

## Keele SPCR internship projects 2025

**Name & email supervisor(s):**

Ailish Byrne  
Dr Sara Muller  
Professor Toby Helliwell

**Length and dates of internship:**

4 weeks full time equivalent between Monday 9<sup>th</sup> June and Friday 26<sup>th</sup> September.  
Full or part time is possible and weeks need not be consecutive (note Sar Muller, who will oversee analysis, will not be available weeks beginning 4<sup>th</sup> and 11<sup>th</sup> August).

**Host department:**

School of Medicine, Keele University

**How will the internship be conducted:**

- In person at the university
- Virtual/ from home
- Both are possible, depending on preference of student

**Title internship project:**

The search for a prodrome for giant cell arteritis in the primary care record – a CPRD study

**Summary of the internship project:** *(max 250 words, can include hyperlinks to further information)*

Giant cell arteritis (GCA) is a form of large vessel vasculitis effecting older people. It can cause serious complications, including blindness. Rapid treatment is required, but when symptoms do not present in a typical pattern, recognition and timely treatment can be difficult. This internship will build on previous work using primary care records (from the [Clincial Practice Research Datalink](#), CPRD) of people with and without a diagnosis of GCA to understand whether results of common investigations (e.g. blood tests) can be used to increase the suspicion of GCA in people presenting to primary care.

We already have a dataset in which we have looked at two investigations (blood pressure, haemoglobin). Before the internship starts, we will gain permissions from CPRD to extend this project to include other common investigations (e.g. ferritin, platelets) and develop clincial code lists. The intern will work with the lead supervisor to extract the results of the investigations from the CPRD dataset, process them and compare the frequency of test requests and abnormal findings between those with and without GCA.

The intention is to publish this work in an academic journal, with the intern as a co-author. Should a sufficient signal be found to warrant further research into how these investigations could be used to improve the diagnostic pathway for GCA, we intend to apply for funding to do this. Dependent on the career stage and interest of the intern, involvement in this work may also be possible.

**Learning objectives:**

The intern will

Gain an understanding of the use of medical records in research

Develop skills in the processing and analysis of large dataset

Have opportunities to work with patient partners and or the support charity PMRGCAuk

**Any further information:**

This project would be ideally suited to a student of data science or other discipline with strong data handling skills.