Grants Awarded

Project Summary

Utility of a novel imaging biomarker for the identification of excess cardiovascular risk in auto-immune rheumatic diseases

Jessica Ellis, RUH Bath - £19,950.92

People with rheumatology conditions such as lupus and scleroderma, suffer from higher amounts of cardiovascular disease than the general population. Cardiovascular disease includes serious problems like heart attacks and stroke. Rheumatic diseases cause inflammation in the body. We think inflammation is one of the main causes of this increased cardiovascular disease.

It is difficult to know which patients are at most risk of future cardiovascular problems. The methods we currently use can underestimate this risk, and sometimes only identify problems at a late stage when treatments may be less likely to work.

A new way of identifying high risk patients has been developed. This method uses CT scans. It looks for changes near the blood vessels that suggest inflammation in that area and therefore increased cardiovascular risk.

In this project we will use existing CT scans from lupus and scleroderma patients, and measure inflammation on these scans. We will then see whether we could have identified increased cardiovascular risk using existing tools. We will also use a large national database of scans, to see whether rheumatology patients are more likely to have this inflammation.

We hope this project will improve the identification of cardiovascular disease in rheumatology patients.