DPhil studentships in chemistry & chemical biology, closely interfacing bioengineering, biomedical, and life sciences, University of Oxford

Supervisor: Professor Yimon Aye

Open: *presently*
Close: *rolling applications until all the positions are filled*

Location: Chemistry Research Laboratory and Rodney Porter Building, Oxford OX1 3TA

The Aye laboratory based at Oxford Department of Chemistry is a multidisciplinary laboratory focusing on reactive small-molecule metabolite signalling, as it pertains to intra- and intercellular communication and drug discovery. We have pioneered numerous novel and multi-award-winning chemical biology concepts and techniques that have been applied to important biological questions.
Three externally funded projects, supported by the Royal Society and the Academy of Medical Sciences UK, respectively, will build on previously-published foundational studies, and encompass wide-ranging areas in the broader context of organic chemistry and chemical biology, including understanding and reprogramming subcellular metabolite trafficking and signalling mechanisms through the design and application of novel small-molecule probes; and innovations and applications of chemistry-driven advanced spatial & functional omics tools in multiple living models for fundamental and disease-specific investigations. Breakthrough deliverables for both projects also include harnessing these newly discovered mechanisms of conserved importance across evolution toward the development of precision small-molecule modulators against cardiovascular, infectious diseases, and cancer. There are boundless opportunities to learn leading-edge chemical biology, biochemical, genetics, cell and molecular biology, and model organism research techniques alongside strongly-interdisciplinary concepts, in line with candidates' interests to diversify their training portfolio and make unique personal and scientific achievements.

Your profile: prospective candidates should have, by the time they begin work, an undergraduate degree with substantial research experience in organic chemistry, chemical biology, biological chemistry or medicinal chemistry, or the broader life sciences. We welcome all interested aspiring interdisciplinary researchers with diverse backgrounds. Experience in organic chemistry, bioengineering, chemical biology, or biotechnology is a plus, *but* not strictly required.

We offer: a laboratory that has won numerous awards lying at a nexus between numerous fields interfacing with chemistry, with numerous former PhD-student alumni in early-independent positions in academia & industries around the world. The successful candidate will enjoy unique state-of-the-art instrumentation, a team-playing environment with dedicated mentor-mentee pairing where early-stage students can learn and develop, and projects that are aiming to make real-world impact. The facilities and infrastructure at Oxford are also fantastic. More information about our research group, including other active research themes, can be found at https://www.chem.ox.ac.uk/people/yimon-aye

Start date: The positions are available immediately and the start date is flexible subject to College and University approval*. Funding is available at a Home fees rate. Overseas students are encouraged to contact the PI for potential arrangements of supplementary support.

Candidates should submit a formal application for DPhil in Chemistry via the Oxford online application system:

https://www.ox.ac.uk/admissions/graduate/applying-to-oxford

https://www.ox.ac.uk/admissions/graduate/courses/dphil-chemistry

Please quote **YA/Chem/2025** under 'Departmental Studentship Applications'.

Next University application deadline: **12.00 noon UK time on 29th January 2025**

Contact: For questions and discussions relating to the project(s) and funding, please contact yimon.aye@chem.ox.ac.uk

Queries relating to the application and admission process should be directed to graduate.admissions@chem.ox.ac.uk ; tel.: +44 (0) 1865 272569.

*Please note that the University application system offers only October 2025 start date. Alternative arrangements would be discussed individually with successful candidate(s).