

Computer-aided development of next generation medicines beyond Lipinski space

Applications are invited for fully-funded 3.5 year PhD studentship to work in the group of Professor David Palmer at the University of Strathclyde (in Glasgow). The PhD student will work alongside a multi-disciplinary team of synthetic chemists, chemical biologists, and data scientists supported by a £3.9M EPSRC Prosperity Partnership Award centred around the development of next generation medicines beyond Lipinski space. This is a multi-year, collaborative endeavour with our industrial partner GSK, and has the overall objective of retooling the underpinning synthesis of oligonucleotides (ONs) and their derivatives, the development of platforms for cell targeting, and new approaches to heterobifunctional molecules.

Working in close collaboration with other scientists at the University of Strathclyde and GSK, you will develop computational methods to accelerate the design of next generation pharmaceuticals beyond Lipinski space. Within this remit, the PhD research will focus on one or more of the following topics: (i) modelling chemical reactivity to aid the design of novel synthetic routes to ONs; (ii) elucidating structure-property relationships governing cellular uptake, physico-chemical properties, and efficacy for a novel class of therapeutic ONs; (iii) using molecular simulation and informatics to design RNA-PROTACS. The studentship will provide training in both physics-based modelling (DFT, and classical forcefield based molecular dynamics) and data-driven approaches (AI/ML, informatics).

The role will be based in the Palmer Lab (www.palmer-lab.com) in the Strathclyde Computational and Theoretical Chemistry Hub (SCoTCH, www.scotch-research.com), a centre for excellence in computational molecular science. The centre occupies modern computational laboratories with access to high-performance computing facilities including graphic processing units (GPUs). The centre hosts over 20 PhD students and postdocs offering a vibrant place to work.

This PhD studentship is fully-funded for home (UK) students and includes a tax-free stipend at standard UKRI rates, along with coverage of fees. Please note that the studentship does not cover international tuition fees, and applicants liable for these fees would need to secure additional funding. The proposed start date is 1st October 2026. For any informal enquiries, please contact Professor David Palmer (david.palmer@strath.ac.uk). General information about the PhD programme at the University of Strathclyde is available [here](#). Applications should be submitted at this [link](#).