Project Details	
Project Code	MRCNMH25Ca Chawner
Title	Unlocking the causes of eating disorders: investigating risk factors across development
Research Theme	Neuroscience & Mental Health
Project Type	Dry Lab
Summary	Tackling eating disorders is of growing importance in society, with increasing numbers of children and young people referred to eating disorder services. This PhD project focuses on ARFID (Avoidant/Restrictive Food Intake Disorder), an eating disorder characterised by the restricted intake or avoidance of food. This project aims to uncover the causes of ARFID, paving the way for better clinical support and treatment. You will be part of an international multidisciplinary team of academic experts and people living with ARFID, learn cutting edge data science methods and will benefit from working closely together with ARFID clinicians and services.
Description	Background Avoidant Restrictive Food Intake Disorder (ARFID) is an eating disorder characterised by the restriction or avoidance of food intake, often beginning in childhood but can persist into adulthood, leading to malnutrition and psychological distress . Unlike other eating disorders, ARFID is not driven by body image concerns but by factors such as sensory sensitivity, fear of adverse consequences, or a lack of interest in eating. Initial population estimates indicate a 1-2% prevalence, yet ARFID remains under-researched. This PhD project aims to address this knowledge gap by leveraging the unique Born in Bradford (BiB) dataset. BiB is a longitudinal cohort study that follows the health and development of over 13,500 children born in Bradford, UK, along with their families. The latest wave of data collection, Age of Wonder, includes measures of eating disorders including ARFID developed by the supervisory team. The BiB cohort is a multi-ethnic, economically deprived population (two-thirds of participants are from the most deprived quintile in the UK), and therefore this research will allow the inclusion of societal groups historically excluded from eating disorders research. Key Research Question What are the risk factors contributing to the development of ARFID, and how do these factors interact over time? Specific Objectives 1. Conduct a Qualitative Study Exploring the Priorities of Young People Living with ARFID o Objective: To gain in-depth insights into the lived experiences of young individuals with ARFID and their priorities for future research. o Methods: Design and conduct semi-structured interviews with young people living with ARFID. Analyse qualitative data using thematic analysis to identify common themes and unique perspectives. This objective will benefit from the supervisory team's links to Beat (leading UK eating disorder charity). o Student Ownership: The student will design the interview topic guide, enabling them to define the focus of the interviews. They will ensure the voices of young people are central to the research agenda.

	2. Identify Longitudinal Predictors of ARFID o Objective: To determine early-life predictors of ARFID by analysing longitudinal data from the BiB cohort including, environmental measures from early childhood, growth patterns, neurodevelopmental features, and early childhood health records. o Methods: Train in longitudinal data analysis, such as mixed effect models, and latent trajectory analysis. o Student Ownership: The student will conduct a literature review and combine with their qualitative work to decide on the predictors, identify critical developmental time points for longitudinal analysis. 3. Investigate Genetic Risk Factors of ARFID o Objective: To explore the contributions of genetic factors to ARFID by analysing genomic data available in the BiB cohort. o Methods: We have already determined the presence of genetic variants in the BiB cohort that increase risk of psychiatric outcomes. The student will be able to link this to the ARFID data in this cohort to determine if these psychiatric risk variants also confer risk for ARFID. Bioinformatic analyses will reveal what biological pathways risk variants are involved in. By combining with environmental risk factor information, they can also explore the possibility of gene-environment interactions. o Student Ownership: The student will design the gene-environment analyses. Student's Role and Project Ownership Throughout the studentship, the student will have substantial opportunities to take ownership and steer the project. They will be supported to: ● Develop and refine research questions and hypotheses ● Take the lead in designing and executing specific analyses, both quantitative and qualitative. ● Engage with the highly active BiB community of participants, individuals living with ARFID, as well as schools, government, health services and charities, to ensure the research addresses questions meaningful for people with lived experiences and has a positive impact on their lives. ● Present findings at conferences and lead on publications, showcasing their work to the broader scientific community. ● Collaborate with interdisciplinary teams, including geneticists, epidemiologists, psychologists, and public health experts, to enrich their research experience and skills. This PhD project offers a comprehensive training in mental health research, integrating genetic, developmental, environmental, and lived experience perspectives. The BiB cohort will ensure the student will have access to a rich resource for in-depth analysis, positioning them at the forefront of the newly developing ARFID research field. The student will benefit from training opportunities in data science, genetics and qualitative methods at Cardiff and Bristol Universities. The supervisory team publishes regularly in prestigious high-impact journals and hold prestigious grants and fellowships (>£30 million), and are part of a range of national and international collaborations the student will benefit

	from. Collaborators furthermore facilitating this project include Prof Francesca Solmi (at UCL) who has expertise with epidemiology and analysing the Born in Bradford dataset. The project supervisors have built a rich network of stakeholders, including clinical services, eating disorder charity Beat and policymakers providing opportunities for the student to translate research findings into clinical and policy impacts.
Supervisory Team	
Lead Supervisor	
Name	Dr Samuel Chawner
Affiliation	Cardiff
College/Faculty	Medicine
Department/School	Division of Psychological Medicine and Clinical Neurosciences
Email Address	ChawnerSJ@cardiff.ac.uk
Co-Supervisor 1	
Name	Dr Helen Bould
Affiliation	Bristol
College/Faculty	Bristol Medical School
Department/School	Centre for Academic Mental Health, Population Health Sciences
Co-Supervisor 2	
Name	Professor Marianne van den Bree
Affiliation	Cardiff
College/Faculty	Medicine
Department/School	Division of Psychological Medicine and Clinical Neurosciences
Co-Supervisor 3	
Name	Dr Tamsin Newlove-Delgado
Affiliation	Exeter
College/Faculty	University of Exeter Medical School
Department/School	Children and Young People's Mental Health Research Collaboration