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International Student Research Bursary 2026

Below is a list of potential host supervisors from UK & Ireland who have expressed an interest in supporting a student as part of International Student Research Bursary (ISRB) in 2026.

It is the responsibility of the student to find a host supervisor. Please feel free to contact supervisors directly if any of their projects are of interest to you. If you have different interests, you can pursue those and contact other potential supervisors not on this list. You can arrange your own host supervisor outside of this list, this list is to provide ideas and a starting point.

If you have any questions about the ISRB 2026 please contact the Accreditation Team on accreditation@rsc.org

Supervisor Name:	University:	Email:	Research Area:	Research Group website (if available):	Projects available in 2026:	Any other details on your research or the research projects:
Lee Higham	Newcastle University	lee.higham@ncl.ac.uk	Fluorescent probes for medical imaging; asymmetric catalysis; phosphorus chemistry	www.leejohnhighamresearch.com	Click Chemistry to give Bio-tagged Novel Fluorescent Probes for Mitochondrial Imaging	The student will learn how to prepare fluorescent molecules based on phosphorus, which they will then couple to various small biomolecules using click chemistry to give novel molecules with a medicinal application. Techniques and skills that you will acquire include using a Schlenk line, NMR spectroscopy, Click-Chemistry and UV-Vis spectroscopy.
Christopher Burke	University College Cork, Ireland.	christopherburke@ucc.ie	Medicinal Inorganic Chemistry		Project areas are flexible but some ideas are: 1. Iridium(III)-solvate complexes as theranostic probes for antimicrobial therapies. 2. Development of green syntheses of Ru(II) polypyridyl complexes. 3. Mitochondria-targeted chromium(III) complexes for photodynamic therapy applications. 4. Dye-loaded G-quadruplex aptamers for sensing and therapy of thrombosis.	My team is interested in the development of photoactive metal-based compounds that can be used individually or in combination with bio-targeting ligands towards next generation selective diagnostics and therapies.
Marcel Jaspars	University of Aberdeen	m.jaspars@abdn.ac.uk	Natural Products	https://www.abdn.ac.uk/ncs/departments/chemistry/research/marine-biodiscovery/	The discovery and structural characterisation of biologically active microbial natural products	The main aim of this project is the isolation and structural characterisation of natural products from cultured bacteria from a range of environments (desert, marine). You will gain skills in microbial cultivation, extraction, isolation and purification techniques such as solid phase extraction, size exclusion chromatography and HPLC, as well as modern structure determination techniques including MS and 2D NMR. The specific objectives of this project are:• To grow the bacteria in bulk culture and to extract the medium using solid phase extraction. • To use LC-MS and NMR based approaches to select extracts for further fractionation.• To isolate natural products from extracts.• To complete the total structural elucidation of the active compounds using NMR and MS.• To submit compounds for biological testing against human diseases.Assumed Knowledge: Spectroscopic methods (NMR/MS); Chromatographic methods.Research Outcomes: LC-MS data on bacterial extracts and analysis using statistical tools; Pure compounds isolated;

