



Application number/Title: 21394 - Metabolomics and Genomics of habitual coffee intake and health

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

Coffee, biomarker, cardiometabolic, genetics, omic

Application Lay Summary:

1a: Coffee is one of the most widely consumed beverages in the world, and may provide a safe, effective, and readily available preventive/therapeutic agent against multiple diseases and conditions. We are currently studying known and novel metabolite markers of coffee consumption that are amendable to genetic modification. In the current proposal we extend this work by conducting candidate gene-coffee interaction studies on cardiometabolic traits and cognitive function in the UK Biobank cohort.

1b: Coffee is one of the most widely consumed beverages in the world and thus represents a significant opportunity to positively affect cardiometabolic health globally. In efforts to identify mechanisms by which coffee impacts health we are proposing health-related research that is in public interest and thus we believe our study meets the UK Biobank's purpose.

1c: We are currently conducting metabolomic and genomic studies of coffee consumption using population-based and clinical based designs. Confirmed metabolite loci will be used to derive genetic scores for coffee exposure and applied in tests of gene -coffee interactions on cardiometabolic traits and cognitive function in the UK Biobank cohort (N~500,000).

1d: Full cohort for data analysis