NIHR | Applied Research Collaboration Greater Manchester

My ARC-GM Research Internship Journey

Georgina Wood
Paediatric Metabolic Dietitian
Manchester University NHS Foundation Trust

Why did I apply?

Working at one of the largest paediatric metabolic centres in the UK, I provide dietetic support to patients with some of the rarest inherited metabolic disorders (IMDs), yet understandably the evidence-base underpinning their dietetic treatments can be quite limited.

I want to help change this.

However, I needed dedicated time to learn more about clinical research and improve my skillset. Therefore, the internship felt like the perfect stepping stone into the world of clinical research.

My objectives

Improve my knowledge, understanding and skills within clinical research.

↓

Become equipped with all the necessary knowledge and skills to design my own research project within inherited metabolic disorders and apply for a Pre-doctoral fellowship and subsequently a PhD.

Learning opportunities

- MRes Module in Critical Appraisal and Evidence Synthesis
- ARC-GM Core Teaching, Resources, PPIE and Meetings
- Networking and Peer Support
- R+D North West Releasing Potential Workshops
- Good Clinical Practice Training
- Conferences and showcases

Practical application and achievements

- Passed my MRes Module in Critical Appraisal and Evidence Synthesis
- In the process of conducting my own Systematic Review
  - Registered my Systematic Review Protocol
  - Conducted my own searches
  - Used Rayyan to complete Abstract and Full Text Screening

A systematic review of the impact of low protein diets on growth outcomes in patients with methylmalonic acidaemia and propionic acidaemia
PROSPERO 2025 CRD420251023842

- Defined my own research question looking at Parenteral Nutrition (PN) in IMDs and identified potential supervision team to progress to applying for a Pre-doctoral fellowship
- Attend monthly Research Meetings within the IMD Department and analyse food diaries for a gene therapy trial
- Contributed to a successful Grant Application
- Contributed to a Systematic Review Protocol
- Completed an Audit and delivered poster presentation at an international conference
- Registered a Service Evaluation examining our use of PN in IMDs

A systematic review to explore whether blood amino acid levels fluctuate in women of reproductive age over the menstrual cycle
PROSPERO 2025 CRD420251042026

Reflections

Next steps

Complete and publish Systematic Review on growth outcomes in propionic acidaemia and methylmalonic acidaemia patients

↓

Complete Service Evaluation on the use of Parenteral Nutrition in the acute management of patients with inherited metabolic disorders

↓

Apply for Pre-doctoral Fellowship to continue my own personal development and research at pre-doctoral level

↓

To use research to help inform dietetic practice in inherited metabolic disorders, to improve efficiency, quality, and safety of dietetic patient care

Acknowledgements

Dr Sorrel Burden – Internship Supervisor, Reader in Nutrition and Dietetics, University of Manchester

Professor Anita MacDonald - Dietetic Department, Birmingham Women's and Children's Hospital

Dr Alex Pinto – Dietetic Department, Birmingham Women's and Children's Hospital

Thank you to the Paediatric Dietetic Team in Manchester for supporting me in completing this internship

NHS Manchester University NHS Foundation Trust | MANCHESTER 1824 The University of Manchester | NHS Birmingham Women's and Children's NHS Foundation Trust

Georgina Wood is supported by an National Institute for Health and Care Research (NIHR) Applied Research Collaboration Greater Manchester Internship. The views expressed are those of the author(s) and not necessarily those of the NIHR or the Department of Health and Social Care.