						Structures of pure compounds identified using spectroscopic methods.
Sweta Ladwa	University of |Greenwich	s.ladwa@gre.ac.uk	Pancreatic cancer remains one of the most lethal malignancies, with limited therapeutic options and a highly resistant tumour phenotype.		Synthesis of potential target molecules based on Grandifloracin alongside biological testing of current library of molecules.	Pancreatic cancer remains one of the most lethal malignancies, with limited therapeutic options and a highly resistant tumour phenotype. A hallmark of this disease is its austere microenvironment characterised by low oxygen, glucose, and serum availability which contributes to therapeutic failure. Conventional in vitro models rarely reflect these conditions, hindering progress in drug development. This project has three key objectives: 1. To develop and validate in vitro models that mimic the nutrient and oxygen deprived pancreatic tumour microenvironment. Cancer cell lines will be cultured under systematically varied serum, glucose, and oxygen levels to model metabolic stress and characterise baseline growth and survival responses. 2. To synthesise and screen Grandifloracin and its chiral analogues for selective cytotoxic activity under nutrient-deprived conditions. Grandifloracin has shown potential to induce non-canonical cell death under stress. I will assess cytotoxicity and metabolic responses across our model conditions using viability and proliferation assays. 3. To elucidate the mechanisms of action of Grandifloracin analogues. I will investigate apoptosis, autophagy, and key signalling pathways (Akt, AMPK, mTOR) through Western blotting and phospho-protein profiling. Using cutting-edge catalysts, I will conduct systematic biological activity studies on the Grandifloracin core structure and its variants. Having already synthesised several analogues, I will expand our molecule library to enable comprehensive screening and pharmacophore analysis. This work will deliver robust models of pancreatic cancer stress and identify promising compounds for future therapeutic development.
Daniel Sykes	London Metropolitan University	d.sykes@londonmet.ac.uk	Emissive iridium complexes for antimicrobial activity		Designing and synthesising emissive iridium complexes and performing antimicrobial studies on them.	
Richard Matthews	University of East London	rmatthews3@uel.ac.uk	Physical and Computational Chemistry		Exploring hydrogen networks in deep eutectic solvents using molecular dynamics and DFT.	

BO XIAO	Queen's University of Belfast	b.xiao@qub.ac.uk	functional materials, porous polymeric materials, zeolites, carbon materials, metal organic frameworks, adsorbent, catalyst, photocatalysis, medicine delivery, antimicrobial, pollutant removal	https://pure.qub.ac.uk/en/persons/bo-xiao	Influence of Metal Ion Type on the Formation, Structure, and Adsorptive Properties of Alginate Hydrogel Beads for Active Pharmaceutical Ingredients	This study aims to investigate the effect of different metal ions on the formation and properties of alginate gel beads and to evaluate their efficiency in removing active pharmaceutical ingredients (APIs) from aqueous solutions. Alginate beads will be synthesized using varying alginate-to-metal ion ratios, focusing on representative divalent and trivalent ions (e.g., Ca^{2+}, Al^{3+}, Fe^{3+}), while maintaining uniform bead size through controlled droplet formation. The structural and physicochemical properties of the beads, including surface morphology, functional groups, and swelling behavior, will be characterized using SEM, FTIR, and swelling tests. Adsorption experiments will be conducted with selected APIs, such as ibuprofen, under controlled pH and temperature conditions. Kinetic studies will be performed to understand the adsorption mechanism, and equilibrium adsorption capacities will be analyzed using isotherm models (Langmuir and Freundlich). This approach will provide insights into optimizing bead composition for enhanced API removal efficiency and contribute to the development of eco-friendly water purification methods.
Christian Nielsen	Queen Mary University of London	c.b.nielsen@qmul.ac.uk	organic electronics; organic bioelectronics; pi-conjugated materials	https://nielsen-lab.com/	ion-selective organic semiconductors; new organic mixed ionic-electronic conductors	
Edward Randviir	Manchester Metropolitan University	E.Randviir@mmu.ac.uk	Circular economy, polymer recycling, electrochemistry, wastewater treatment	https://www.mmu.ac.uk/staff/profile/dr-edward-randviir	Electrochemical depolymerisation of polyolefins using biphasic Pickering-type catalytic emulsionsSecuring circular wastewater by deconvoluting electrochemical mechanisms of the electro-reduction of reactive dyesElectrochemical detection of PFAS using portable sensors	You will work within the electrochemistry group within the Department of Natural Sciences at Manchester Metropolitan University, under the direct guidance of our PhD students, research technicians, and post-doctoral researchers, and managed by Dr Randviir.
Jacqueline Hamilton	University of York	jacqui.hamilton@york.ac.uk	Atmospheric chemistry, Analytical Chemistry, pollution	https://www.york.ac.uk/chemistry/people/jhamilton/	Understanding the sources of indoor air pollution: toxic chemicals in household particles.	
Alison Parkin	University of York	alison.parkin@york.ac.uk	Diagnostic bioelectrochemistry		We will be delighted to host a student interested in developing new chemical tools to detect disease. We will teach the student how to use our bespoke molecular toolkit to immobilise biorecognition elements so that we can selectively detect disease biomarkers. The student will also be trained in Fourier transform voltammetry, a highly sensitive and rapid measurement technique. Because of our commercially sensitive industrial partnerships, it is not possible to share specific details on target molecules at this time.	The work will be financially supported for laboratory costs via UKRI Guarantee grant funding.
Shozeb Haider	University College London	shozeb.haider@ucl.ac.uk	Computational Biophysics	https://profiles.ucl.ac.uk/37912	1. Structural studies of G-quadruplexes 2. Machine learning of Metallo beta lactamases	My research focuses on understanding the structural and functional dynamics of biological macromolecules, with an emphasis on drug discovery and development. By integrating computational and experimental approaches, we aim to elucidate the mechanisms of disease at a molecular level and identify potential therapeutic targets.
Paul Dingwall	Queen's University Belfast	p.dingwall@qub.ac.uk	Physical Organic Chemistry	https://www.dingwall-lab.co.uk/	Continuing the Mechanistic Investigation of Hypervalent Iodine Mediated Alcohol Oxidation	This project will continue recently published group research on the mechanism of the TEMPO/PIDA mediated oxidation of alcohols. The work will involve a mechanistic study through kinetic profiling and interrogation using modern graphical rate equation methods.

