WTDTP Projects for September 2023

Project Reference: T4/52

Project Title: **Developing a framework to increase diversity in genomic studies**

Theme(s): Theme 4: Ethical, legal and social implications of genomics and genomic epidemiology studies

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Project Summary: Genomic epidemiology and public health genomic studies are primarily based on individuals of European ancestry, which constitute 86% of all research participants, a much larger proportion than is present in the global population. This bias has important consequences. First and foremost, it directly results in genomic and potentially health inequality. The potential benefits of genomic research, such as improved understanding of causes of diseases, early diagnosis, and improved and targeted clinical care, may in fact not apply to many underserved populations such as ethnic minorities. In addition, the Eurocentric bias impacts on the discovery power for all participants. Several clinically-relevant genetic variants have been identified only when looking at specific populations groups, highlighting biological mechanisms of relevance for all patients.

The purpose of this PhD studentship therefore, will be to further our understanding on diversity and inclusion in genomic research, with the aim of developing a framework to overcome the current biases.

The student will be embedded within a team of experts in equality, diversity and inclusion, ethnic minority health, genomics and evolutionary biology, and will receive training in a broad range of both quantitative and qualitative data analysis techniques.