Organic methodology: new approaches to fluorination

Applications are invited for a 4 year PhD studentship starting in September 2025 to work in the group of Dr Alastair Lennox (www.lennoxlab.com) at the University of Bristol.

Fluorination is essential to the tuning and manipulation of function in complex organic molecules in a variety of important applications, including agrochemistry, pharmaceuticals, battery research and liquid crystals. Hence, the development of selective and sustainable methods to incorporate fluorine into organic molecules is critical to the progress of many fields of research.

In the Lennox group, we are interested in the development of new synthetic organic methods for fluorination using modern, enabling technologies, such as electrochemistry or catalysis (see for example, 10.1038/s41557-024-01561-6 and 10.1021/jacs.4c03826). In this project, we will build on our experience and expertise in fluorination, to develop new strategies and approaches to produce synthetic methods that are aimed at medicinal chemists for use in the design and development of new drugs.

The successful candidate will receive training in synthetic organic chemistry, including in C–H functionalisation, fluorination, hyper–valent iodine chemistry and electrochemistry. Furthermore, the student will receive mentoring in the development of scientific communication, problem solving, project management and supervision. The successful candidate will have a strong interest and in organic chemistry and an appetite to become expert in new techniques and technologies.

Candidate Requirements

Applicants must have obtained, or be about to obtain, a First or Upper Second Class UK first Masters degree, or the equivalent qualifications gained outside the UK, in Chemistry.

Funding

A full studentship will cover UK tuition fees, a training support fee and a stipend (£19,237p.a. in 2024/25, updated each year) for 4 years.

How to apply:

To make a formal application, follow the 'Start a new application' link on this page: <u>http://www.bristol.ac.uk/study/postgraduate/apply/</u> and include "Alastair Lennox" in the "preferred supervisor" box.

We also encourage you to make an informal enquiry to Dr Lennox (a.lennox@bristol.ac.uk) with a CV and cover letter, or if you have any queries. The deadline for applications is 28th February 2025, but **note:** *early application is strongly recommended because applications may close earlier than the advertised deadline if a suitable candidate is identified.*