Dr Thomas Britten	Manchester Metropolitan University	t.britten@mmu.ac.uk	Organic and Medicinal Chemistry	https://www.mmu.ac.uk/staff/profile/dr-thomas-britten	(i) Use of Photochemistry to Access High-Value Chemical Building Blocks (ii) Novel Synthetic Routes to Access Candidates for Targeted Protein Degradation (iii) Antimicrobial Drug Discovery	My research group is focused on the development of novel synthetic methodology to access medicinally relevant scaffolds for ongoing drug discovery projects. We are a team of synthetic organic chemists who use greener technologies, such as photochemistry, to develop new synthetic pathways. We also have expertise in catalysis (using Brønsted or Lewis acids) and organosilicon chemistry.
Sacha Fop	University of Aberdeen	sacha.fop1@abdn.ac.uk	Ionic conductors, Materials science, Neutron diffraction		Research in our group focuses on the development and characterisation of novel ionic conductors for energy-related applications. Current research involves the synthesis and characterisation of innovative phosphate materials with superprotonic conductivity at ambient conditions and of oxyhalide systems with intriguing electrical and optical properties.	
Dr Tom Dugmore	University of York	tom.dugmore@york.ac.uk	Green Chemistry, Waste Valorisation		Exploitation of ginger-based antioxidants for oil formulations Environmental remediation of textile wastes using coffee-based adsorbants	
Juliana Morbec	Keele University	j.morbec@keele.ac.uk	Computational Materials Science	https://sites.google.com/view/morbec-research-group	First-principles studies of materials for sustainable technologies	
Falko Drijfhout	Keele University	f.drijfhout@keele.ac.uk	My research applies analytical chemistry (chromatography and mass spectrometry) to forensic science and entomology. My research focuses on exploring their chemicals and we try to unravel their chemical profile and how this is changing under various factors. These factors could be age, human influence of diseases.		1) Determining species and/or age-related biomarkers in blowflies to be able to determine their species and age using GC-MS and LC-MS. This is relevant in estimating time of death in a homicide. So far, we have identified cuticular hydrocarbons are possible biomarkers but currently looking at the metabolic profile as well.2) Optimizing the detection of controlled drugs in necrophagous flies (blowflies) through either GC-MS or LC-MS. This research area is known as forensic entomotoxicology and combines classical toxicology to forensic entomology3) Determining disease biomarkers in the honeybee colony VOC profile using GCxGC-ToF-MS. Specific diseases currently looked at are European and American foul brood.	In my research the student will be able to explore the use of GC-MS and LC-MS (including HiRes MS), and various sample preparation methods the projects mentioned above.
Dr Nilanthy Balakrishnan	Keele University	n.balakrishnan@keele.ac.uk	2D Materials, Energy Storage	https://nbalakrishnan0.wixsite.com/n-balakrishnan	1. Low-cost, low-temperature synthesis of 2D materialsTwo-dimensional (2D) materials, such as graphene, transition metal dichalcogenides (TMDs), and MXenes have emerged as transformative materials for applications in energy storage, sensing, and nanoelectronics due to their unique electrical, mechanical, and thermal properties. However, conventional synthesis methods, such as mechanical exfoliation limiting scalability and chemical vapor deposition (CVD) require high temperatures, expensive equipment, and complex processing steps limiting accessibility. This project aims to develop and optimise low-cost, low-temperature synthesis routes for 2D materials using aerosol- or solution-based orhydrothermal methods. The focus will be on:-Reducing synthesis temperatures to below 400 degree centigrade to enable compatibility with flexible substrates and low-energy processing.-Utilizing earth-abundant precursors and scalable techniques to minimize cost and environmental impact.-Characterizing the structural and optical properties of the synthesized materials using XRD, SEM, Raman and UV-VIS spectroscopies.By addressing the challenges of cost and temperature, this research will contribute to democratization of advanced materials science and support sustainable innovation in energy and electronics.2. All-Solid-State Energy Storage Devices	Recently, I completed the supervision of an 8-Week Summer Internship project funded by Henry Royce Institute.

