Wellcome Trust Biomedical Vacation Scholarship Scheme at King's College London

Project Catalogue

Summer 2025

PROJECTS LISTED UNDER WELLCOME TRUST DISCOVERY RESEARCH FUNDING REMIT CATEGORIES

Burden of disease and its determinants, where this brings new and transformational knowledge

Complexities of human health and disease, including clinical and population-based approaches

Development of methodologies, conceptual frameworks, technologies, tools or techniques that could benefit health-related research

Fundamental processes that underpin biology, to understand more about how life works

burden of disease and its determinants, where this brings new and transformational knowledge		
2025_01 Dissecting virulence mechanisms of AMR Klebsiella pneumoniae using the zebrafish infection model		
Supervisor:	**Dr Joseph J Wanford and Dr Vincenzo Torraca**	joseph.wanford@kcl.ac.uk; vincenzo.torraca@kcl.ac.uk
Website:	https://www.kcl.ac.uk/research/wanford-group https://www.kcl.ac.uk/research/torraca-group	
Affiliated Lab:	Principle Investigator - Interaction of Antibiotic-Resistant Pathogens With the Host	
Campus:	Guy's;	

Aims and Research Questions of the Project:

Klebsiella pneumoniae is a WHO priority pathogen for which we urgently need new treatments due to widespread antibiotic resistance. Hypervirulent strains of K. pneumoniae (HVKp) pose a unique threat as they can cause life-threatening systemic infection in healthy people. HVKp are characterised by a thick polysaccharide capsule, and carriage of a large virulence plasmid which contains ~300 genes driving the hypervirulent phenotype. In this project, you will employ molecular microbiology techniques to culture and genetically manipulate HVKp strains to delete key virulence factors from the plasmid. You will use these strains to infect zebrafish larvae to study the dynamics of infection and host response using quantitative bacterial culture, fluorescence microscopy, and qPCR targeting inflammatory cytokines. We expect this project will identify novel virulence determinants of HVKp which may be targets for new therapeutic strategies.

Prerequisite Skills or Academic Background Required:

This project is relevant for undergraduate students studying biochemistry, genetics, microbiology, or immunology.

burden of disease and its determinants, where this brings new and transformational knowledge		
2025_02 Exploring Neuropathological Changes in a Preclinical Model of Parkinson's Disease		
Supervisor:	**Gemma Deegan; Dr Diana Cash**	gemma.deegan@kcl.ac.uk; diana.cash@kcl.ac.uk
Website:	https://brain-imaging.org	
Affiliated Lab:	PhD student within the Cash Lab/Brain Centre Lab.	
Campus:	Denmark Hill;	
Aims and Research Questions of the Project:		
GBA1 mutations are one of the most common genetic risk factors for the development of Parkinson's disease. Although primarily a movement disorder, non-motor symptoms (including sleep disturbances), are increasingly becoming recognised as significant contributors to the disease burden, often appearing years before motor symptoms and impacting patients' quality of life. This project aims to investigate age- and genotype-dependent neuropathological changes in a GBA1 mutant mouse model of Parkinson's. The student will prepare and analyse brain tissue using histological techniques to assess potential markers of neurodegeneration. The student will also have the opportunity to be exposed to other translational techniques including EEG and MRI.		
Prerequisite Skills or Academic Background Required:		
This project will only be suitable for biomedical or biological-related undergraduate students. Preferably those with a background or interest in neuroscience.		

complexities of human health and disease, including clinical and population-based approaches		
2025_03 Adverse childhood experiences and biological ageing: the moderating role of lifestyle		
Supervisor:	**Dr Julian Mutz; Dr Monica Aas**	julian.mutz@kcl.ac.uk; monica.aas@kcl.ac.uk
Website:	https://www.kcl.ac.uk/people/julian-mutz https://www.kcl.ac.uk/research/sgu; https://www.kcl.ac.uk/people/monica-aas	
Affiliated Lab:	King's Prize Research Fellow - affiliated with Statistical Genetics Unit	
Campus:	Denmark Hill;	

