TCS/19/39 - Delineating disease-relevant T cell subsets in rheumatoid arthritis: potential biomarkers of therapeutic response

Rheumatoid arthritis (RA) is an immune-mediated disease leading to joint pain, disability, and reduced quality-of-life. Currently, we have a wide range of drugs available, but they do not work in all individuals and in those for whom there is a response, this is often partial. Treatment must also be given life-long with the risk of side-effects. Ideally, each individual would receive the medicine that has the highest chance of success and lowest risk of toxicity. We recently found a cell type in blood that seems to be present in people with RA who do not benefit from their current treatment. Here, we will investigate how these cells can be used as a test to inform future response to treatment. This study has the potential to reveal new biological markers of treatment response in RA. It also has the potential to find new targets for the development of more effective medicines.