

Play a Part in Parkinson's Research

Immunochip genotyping on DNA samples from PPMI

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Summary

SNP genotyping was performed using Illumina Immunochip on 523 whole-blood extracted DNA samples collected according to the PPMI Research Biomarkers Laboratory Manual. The Immunochip is an Illumina Infinium iSelect HD Custom Genotyping array containing 196,524 polymorphisms (718 small insertion deletions, 195,806 SNPs) designed to perform deep replication of major autoimmune and inflammatory diseases, and fine mapping of established GWAS significant loci. Included are 1,920 SNPs designed to replicate Parkinson's disease associated loci.

Method

Genotyping on Illumina Immunochip array was performed per manufacturers protocol (Illumina, Inc. San Diego). The Genotyping Analysis Module within Genome Studio version 1.9.4 was used to analyze data. The threshold call rate for sample inclusion was 95%. Quality control of sample handling was determined by comparing the subject's sex reported by Coriell Institute for Medical Research with the genotypic sex estimated from X chromosome heterogeneity. X chromosome heterogeneity calculations were based on common SNPs from the International HapMap Project that had genotypes with missingness <5% and hardy-Weinberg equilibrium (HWE) p values >1E-5. Samples containing discrepancies between reported sex and genotypic estimated sex were excluded.

References

International Parkinson Disease Genomics Consortium, Nalls MA, Plagnol V, Hernandez DG, Sharma M, Sheerin UM, Saad M, Simón-Sánchez J, Schulte C, Lesage S, Sveinbjörnsdóttir S, Stefánsson K, Martinez M, Hardy J, Heutink P, Brice A, Gasser T, Singleton AB, Wood NW. Imputation of sequence variants for identification of genetic risks for Parkinson's disease: a meta-analysis of genome-wide association studies. Lancet. 2011 Feb 19;377(9766):641-9. PubMed PMID: 21292315; PubMed Central PMCID: PMC3696507.



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Parkinson's Progression Marker Initiative Research Biomarkers Laboratory Manual (Biologic Manual) http://www.ppmi-info.org/wp-content/uploads/2011/05/PPMI-Biologics-Manual-April-2011-FINAL.pdf.

Product information page:

http://www/illumina.com/applications/genotyping/custom_genotyping.ilmn

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