

Application number/Title: 20152 - The relationship between adiposity and low grade inflammation as mediators of metabolic dysfunction

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Funding body: Internally funded as part of a PhD project

Keywords provided by the Applicant PI to describe the research project:

CRP, Inflammation, adiposity, Fat, diabetes, MRI

Application Lay Summary:

1a: There is controversy on the mechanisms by which metabolic abnormality occurs. One hypothesis, is the defect in adipose tissue expandability leading to ectopic fat accumulation. However, its underlying mechanism has not yet been fully understood. In recent years, increasing evidence have shown that chronic low-grade inflammation is a critical biomarker of metabolic complication and can be a link between adipose tissue dysfunction and these complications. We will investigate in a cross-sectional study the relation between fat accumulation measured by BMI, waist, and MRI and CRP levels, as a marker of systematic inflammation.

1b: Our research aims to improve health care by investigating the relation between inflammation and adiposity to provide a better diagnosis, treatment and prevention of the metabolic complications associated with obesity.

1c: We will conduct a cross-sectional study to look at body fat deposition, both amount and location, and their relation to baseline T2DM and other chronic diseases. We will investigate the different patterns of obesity and tell which form is more linked to inflammation, and whether this is mediated by chronic diseases at baseline.

1d: The full cohort