



Application number/Title: 23033 - Genes, personality and culture

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

Neuroticism, Genetics, Culture

Application Lay Summary:

1a: There is a widespread common sense that neuroticism (NE) is poor social adaptation. Subjects with high NE have poor health and well-being and lower ability of emotion regulation. However, this common sense idea has been challenged by studies conducted in Asian samples. Those studies have shown Asian adults with higher NE have better heart condition and better emotion regulation, which is in contrast with what was found in Caucasian population. The main goal of our research is to test genetic contributions to the interaction of neuroticism and culture in health and emotion regulation.

1b: With considerable size of Caucasian, South Asian and East Asian samples, UK Biobank would be an ideal data pool to conduct our research. Our work broadens the scope of investigation on NE from Caucasian population to other ethnic groups. The idea of "adaptive neuroticism" may offer a much-needed balance to the currently popular point of view on NE. Our work will also offer new insights into how genes may interact with culture, thereby providing a solid understanding on how mental condition is co-shaped by the diversity of cultural and biological factors.

1c: With multiple cutting-edge methods, we will identify the differences of gene contribution in neuroticism among different ethnic groups and test how

these differences influence physical and mental health conditions and functions.

1d: We will need the full cohort.