

BAS Summer School 2025

Friday 2nd - Saturday 3rd May

Cutting-edge Basic and Translational Methods in Cardiovascular Research

Overview

This summer school is a hands-on practical program focused on both foundational and advanced techniques in cardiovascular research. Aimed at aspiring future leaders in the field, it will cover the entire spectrum of cutting-edge research methods, from atherosclerosis quantification to single-cell RNA sequencing, CyTOF applications, and proteomics.

Aim

The primary goal of this summer school is to equip participants with practical skills essential for modern cardiovascular research. Each session combines theory with hands-on practice, providing students the opportunity to apply what they learn in real-time, under expert guidance.

Summer School Objectives

- Cultivate a new generation of leaders in basic cardiovascular science.
- Enhance participants' understanding of cardiovascular disease basics while introducing them to innovative research techniques.
- Enable participants to gain comprehensive insights into cardiovascular disease within a focused and supportive academic environment.
- Facilitate valuable relationships and collaborations between researchers across UK.

Target Audience

This program is designed for:

- BAS early-career non-clinical and clinical researchers members
- Total participant capacity is limited to **20**

Application Process

- **Membership Requirement:** All applicants **must be** current members of the British Atherosclerosis Society.

- Proof of membership number is required upon registration. To become a member today (<https://www.britathsoc.org/membership/>)
- Eligible memberships include Ordinary (**within 5 years of obtaining a PhD**), Junior, or Student BAS membership.
- **Application Documents:**
 - CV must be submitted along with your application.
 - A short letter outlining your interest in attending the BAS summer school.
- *We will prioritise applicants who are less experienced in the field, with a focus on early-stage researchers.*
- *Preference will be given to applicants who have submitted an abstract for the 2025 European Atherosclerosis Society Congress in Glasgow (proof of submission required).*

Financial Aid:

- **Glasgow or Edinburgh Attendees:** Up to £100 in financial support towards attendance, upon submission of cost justifications (quotes or receipts).
- **Outside Glasgow or Edinburgh Attendees:** Up to £400 in financial support, upon submission of cost justifications (quotes or receipts).

Successful applicants will also receive a significant discount on the 2025 EAS Congress registration fee.

Organising Body

This summer school is proudly organised by the **British Atherosclerosis Society** with support from the **Lennard Family Donation** in conjunction with the **Dr French Foundation**, providing a unique opportunity to bridge theory and practice in cardiovascular research.

Summer School Coordinators

Dr. Danila Gurgone and Prof. Pasquale Maffia

Enquires and application at: youngcommunity@britathsoc.org

APPLICATIONS DEADLINE: 17th of February, 2025 @ 11.59 p.m GMT

SPEAKERS BIO



Dr. Danila Gurgone is currently a Lecturer in Pharmacology at the School of Cardiovascular & Metabolic Health and an Affiliated Researcher at the School of Infection and Immunity, University of Glasgow. My research focuses on the immune response in cardiovascular diseases (CVD), spanning basic and clinical studies. I focus on targeting immune and inflammatory mechanisms underlying CVD, such as atherosclerosis, hypertension, and heart failure. I have previously worked on projects supported by the European Society of Cardiology (ESC), the British Heart Foundation (BHF), and the Italian Ministry for Universities and Research (MUR). I am a current member of BAS, EAS and BPS societies.



Dr. Jordi Lambert is a career development fellow at the University of Cambridge, where her research uses cutting edge technologies including single-cell RNA-sequencing to understand vascular smooth muscle cell behaviour in atherosclerosis. Prior to this, Jordi completed her PhD at the university of East Anglia, where she researched cell-extracellular matrix interactions in angiogenesis, and she continues to maintain an interest in the regulation of matrix metalloproteases in the vasculature.



Dr. Jennifer Cole graduated with a BS in Biomedical Science from The University of Sheffield. She earned her PhD, focused on the role of chemokine receptors in atherosclerosis in the lab of Prof Dorian Haskard at Imperial College London in 2009 before moving to Prof Monaco's lab at The University of Oxford. Her research interests lie in identifying and determining the roles of immune cell subsets, particularly myeloid cells in atherosclerosis. In 2011 Dr Cole won the British Atherosclerosis Society Young Investigator Award.



Mr. Lukas Schmidt

My fascination with untangling complex biological systems through separation techniques combined with mass spectrometry began during my Biology undergraduate studies. After earning an MSc in Biochemistry at the University of Vienna, I spent five years in London mastering proteomic techniques as a technician in Prof. Manuel Mayr's lab, earning recognition as a Registered Scientist with the Science Council (<https://sciencecouncil.org/>). Now a PhD student at the Medical University of Vienna and an AAS, BAS, and EAS member, I aim to advance insights into residual risk factors in ASCVD through innovative proteomics approaches.



BAS Summer School

Advanced Research Centre
University of Glasgow,
11 Chapel Lane, Glasgow G11 6EW
Friday 2nd – Saturday 3rd May

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Programme

Friday 2nd of May – Day 1

9.00 - 9.30	Registration
SESSION 1: Atherosclerosis Quantification	
9.20-9:30	Welcome and Sessions Overview Speaker: Prof. Tomasz Guzik (<i>University of Edinburgh</i>)
9:30-11.00	Methods of Atherosclerosis Research Speaker: Dr. Danila Gurgone (<i>University of Glasgow</i>)
11:00-11:15	Refreshment Break
11:15-12:45	Data Analysis Workshop: Atherosclerosis Quantification Speaker: Dr. Danila Gurgone (<i>University of Glasgow</i>)
12:45-13:30	Lunch Break
SESSION 2: CyTOF principles and its applications in immune profiling in cardiovascular research.	
13:30-14:45	Introduction to CyTOF Speaker: Dr. Jennifer Cole (<i>University of Oxford</i>)
14:45-15:00	Break
15.00-16.30	CyTOF Data Analysis Workshop Speaker: Dr. Jennifer Cole (<i>University of Oxford</i>)
16.30-17.00	Group Discussion & Wrap-Up Speakers: Dr. Danila Gurgone & Dr. Jennifer Cole
17.00-19.00	Social at Curlers' Rest (TBC)

Saturday 3rd of May – Day 2

9.00 - 9.30	Registration
SESSION 1: sc-RNA Sequencing Principles and Applications in Cardiovascular Research	
9:30-11.00	Introduction to Single-Cell RNA Sequencing Speaker: Dr. Jordi Lambert (<i>University of Cambridge</i>)
11:00-11:15	Refreshment Break
11:15-12:45	Data Analysis Workshop: sc-RNA seq Speaker: Dr. Jordi Lambert (<i>University of Cambridge</i>)
12:45-13:30	Lunch Break
SESSION 2: Proteomics Principles and Applications in Cardiovascular Research	
13:30-14:45	Proteomics in CVD Speaker: Mr.Lukas Schmidt (<i>University of Vienna</i>)
14:45-15:00	Break
15.00-16.30	Proteomics Data Analysis Workshop Speaker: Mr.Lukas Schmidt (<i>University of Vienna</i>)
16.30-17.00	Summary and Closing Summer School Remarks Speaker: Prof. Pasquale Maffia (<i>University of Glasgow</i>)