

**Pleiotropic Associations with Alzheimer's Disease and Physical Activity: Sex Differences
and the Effects of Environment**

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SUPPLEMENTARY INFORMATION

Supplementary information includes one Text file and two Tables:

1. Supplementary Text

Text S1: Supplementary Acknowledgment Text

2. Supplementary Tables

Table S1: Univariate and pair-wise pleiotropic associations of selected SNPs with AD and PA in the US cohorts, males and females separately and combined.

Table S2: Pair-wise pleiotropic associations of selected SNPs with AD and PA and their comparison in the UKB and US meta sample, males and females separately and combined.

1. Supplementary Text

Text S1: Supplementary Acknowledgment Text.

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UK Biobank is a large-scale biomedical database and research resource containing genetic, lifestyle and health information from half a million UK participants. UK Biobank's database, which includes blood samples, heart and brain scans and genetic data of the 500,000 volunteer participants, is globally accessible to approved researchers who are undertaking health-related research that's in the public interest.

UK Biobank recruited 500,000 people aged between 40-69 years in 2006-2010 from across the UK. With their consent, they provided detailed information about their lifestyle, physical measures and had blood, urine and saliva samples collected and stored for future analysis.

UK Biobank's research resource is a major contributor in the advancement of modern medicine and treatment, enabling better understanding of the prevention, diagnosis and treatment of a wide range of serious and life-threatening illnesses – including cancer, heart diseases and stroke. Since the UK Biobank resource was opened for research use in April 2012, over 20,000 researchers from 90+ countries have been approved to use it and more than 2,000 peer-reviewed papers that used the resource have now been published.

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This research has been conducted using data from UK Biobank, a major biomedical database.