

Description of Additional Supplementary Files

File name: Supplementary Data 1

Description: METH binge and saline samples of 4 rat brain regions for RNA-seq and ATAC-seq data with quality control parameters and RIN information.

File name: Supplementary Data 2

Description: Region-specific genes and open chromatin regions (OCRs) identified in 4 normal brain regions.

File name: Supplementary Data 3

Description: GO terms enriched in region-specific genes and open chromatin regions of 4 normal rat brain regions.

File name: Supplementary Data 4

Description: Differential expressed genes (DEGs) identified in 4 rat brain regions responding to binge METH exposure.

File name: Supplementary Data 5

Description: Enriched biology processes separately based on up and down-regulated DEGs in 4 rat brain regions.

File name: Supplementary Data 6

Description: Binge METH exposure induced differential accessible regions (DARs) in 4 rat brain regions.

File name: Supplementary Data 7

Description: Biology processed enriched in more and less accessible DARs of 4 rat brain regions.

File name: Supplementary Data 8

Description: Distribution of DARs in 4 rat brain regions. Number of more and less accessible DARs located in genomic promoter, exon, intron and intergenic regions. Number of mouse orthologous regions of rat brain DARs with cis-regulatory elements including CTCF-only, DNase-H3K4me3, promoter, proximal enhancer and distal enhancer.

File name: Supplementary Data 9

Description: Enriched mouse phenotypes of orthologous DARs with cis-regulatory annotations.

File name: Supplementary Data 10

Description: Number of orthologous DARs in rat, mouse and human genomes.

File name: Supplementary Data 11

Description: More and less accessible DARs had ortholog interactions with validated enhancers of human and mouse from VISTA Enhancer Browser.

File name: Supplementary Data 12

Description: The human-rat ortholog regions of rat brain OCRs contained the GWAS SNPs associated with neuron biology.

File name: Supplementary Data 13

Description: Transcription factors binding motifs enriched in more and less accessible DARs of 4 brain regions.

File name: Supplementary Data 14

Description: DARs contained the transcription factors binding motifs in 4 rat brain regions.

File name: Supplementary Data 15

Description: GO enrichment analysis of DARs contained different transcription factors binding motifs.