

Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: List of covariates included in the WGBS analyses

File Name: Supplementary Data 2

Description: WGBS data processing and mapping statistics

File Name: Supplementary Data 3

Description: WGS data processing and mapping statistics

File Name: Supplementary Data 4

Description: Summary of SNP discovery and polymorphic CGs

File Name: Supplementary Data 5

Description: List of variable CpG-specific and conserved CpG-specific transcription factor (TF) motifs

File Name: Supplementary Data 6

Description: Genomic coordinate and annotation of CG DMRs between NeuN+ and OLIG2+ conserved in the brains of all three species

File Name: Supplementary Data 7

Description: Gene ontology (GREAT) output for genes associated with conserved CG DMRs between NeuN+ and OLIG2+

File Name: Supplementary Data 8

Description: Genomic coordinate and annotation of human- and chimpanzee- brain specific CG DMRs

File Name: Supplementary Data 9

Description: Association of differentially expressed genes (DEG) and DMR-genes

File Name: Supplementary Data 10

Description: Three-dimensional chromatin Interaction profiles for human neuron CG DMRs

File Name: Supplementary Data 11

Description: Gene ontology output (ShinyGO) for three-dimensional chromatin Interaction profiles for human neuron CG DMRs

File Name: Supplementary Data 12

Description: TF motifs significantly associated with human hypomethylated DMRs

File Name: Supplementary Data 13

Description: Partial correlation analysis explaining correlation coefficient between methylation and expression account for effects from other methylation contexts

File Name: Supplementary Data 14

Description: Multiple linear regression models explaining variation of gene expression levels of humans and human-chimpanzee difference

File Name: Supplementary Data 15

Description: Significant levels of human-specific DMR-genes for human-specific WGCNA modules

File Name: Supplementary Data 16

Description: List of CH DMR genes

File Name: Supplementary Data 17

Description: The list of GWAS traits and references used in LD score regression analyses

File Name: Supplementary Data 18

Description: LD score regression results

File Name: Supplementary Data 19

Description: List of human-specific neuron hypomethylated DMRs and conserved neuron hypomethylated DMRs harboring credible schizophrenia-associated SNPs ($P < 10^{-5}$)