Aims and Research Questions of the Project:

Adverse or traumatic life events early in life are linked to worse physical and mental health outcomes. This project aims to investigate associations between childhood adversity and biological ageing and to determine whether healthy lifestyle behaviours—such as physical activity—can mitigate the negative impact of adverse childhood experiences. Data from the UK Biobank, a study of over 500,000 middle-aged and older adults, will be used. The dataset includes self-reported adverse or traumatic events from childhood, lifestyle information, genetic data, and multiple measures of biological ageing. The student will have the opportunity to (1) review existing literature on early-life stress and biological ageing and (2) empirically test how lifestyle factors modify the link between adverse childhood experiences and biological ageing. This research will clarify potential mechanisms underlying the long-term impact of early stress on health and inform strategies for prevention and intervention to improve later life outcomes.

Prerequisite Skills or Academic Background Required:

A basic understanding of regression analysis and working knowledge of R is helpful, but training and supervision will be provided.

complexities of human health and disease, including clinical and population-based approaches		
2025_04 Physiological changes to emotions in infants with familial likelihood for neurodevelopmental conditions		
Supervisor:	**Prof Emily Jones, Dr Tessel Bazelmans (BBK)**	emily.5.jones@kcl.ac.uk; tessel.bazelmans@bbk.ac.uk
Website:	https://sites.google.com/view/bondcbcd & https://www.kcl.ac.uk/people/emily-jones	
Affiliated Lab:	Principle Investigator - Building the ontogeny of neurodiversity	
Campus:	Denmark Hill;	

Aims and Research Questions of the Project:

The project will use data from the longitudinal British Autism Study of Infant Siblings (BASIS) and consists of infants with and without a family history of autism and/or ADHD. The general goal of BASIS is to understand mechanisms that underpin neurodevelopmental conditions.

This project specifically will look at changes in heart rate in response to emotion videos in 5, 10 and 14 month-old infants. We will look at these physiological differences in infancy in association with autism and ADHD traits and other behaviours measured at 3 years of age. The student will also have the opportunity to attend/support during testing sessions with toddlers looking at sensory responses using EEG. These testing sessions will take place at Birkbeck Babylab. This project is a collaboration between King's College London and the Birkbeck Babylab and the student will spend time at both locations.

Prerequisite Skills or Academic Background Required:

complexities of human health and disease, including clinical and population-based approaches		
2025_05 Understanding the relationship between sensory differences and anxiety in autistic youth: a CBT-based feasibility study		
Supervisor:	**Dr Helen Powell**	helen.1.powell@kcl.ac.uk
Website:	https://www.kcl.ac.uk/research/translational-mental-health-and-autism-group	
Affiliated Lab:	1: Dr Matthew Hollocks - Principal Investigator - Autism and Mental Health; 2: Postdoctoral Researcher - Sensory Processing in Autism within Dr Hollock's lab	
Campus:	Denmark Hill;	

Aims and Research Questions of the Project:

This study aims to explore how sensory differences contribute to anxiety in autistic youth. Specifically, the research will investigate whether neurophysiological and perceptual markers of sensory processing can be modulated by a psychological intervention aimed at dealing with sensory-related anxiety. Autistic children, aged 11-16 years, will undergo 8 sessions of an intervention rooted in Cognitive Behavioural Therapy (CBT), and complete two 1:1 visits at pre- and post-intervention. These visits will include questionnaires on anxiety and sensory experiences, psychophysical tasks, as well as physiological recordings (e.g., EEG, ECG, skin conductance) during auditory, tactile and social touch tasks. This research will provide students with the opportunity to gain hands-on experience in data collection for a variety of sensory testing techniques (including EEG) and be involved with quantitative and/or qualitative data analysis.