					(Supercapacitors)Supercapacitors have been identified as viable energy storage devices especially, to provide quick energy requirements in many applications such as automobiles and power backups. They have higher power than batteries and higher energy than conventional capacitors. However, there are two leading challenges that exist with many novel devices namely safety and high cost. With the world's trend towards green technology and the cruel economic crisis in many countries, it is highly needed to address these factors when introducing new devices. This study aimed to design a laboratory-scale supercapacitor with features of environmental friendliness and low cost. The electrolytes of the proposed supercapacitors will be solid polymer electrolytes based on safe and low-cost polymers. Material selection for the electrodes will also be done by addressing the two limiting factors of safety and cost. Performance evaluation of the supercapacitors will be accomplished using different characterization techniques.In this project, you will learn(i) to synthesize solid polymer electrolytes.(ii) To fabricate supercapacitors(iii) Technical skills in different characterization techniques. 3. Strain Engineering of 2D MaterialsThe isolation of graphene from graphite crystals has led to great interest in other graphene-like two-dimensional (2D) materials. These 2D materials can sustain high strain in a reversible fashion due to their large mechanical flexibility. Amongst them, III-VI materials, such as InSe, GaSe, In2Se3, InTe, etc. are the most flexible systems with small young's modulus and bandgap energies that are very sensitive to strain. Thus, III-VI materials represent promising systems to explore and exploit the effects of strain on the electronic and optical properties. The pressing demand for miniaturized, flexible, and wearable devices can be fulfilled by 2D semiconducting materials. Specifically, gathering health-related information by sensing and wearable technologies is considered a keystone in health informatics. Therefore, the fundamental studies of strain on electronic properties of 2D materials are essential and a systematic study for strained few-layer III-VI semiconducting materials is still lacking. It is important to fill this gap for the development of flexible and wearable nanodevices.In this project, you will develop methodologies to control strain in III-VI materials and study their electronic properties. Also, you will learn(i) technical skills to exfoliate different 2D materials.(ii) technical skills to operate an optical microscope and a Raman microscope.	
Bhaven Patel	London Metropolitan University	b.patel1@londonmet.ac.uk	Organic chemistry		Synthesis of ETPs via a Ramberg-Bäcklund approach Synthesis of 4-substituted pyrroloquinoxalines for their use as metal sensors	
Michael Jie	Queen Mary University of London	x.jie@qmul.ac.um	Microwave catalysis, waste plastics upcycling, CO2 utilisation		Microwave-driven methane dry reforming for syngas production; microwave -driven waste plastics upcycling.	