to peers
- Form connections with students and staff
- Development of transferrable skills

## Imperial College London

- A focus on a specialise topic related to the network
- Collaborate with academics across the college to host event
- Organised by student network mangers in collaboration with academics
- Staff-Centred delivery
  - Expert insight into topic area
- Student-Staff networking event post-meeting



### *Welcome Talk*

*Dr. Jia Li* – Imperial College London  
13.00 to 13.10



### **The Gut Microbiome in Health and Nutrition**

*Professor Dirk Haller* - Technical University of Munich  
13.10 to 13.55

Prof. Haller conducts research in the field of nutrition science, focusing on bacteria in the intestine and their role in chronic inflammatory diseases and carcinogenesis. He chairs and directs diverse Institutes and international research groups, and under his leadership founded the ZIEL Institute for Food and Health at TUM. He has received distinguished awards from the European Society of Gastroenterology, the German Society for Hygiene and Microbiology and TUM.



### **Engineering synthetic microbial communities for biotechnology and biomedicine**

*Dr. Rodrigo Ledesma Amaro* – Imperial College London  
14.00 to 14.45

Dr. Ledesma Amaro is a leading researcher at the interface of synthetic biology and metabolic engineering. He received his Master's at the Universidad Autonoma de Madrid and his PhD at the University of Salamanca. After this, he performed his post-doc in France with a AgreenSkills Marie Curie Dellowship in the group of Jean-Marc Nicaud. His work focused on the engineering of the oleaginous yeast *Yarrowia lipolytica*.



### **The Neglected Fungal Dimension of Environmental Microbiomes**

*Professor Mathew Fisher* – Imperial College London  
14.50 to 15.35

Prof. Fisher works on emerging pathogenic fungi, employing genomic, epidemiological, ecological and experimental analysis tools to investigate the factors driving emerging fungal diseases.

### *Closing Talk, Coffee and Networking*

15.40 onwards



## Seminar series **Microbiomes in the Gut, Health and Environment** (February 2023)

- Three talks about the microbiome from a medical, engineering and natural science perspective
- Over 65 attendees including student, postdocs and academics
- In collaboration with Dr Jia Li (Faculty of medicine)
- International speaker from Munich Professor Dirck Haller

### For the network:

- Stay connected with members throughout the year
- Encourage College staff to use our network as a platform to host talks
- Collaboration with international speakers

### For the students:

- Learn about a specific topic
- Meet speakers in an intimate setting
- Academics are our peers in this context
- Networking opportunity

The feedback from Dr Jia Li was very positive:

*"I would like to say a BIG thank you to you all for organising the Microbiomes event. It went really well, and many people have come to me asking when it is the next one!"*

**Future Outlook and Future Strategic Vision  
for  
Student Research Networks**

**Phase 3 and Beyond**

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**Imperial College  
London**

**Expansion of Student Research Network initiative  
at  
Imperial College London**

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### Support of the Graduate School:

- SRN initiative appeals the Graduate School ethos of supporting PG student development and experience
- In March 2023, we received financial backing from Graduate School till at least 2025
- In addition to Food SRN, This will support the development of 4 new SRNs
  - 2 to launch 2023
  - 2 to launch 2024

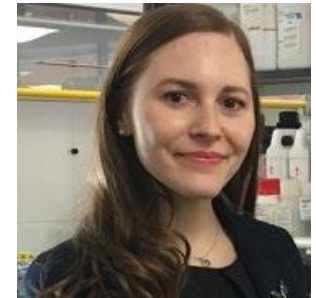
## Imperial College London

### New SRN's (to Launch Summer 2023):

- Drug Student Research Network
  - Director: Dr Fouzia Khan
- Vaccine Student Research Network
  - Director: Dr Maggie Trela
- Both Networks within Phase 1
  - Please support if relevant in your respective Department/Faculty



**Dr Fouzia Khan**  
Senior Teaching Fellow



**Dr Maggie Trela**  
Senior Teaching Fellow

### SRN's to launch in 2024:

## OPEN CALL

- New Network Themes Wanted
  - Themes which provide **impact** and **cross-faculty reach**, potential for **international collaboration** and have a infrastructure for **longevity**
  - Financial support and expertise provided to new director to implement SRN model and establish network
  - Please contact to open discussions