Prerequisite Skills or Academic Background Required:

This project would be well-suited to psychology or biomedicine undergraduates, particularly those with an interest in sensory processing, mental health, or experimental research. Experience working with children or service users in a clinical setting would be desirable, but not essential.

development of methodologies, conceptual frameworks, technologies, tools or techniques that could benefit health-related research		
2025_06 Depression in African Countries: Measuring Recovery and Treatment Success		
Supervisor:	**Dr. Sam Gnanapragasam**	sam.gnanapragasam@kcl.ac.uk
Website:	https://www.kcl.ac.uk/people/melanie-amna-abas	
Affiliated Lab:	1. Principal Investigator (Professor Melanie Abas) - Global Mental Health. 2. PhD Wellcome Trust Clinical Fellow (Dr. Sam Gnanapragasam) - Global Mental Health, Project in Zimbabwe.	
Campus:	Denmark Hill;	
Aims and Research Questions of the Project:		
Depression is the leading cause of disability in adults worldwide, including in African countries. An important research gap is knowledge on how best to measure treatment recovery in cross-cultural African contexts This project aims to define successful treatment outcomes for individuals receiving psychological therapy for depression in African contexts, where mental health measurement tools are usually adapted from Western settings. Using existing data from Zimbabwe and potentially expanding to South Africa and Uganda, the study will explore methods for defining clinically significant change and treatment recovery using common measures such as PHQ-9. The project will provide training and opportunity to evaluate different statistical approaches—including the Reliable Change Index (RCI), Jacobson-Truax criteria, percentage reductions, and remission thresholds—to determine an optimal metric for assessing treatment response. The findings will inform the development of standardised and contextually sensitive metrics for evaluating the success of interventions treating depression in African contexts.		
Prerequisite Skills or Academic Background Required:		

development of methodologies, conceptual frameworks, technologies, tools or techniques that could benefit health-related research		
2025_07 Deterministic stress enhanced reduced order models to augment cardiovascular magnetic resonance imaging		
Supervisor:	**Dr Richard Jefferson-Loveday**	Richard.jefferson-loveday@kcl.ac.uk
Website:	https://www.kcl.ac.uk/people/richard-jefferson-loveday	
Affiliated Lab:	Principal Investigator - Computational Fluid Dynamics	
Campus:	Strand;	
Aims and Research Questions of the Project:		
Commonly haemodynamic studies use Reynolds Averaged Navier-Stokes (RANS) methods however these assume all flow structures and scales are of a stochastic nature which is an invalid assumption and therefore often leads to inaccurate results or requires careful choice of model and calibration for specific flow cases. Typically, they are unable to accurately account for transition and turbulent flow. This project perform high-fidelity eddy resolving simulations utilising the power of graphical processing units to dramatically speed up and increase the accuracy of simulations. Once demonstrated the simulations will be extended to run on supercomputers.		
Prerequisite Skills or Academic Background Required:		
Experience of Fluid Dynamics. Programming experience beneficial.		

development of methodologies, conceptual frameworks, technologies, tools or techniques that could benefit health-related research		
2025_08 Development of novel non-invasive indices of respiratory muscle strength for investigation of respiratory failure		
Supervisor:	**Dr Xinyue Ma**	Xinyue.1.ma@kcl.ac.uk
Website:	www.youtube.com/@kingsmusclelab5796	
Affiliated Lab:	Postdoctoral researcher within Dr. Caroline Jolley and Professor Gerrard Rafferty's Respiratory Main Muscle Laboratory.	
Campus:	Denmark Hill;	

Aims and Research Questions of the Project:

To determine whether diaphragm muscle fibre vibration, measured non-invasively by surface diaphragm mechanomyography (sMMGdi), and diaphragm muscle fibre electrical activity, measured non-invasively by high-density surface diaphragm electromyography (HDsEMGdi), can provide reliable non-invasive indices of volitional and non-volitional measures of diaphragm muscle strength in healthy individuals.

