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Summary of research

Key words: Hypertension, blood pressure, depression, comorbidity, genes

Application Lay Summary:

1a: The primary aim of this research is to identify genetic associations with blood pressure/hypertension and to explore how genetic risk factors for blood pressure/hypertension might overlap with genetic risk factors for depression. This will be achieved by conducting genome-wide association studies (GWAS), making use of data from the UK Biobank genotyping project, specifically the phenotype and genetic data available to us within the approved application 6553.

1b: This project is linked to previous analyses our team have undertaken on Biobank data in the areas of mood disorder, cognitive function, cardiometabolic disease, pain and ethnicity and meets Biobank's stated purpose of improving the prevention, diagnosis and treatment of illnesses by identifying genetic associations with hypertension. Insights from this work will lead to a better understanding of disease processes in hypertension and depression, better approaches to diagnosis and ultimately the development of new treatments.

1c: This work will consist of genome-wide association studies (GWAS), making

use of data from the UK Biobank genotyping project.

1d: This GWAS study on hypertension will make use of phenotypic and genetic data on all Biobank participants (the full cohort).