

Applicant

Dr. Claudia Langenberg, University of Cambridge
Trainee: Laura Wittemans

E-mail Address

Claudia.Langenberg@mrc-epid.cam.ac.uk

Project Title

Identifying the genetic determinants of lean and fat body compartments measured by DEXA

Project Summary

We are aiming to understand why certain people have more fat or muscle mass in specific areas of their bodies (e.g., legs, arms, abdominal and hip areas) than others. Understanding what causes these differences is important because certain patterns of body composition are known to lead to higher risk of diseases, such as type 2 diabetes and heart disease. An X-ray-based technology called DEXA has been used to measure the composition of specific body areas of the CLSA participants. In this project, we aim to assess the effects of millions of variants in the genome of the participants on these measures of lean and fat mass. By doing this, we hope to identify genes that drive the accumulation of lean and fat mass in specific areas of the body, which will help us better understand the mechanisms that drive patterns of body composition and how they affect disease risk.

Keywords

Genetics, Body composition, DEXA