To advance research in respiratory health by focusing on respiratory muscle function, utilizing innovative physiological assessment techniques and biomedical engineering applications. This includes the development of multiple non-invasive biosensors, such as high-density surface diaphragm electromyography (HDsEMGdi)—an advanced biosensor employing 64 electrodes (channels) to analyze changes in muscle recruitment processes through high-resolution biomedical imaging. Additionally, respiratory muscle (motor unit) behavior will be characterized non-invasively using HD EMG metrics.

To demonstrate the feasibility and potential of these methodological approaches, paving the way for future, more comprehensive research proposals that will apply these novel non-invasive indices in patients with respiratory failure.

Prerequisite Skills or Academic Background Required:
This project will be suitable for biomedical engineering, medicine, physiology, and medical undergraduates.

development of methodologies, conceptual frameworks, technologies, tools or techniques that could benefit health-related research		
2025_09 Elucidating the neurophysiological biomarkers of dissociative experiences		
Supervisor:	**Dr Devin Terhune**	devin.terhune@kcl.ac.uk
Website:	https://www.kcl.ac.uk/people/devin-terhune	
Affiliated Lab:	Principal Investigator - Awareness & modulation lab.	
Campus:	Denmark Hill;	
Aims and Research Questions of the Project:		
Dissociation is a transdiagnostic set of symptoms involving a disruption in the integration of psychological systems supporting awareness, identity, memory, and perception. Relatively little is known about the neurophysiological bases of dissociation in both psychiatric disorders and the general population. One hypothesis is that elevated dissociation is characterised by increased neurophysiological signal complexity, reflecting a more diverse phenomenological repertoire in highly dissociative individuals. This project will involve analysis of an existing resting state EEG dataset in a large sample of participants with varying levels of dissociation. We will compute multiple measures of signal complexity and entropy and evaluate their efficacy in predicting dissociation using machine learning. This project will help to further strengthen our understanding of the neural bases of dissociation.		
Prerequisite Skills or Academic Background Required:		
no		

development of methodologies, conceptual frameworks, technologies, tools or techniques that could benefit health-related research		
2025_10 Modelling a multi-transducer ultrasound system for shear-wave elastography		
Supervisor:	**Jack Pearce**	jack.d.pearce@kcl.ac.uk
Website:	https://www.quiinlab.com/; https://kclpure.kcl.ac.uk/portal/en/persons/laura.peralta_pereira	
Affiliated Lab:	PhD candidate in Laura Peralta Pereira's group within Quantitative Ultrasound Imaging & Interventions Laboratory (QUIIN lab)	
Campus:	St Thomas';	
Aims and Research Questions of the Project:		
Shear wave elastography (SWE) is a non-invasive imaging technique for measuring the mechanical properties of tissues. SWE produces an elasticity map by tracking the propagation of shear waves. It consists of applying an acoustic radiation force deep into the tissue by using a focused beam of ultrasound. Ultrasound elastography is highly dependent on the quality of ultrasound data and images, which have poor resolution and sensitivity. Recently, we have developed a new multi-transducer ultrasound approach that coherently combines data from multiple probes to achieve images with significant improvements in resolution and sensitivity. The approach should allow much more accurate estimation of the displacement field from ultrasound data. This could be transformative for ultrasound elastography, improving the sensitivity and specificity of the technique. The aim of the project is to model the generation of shear waves by acoustic radiation force and its propagation in soft tissues using two different ultrasound transducers.		
Prerequisite Skills or Academic Background Required:		
This project is well suited to an engineer with programming skills and interests in medical ultrasound.		

development of methodologies, conceptual frameworks, technologies, tools or techniques that could benefit health-related research		
2025_11 Refining Photoacoustic Imaging Contrast Agents for Modern Medicine		
Supervisor:	**Dr Aisha N. Bismillah**	aisha.n.bismillah@kcl.ac.uk
Website:	McTernan Lab: https://www.mcternanresearchgroup.com/ and Bismillah profile: https://www.kcl.ac.uk/people/dr-aisha-n-bismillah	
Affiliated Lab:	Bismillah Group Focus: Organic Chemistry/Molecular Imaging/Energy Storage and McTernan Group Focus: Supramolecular Chemistry in Biomedical Science	
Campus:	Guy's;	