### Making a home

- Formation of “Centre for Student Research Networks” (*Launching Summer 2023*)
- Improve agency of initiative
- Manage and optimise network operations and growth at Imperial and with international partners
- Streamline resources
- Managed by board comprised of:
  - Each SRN Director at ICL
  - Student representative from each SRN at ICL
  - A SRN Director from each international strategic partner
  - Other stakeholders
- Assessment/Understanding of “Network model” through scholarship
  - Greater agency to acquire funding
  - Output inform strategy
  - Open to collaboration



**Imperial College  
London**

**Expansion of Student Research Network initiative  
with  
International Strategic Partners**

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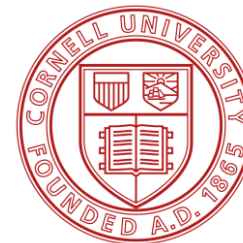
## Imperial College London

### International Expansion

- Imperial-Nanyang Food Student Research Network Partnership
  - Imperial-Nanyang Technological University Education Fund
  - Grant awarded - December 2022
    - ICL PI: Dr Aaron M. Lett
    - ICL co-I: Dr Richard Bale
    - NTU PI: A/Prof. Yusuf Ali
  - Provides a international outward-looking benefit to students.
  - Provides tangible initiative to form educational collaborations with Imperial strategic partners for mutual benefit
- To launch further partnership with strategic partners
  - Currently dependent on educational seed funding
  - Stable funding source would better support international partnership



**Prof Yusef Ali**  
Professor Metabolic Disease  
and  
Assistant Dean (External Affairs)





Imperial College  
London

# Postdoc and Fellows Education Training initiative

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### Mentorship



**Dr Richard Bale**  
(CHERS)



**Dr Aaron M. Lett**  
(FSRN)

Demand from ECR's for  
teaching opportunities



Network requirement for  
activities, events and  
opportunities

Central T&L

Topic-Level

### For ECRs

- Career development
- Teaching and learning training with purpose
- Tangible examples of teaching practice

### For Network

- Generates valuable content which delivers research-education enrichment
- Role model / Community
- Can be delivered across networks

### For College

- Builds educational capacity
- Contributes to T&L, and academic strategies

- Delivers teaching and learning training with purpose
- Supported by Postdoc and Fellows Development Centre

## Final remarks...

- Enhances and enriches Student Research Education through promotion of:
  - **Networking, collaboration, community, cross-disciplinary learning, enrichment of perspectives and personal and professional development.**
- Initiative which aligns and appeals to **College Strategy** and **Learning & Teaching Strategy**.
- Student-as-Partners as initiative which **engages senior academics** and integrates with their academic commitments.
- Tangible initiative to form educational collaborations with Imperial's **international strategic partners**

## Vision

- **For every research student at Imperial to be aligned with a SRN**

# Thank you

## **Dr Aaron M. Lett**

Senior Teaching Fellow - Faculty of Medicine  
Director - Food Student Research Network  
Director - Centre for Student Research Networks  
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## **Cecilia Dunsterville**

PhD Student – Faculty of Medicine  
Student Research Network Manager  
[c.dunsterville19@imperial.ac.uk](mailto:c.dunsterville19@imperial.ac.uk)

**We would particularly like to hear from people interested in:**

- Establishing a new SRN theme
- Research & Scholarship of SRN initiative
- Supporting SRN growth

**With special Thanks to:**

**StudentShapers  
Postgraduate Community Fund  
International Relations Office  
The Graduate School**

**Student Partners:**

**Petya Atanasova - Imperial Business School  
Costas Elezoglou - Faculty of Engineering  
Tom Kitto - Faculty of Natural Sciences**

**Staff Partners:**

**Prof Gary Frost – Faculty of Medicine  
Prof Elio Riboli – Faculty of Medicine, School of Public Health  
Prof Maria Charalambides – Faculty of Engineering  
Dr Laura Barter – Faculty of Natural Sciences  
Prof Franco Sassi – Imperial Business School**

**Other:**

**Dr Richard Bale – CHERS  
Dr Fouzia Khan – Drug SRN  
Dr Maggie Trela – Vaccine SRN  
Prof Yusef Ali - NTU**