

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: **Locus-to-gene scores for loci associated with HNRNPK by the OpenTargets L2G pipeline (Version 5).**

Data from Open Targets Genetics, <https://genetics.opentargets.org/> (Version 5).

(a) All loci with an L2G score for HNRNPK.

(b) Selected traits only, grouped by traits.

(c) Selected traits only, ordered by L2G score for HNRNPK.

File Name: Supplementary Data 2

Description: **PhenomeXcan and PhenomeXcan_SingleTissue results for HNRNPK, IGSF8 and SNCA.**

(a–b) PhenomeXcan gene search for HNRNPK, (a) RCP > 0.1, (b) RCP>0.01 (RCP, Regional Colocalization Probability).

(c–e) PhenomeXcan Single Tissue gene search for HNRNPK with trait Standing height (c), Impedance of whole body (d), Trunk fat percentage (e).

(f–g) PhenomeXcan gene search for IGSF8, (f) RCP > 0.1, (g) RCP>0.01.

(h) PhenomeXcan Single Tissue gene search for IGSF8 with trait Leg fat percentage (right).

(i–j) PhenomeXcan gene search for SNCA, (i) RCP > 0.1, (j) RCP>0.01.

(k–l) PhenomeXcan Single Tissue gene search for SNCA with trait Comparative height size at age 10 (k), Standing height (l).

(m) Variant-level GWAS-eQTL colocalisation as reported by PhenomeXcan's fastENLOC step, displayed for the gene-trait pairs and GTEx tissues highlighted in Table S2 tissue-level tables. Link-out URLs are provided to Open Targets Genetics variant-level browser (to facilitate variant-level browsing across other genetic datasets).

(n) Variants comprising the expression prediction models of PhenomeXcan's PrediXcan steps (to illustrate how many and which variants are used to predict genetically-regulated gene expression of HNRNPK, IGSF8 and SNCA) and URLs to Open Targets Genetics variant-level browser (to facilitate variant-level browsing across other genetic datasets).

Rows referring to pre-selected traits (PhenomeXcan consensus results across tissues) or neuro/endocrine tissues and cell types (PhenomeXcan_SingleTissue tables) are highlighted by direction of effect, blue (negative) or red (positive).

Column descriptions for PhenomeXcan tables (adapted from <https://phenomexcan.org>) are phenotype_source: 'UK Biobank' or other cohorts; rcp: Regional Colocalization Probability (fastENLOC/ENLOC); pvalue: p-value from S-MultiXcan; best_sign: sign of effect of the most significant tissue ['+' ('-') means higher (lower) expression is associated with higher risk or higher value of phenotype]; consensus_sign: sign of effect of the consensus among those tissues with pvalue < 1e-4 ['+' and '-' as for best_sign column]; n_tissues: number of tissues available to S-MultiXcan when computing significance for a gene; n_indep: number of independent components of variations among n_tissues.

Column descriptions for PhenomeXcan_SingleTissue tables are P value: p-value from S-PrediXcan; zscore: Z-score from S-PrediXcan; effect_size: effect size from S-PrediXcan.

PIP: posterior inclusion probability.