Aims and Research Questions of the Project:

Photoacoustic imaging (PAI) is a medical imaging technique that uses light pulses to create sound waves, which are then detected to create an image of the inside of the body. There has been limited development in the design of chromophore-based contrast agents to optimise the specific properties needed for PAI. The current state-of-the-art contrast agent for PAI is indocyanine green (ICG). Combining photoswitches with near-infrared (NIR)-absorbing units is an emerging strategy (with only one report to date) – a cyanine dye combined with an azobenzene switch showed ultrafast relaxation, >100-fold faster than ICG alone, leading to a 1000-fold increase in photostability and >3-fold increase in signal loudness. Ultimately, merging a photoswitch with a NIR-chromophore results in better image quality. The aim of this project is to combine light-activated photoswitches with NIR-chromophores to develop a fundamental understanding including design principles to form tailor-made contrast agents for use within PAI.

Prerequisite Skills or Academic Background Required:
This project encourages students to apply from the Department of Chemistry within King's College London. Desirable criteria (but not necessary) from a candidate to conduct a research project within the Bismillah group includes but is not limited to: (i) experience within a chemistry laboratory, (ii) involvement with organic synthesis and purification techniques and (iii) knowledge of chemistry-based software such as ChemDraw and MestReNova.

development of methodologies, conceptual frameworks, technologies, tools or techniques that could benefit health-related research		
2025_12 Simulating ultrasound data for next generation AI assisted imaging		
Supervisor:	**Mr Yi Li, Dr Laura Peralta**	yi.8.li@kcl.ac.uk, laura.peralta_pereira@kcl.ac.uk
Website:	https://www.quiinlab.com/, https://kclpure.kcl.ac.uk/portal/en/persons/yi-li-2 https://kclpure.kcl.ac.uk/portal/en/persons/laura.peralta_pereira	
Affiliated Lab:	1: PhD student within Dr Laura Peralta's Quantitative Ultrasound Imaging & Interventions Lab; 2: PI - Quantitative Ultrasound Imaging & Interventions Lab	
Campus:	St Thomas';	

Aims and Research Questions of the Project:

Medical ultrasound stands to benefit greatly from data-driven deep learning techniques. However, training robust deep models relies on substantial datasets of ground truth, which can be impractical to acquire for diverse scanning scenarios. To address this, this project proposes using simulations to generate synthetic ultrasound data for beamforming model development.

Specifically, the student will work with an effective ultrasound image simulation pipeline implemented in a MATLAB toolbox. By randomly sampling scatterer positions and imaging parameters, e.g. sampling frequency, resolution, they will simulate calibrated point scatter distributions and raw ultrasound channel data. This will mimic the input and output relationships of beamforming in real-world ultrasound.

In summary, this research uniquely utilizes simulations to unlock the power of data-demanding deep learning algorithms for medical ultrasound. Through this project, the student can gain valuable experience in simulation methodology in medical ultrasound, in order to assist in training deep learning models.

Prerequisite Skills or Academic Background Required:
The project is suited to students who have engineering/physics/mathematics background, and who would like to develop in-depth knowledge and skills in medical ultrasound simulation. Basic coding skills (especially in MATLAB) are preferred.

fundamental processes that underpin biology, to understand more about how life works		
2025_13 Exploring the impact of transcriptional regulation on the environmental adaptation of the human fungal pathogen Candida albicans.		
Supervisor:	**Dr Stella Christou**	stella.christou@kcl.ac.uk
Website:	https://www.kcl.ac.uk/research/mischo-lab	
Affiliated Lab:	PI Hannah Mischo "Regulatory Mechanisms of Transcription lab" with interest in gene expression regulation during host pathogen interactions.	
Campus:	Guy's;	

