WTDTP Projects for September 2023

Project Reference: T1/57

Project Title: **Genetic epidemiology of chronic cough**

Theme(s): Theme 1: Genomics for drug development & pharmacogenetics

Primary Supervisor: Dr Catherine John (University of Leicester) [cj153@leicester.ac.uk](mailto:cj153@leicester.ac.uk)

Secondary Supervisor(s): Prof Martin Tobin (University of Leicester)  
Dr Chiara Batini (University of Leicester)

Department: Health Sciences

Project Summary: Nearly everyone will have had an annoying cough from time to time, but some people experience persistent, unexplained cough which may last weeks, months or years. This can be exhausting, debilitating and may lead to dizziness, muscle pain and even vomiting. It is thought that abnormalities of the nerves supplying the airways are involved, but the mechanisms are not fully understood. There are currently no effective drug treatments for chronic cough, leaving few options for people with the condition.

Studying genetic variation which increases the risk of chronic cough is one route to better understand the biological mechanisms involved and identify potential drug targets.

In this project, you will explore datasets and approaches for studying the genetics of chronic cough, and use bioinformatic methods to discover genes and pathways which may shed light on the development of chronic cough. You will be supported by supervisors with expertise in both the methods and datasets which underpin this project.