Aims and Research Questions of the Project:

Candida albicans is an opportunistic fungal pathogen, which resides within human mucosal tissue and becomes pathogenic in immunocompromised hosts. Due to their commensal phenotype/nature? C. albicans cells require quick adaptation to a vast range of conditions including growth in low pH, biofilm formation, growth with other microorganisms and nutrient starvation. What controls this fast adaptation that is essential for survival?
Our work investigates different transcriptional regulation mechanisms that control gene expression and adaptation. The aim of this summer work is to test a collection of mutants for their ability to adapt to physiologically relevant environments on the cellular and gene-expression level.
We will employ a set of molecular techniques, cell and fungal culture techniques to answer these questions.

Prerequisite Skills or Academic Background Required:

Fascination for biology and an interest in molecular biology.

fundamental processes that underpin biology, to understand more about how life works		
2025_14 Investigating the control of Cryptic Last Exons – a new frontier in mRNA regulation		
Supervisor:	**Dr Matthew Bostock**	matthew.bostock@kcl.ac.uk
Website:	https://devneuro.org/cdn/people-detail.php?personID=11	
Affiliated Lab:	Post-doctoral Fellow - The functional regulation of Cryptic Last Exons as a model of RNA splicing	
Campus:	Guy's;	
Aims and Research Questions of the Project:		
My project focuses on an RNA splicing event called Cryptic Last Exons (CLEs), previously identified in neurodegenerative models such as ALS. My research has shown that CLEs are expressed during neuronal development in specific spatiotemporal patterns, translated, and, in the case of the ephA4b CLE, play a role in regulating axonal growth. I propose to investigate the mechanisms governing CLE splicing. Together with an undergraduate researcher, I will examine regulatory sequences upstream of CLEs in pre-mRNA and perform knockout experiments using Cas9. Additionally, we will employ dCas13, a catalytically inactive version of Cas13 that specifically binds RNA, to assess its effect on CLE splicing. By targeting these sequences with dCas13 and analysing splicing outcomes via RT-PCR, we aim to determine whether CLE splicing is disrupted. This project will combine molecular biology with histological and imaging techniques, providing an undergraduate with valuable hands-on experience in a wet lab setting.		
Prerequisite Skills or Academic Background Required:		
Suitable for candidates with biological/neuroscientific background		

fundamental processes that underpin biology, to understand more about how life works		
2025_15 Investigating the role of Wilms' tumour 1 in cardiac outflow tract development		
Supervisor:	**Dr Joaquim Nunes Vieira**	joaquim.nunes_vieira@kcl.ac.uk
Website:	https://www.kcl.ac.uk/people/joaquim-nunes-vieira; https://kclpure.kcl.ac.uk/portal/en/persons/joaquim.nunes_vieira	
Affiliated Lab:	Joaquim Nunes Vieira - Cellular and Molecular Interactions Underpinning Normal Heart Development	
Campus:	Denmark Hill;	

Aims and Research Questions of the Project:

Congenital heart defects are the most common form of birth defects with a proportion of these resulting from abnormal outflow tract (OFT) septation and development (e.g. truncus arteriosus, bicuspid aortic valve). To-date the aetiology of such defects remains ill-defined.

Here, we will explore a novel role for the essential transcription factor Wilm's tumour 1 (WT1) during heart development with a specific focus on outflow tract development. Based on the group's pilot data, Wt1+ lineage contributes to cells in the OFT. Moreover, mouse models with low or no expression of Wt1 exhibit abnormal OFT development.

In this project, we will the following hypothesis:

- WT1 activity in second heart field (SHF) progenitors contributing to OFT expansion is essential for the correct cell migration and differentiation into semilunar valve components.

To test this hypothesis, we will:

a) characterise the expression of WT1 during OFT development using mouse samples at different developmental stages, including wild type and tdTomato reporter;
b) assess OFT development in SHF-specific Wt1 KO hearts.
Samples will be available at the start of the project and the student will be trained in tissue micro dissection, tissue processing for cryosectioning, immunofluorescence, genotyping, imaging and data analysis.

Prerequisite Skills or Academic Background Required:

This project is suitable for medical students with (some) knowledge in normal heart development and congenital heart disease

fundamental processes that underpin biology, to understand more about how life works		
2025_16 The roles of mRNA regulation in neuronal homeostasis		
Supervisor:	**Jernej Ule**	jernej.ule@kcl.ac.uk
Website:	https://www.ukdri.ac.uk/labs/ule-lab	
Affiliated Lab:	RNA networks in neurodegeneration	
Campus:	Denmark Hill;	

Aims and Research Questions of the Project:

The student will join a team of researchers to study the role of mRNA regulation as a homeostatic mechanism that can prevent the potential toxic accumulated condensation-prone proteins that are linked to neurodegeneration. The project will ask how mRNA regulation responds to environmental stresses, and how this impacts the molecular cascades leading to neurodegeneration.

Prerequisite Skills or Academic Background Required:

no

fundamental processes that underpin biology, to understand more about how life works		
2025_17 Understanding upstream signalling pathways that modulate Esrrg.		
Supervisor:	**Dr. Shri Vidhya Seshadri**	shri_vidhya.seshadri_srinivasan@kcl.ac.uk
Website:	https://www.kcl.ac.uk/people/lisa-nolan	
Affiliated Lab:	Postdoctoral research associate within Dr. Lisa Nolan's laboratory.	
Campus:	Guy's;	

Aims and Research Questions of the Project:

Around 11 million people across the UK have hearing loss which affects 1 in 6 of the UK population either from birth or acquired through the course of life. The Nolan Lab is focused on understanding sex-differences in auditory function in health and disease.

We are also interested in understanding the molecular mechanisms underlying genes associated with sensorineural or age-related hearing loss. We are currently investigating a gene that encodes an orphan nuclear receptor linked to hearing loss called Estrogen-related receptor gamma (ESRRG), and identifying its function in the mouse auditory system. The aim of this project is to investigate the expression profile of candidate Esrrg-associated ligands/ interacting proteins in embryonic and adult mouse brain and cochlear tissue. We will collaborate with Dr. Zoe Mann and her team for generating embryonic sections. The project will introduce the student to a variety of techniques such as cryosectioning, immunolabelling and confocal microscopy.

Prerequisite Skills or Academic Background Required:

This project will be suitable for students from varied backgrounds such as Neuroscience, Biomedical sciences, Biology, Physiology and related sciences.

social, cultural, political and historical contexts of human health and disease		
2025_18 Public Mental Health – international study		
Supervisor:	**Dr Mariana Pinto da Costa**	mariana.pintodacosta@kcl.ac.uk
Website:	https://www.kcl.ac.uk/research/an-international-study-on-public-mental-health-work-opportunities-and-training	
Affiliated Lab:	Senior Lecturer - Department of Psychological Medicine	
Campus:	Denmark Hill;	

Aims and Research Questions of the Project:

This international study has aimed: i) To investigate the extent of public mental health work, opportunities, barriers, and training; ii) To identify key public mental health work opportunities and barriers for people from different parts of the world.

The data from this international cross-sectional survey has been collected and is available for the selected student to analyse, with the support of the supervisor.

This dataset includes the views of different key stakeholder groups, including mental health professionals, policymakers, public health professionals, primary care practitioners, medical students and people with lived experience of mental illness.

The student will use and strengthen skills on statistical analysis and presentation of the data.

There will be opportunities for the student to contribute to this study dissemination and article publication.

Prerequisite Skills or Academic Background Required:

This project would be particularly suitable for medicine, neuroscience or psychology undergraduates.