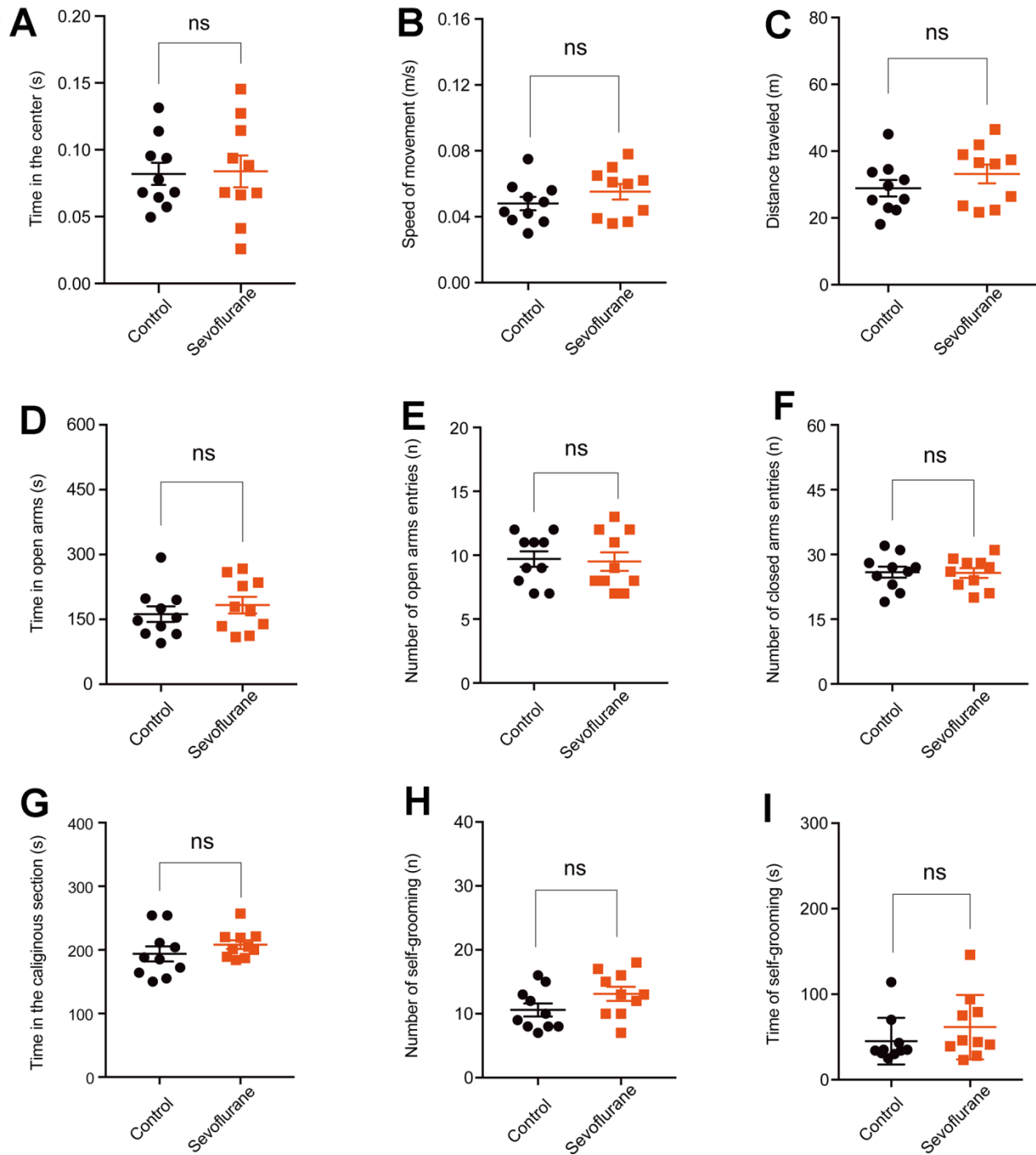
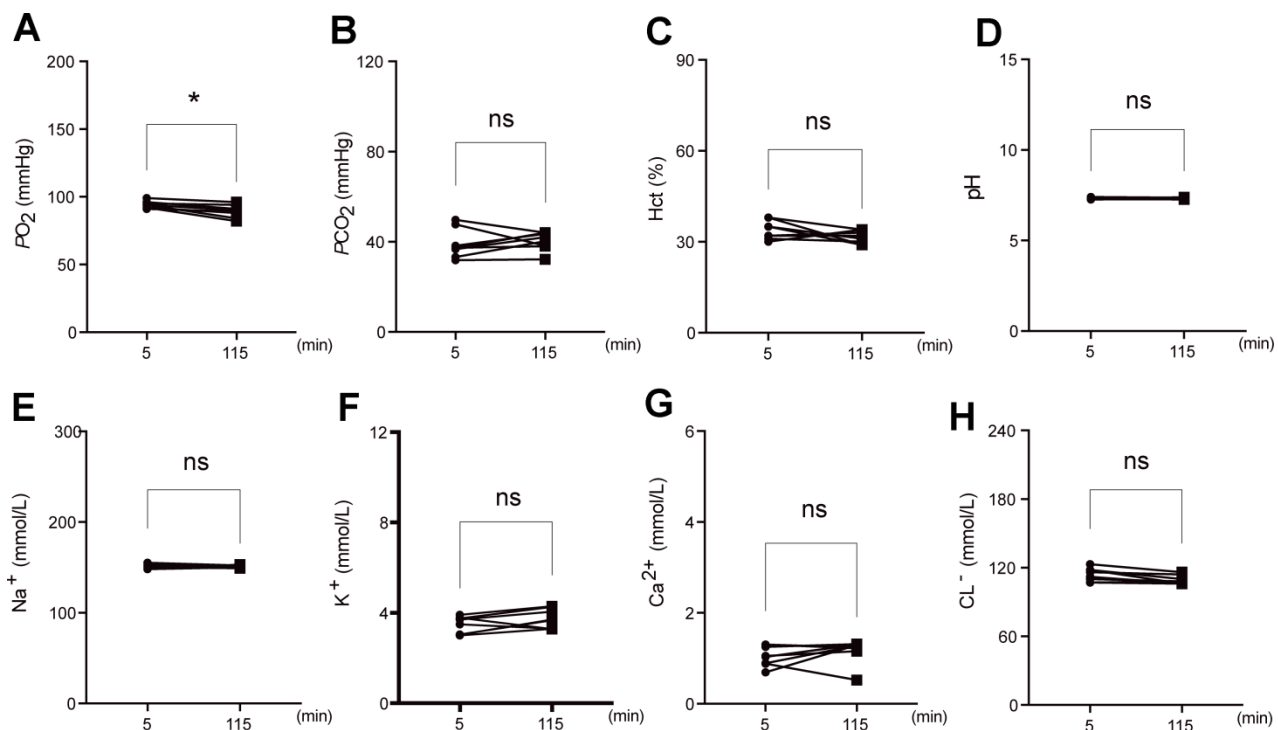


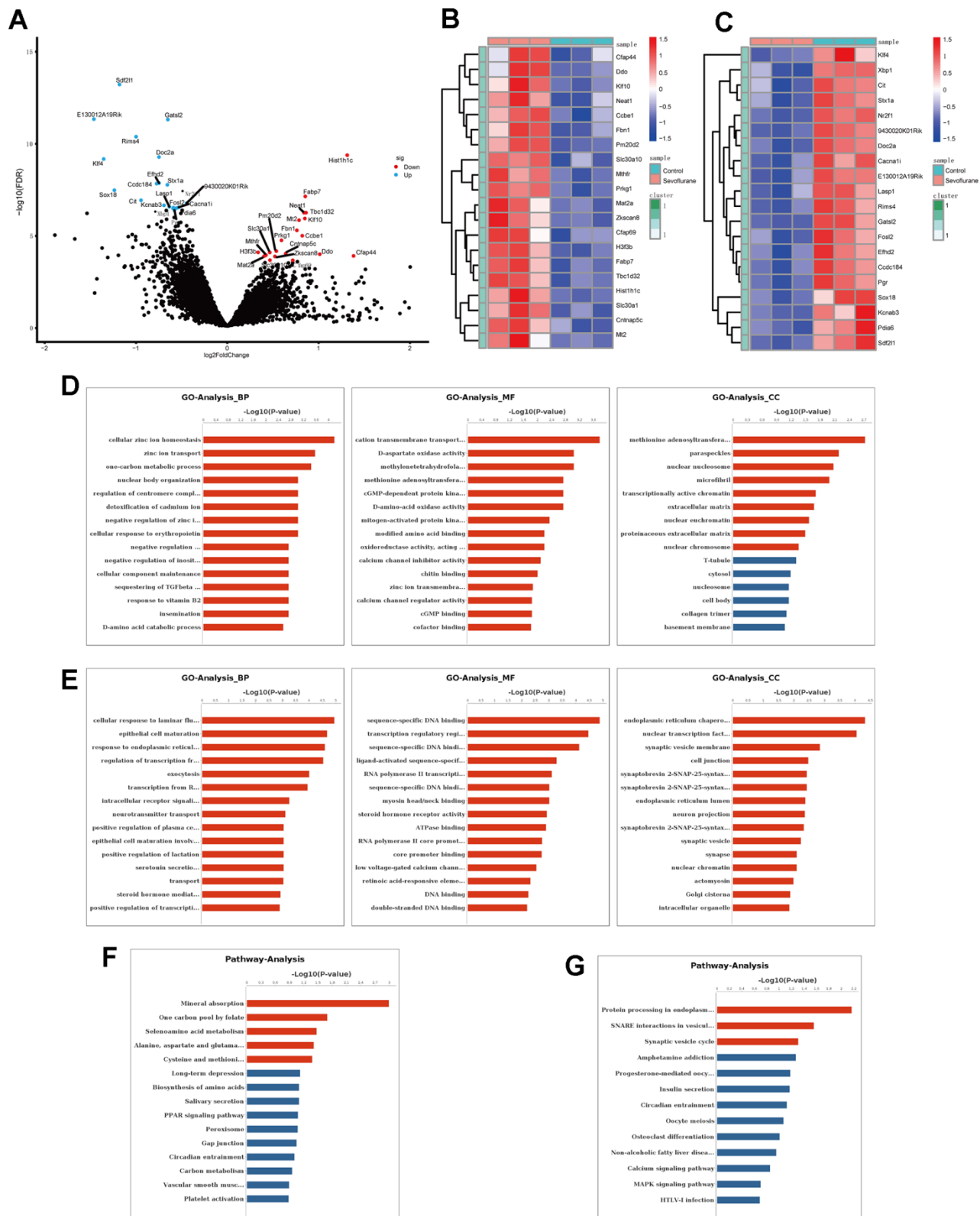
## SUPPLEMENTARY FIGURES



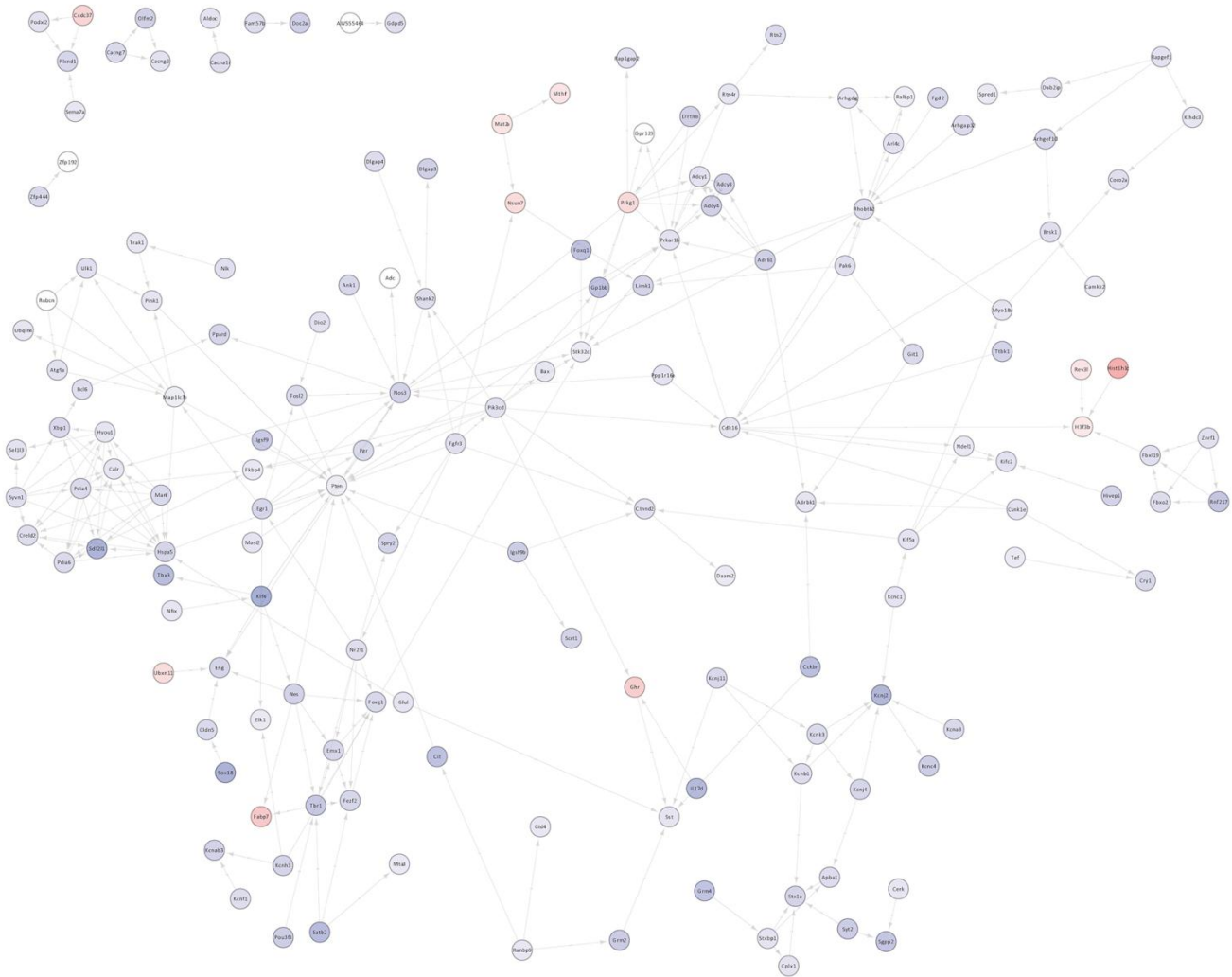
**Supplementary Figure 1. Multiple sevoflurane exposures did not induce anxiety-like, depression-like, or stereotyped behaviors.** (A–C) Open field test showing no significant differences in time spent in the center, speed of movement, or distance traveled. (D–F) Elevated plus maze test showing no significant differences in time of exploring open arms, numbers of open arms entries, or numbers of closed arms entries. (G) Light-dark box test showing no significant difference in time spent in the caliginous section. (H, I) Self-grooming test showing no significant differences in numbers and time of grooming.  $n = 10$ .



**Supplementary Figure 2. Arterial blood gas analysis of mice receiving sevoflurane.** Blood samples were taken at 5 min and 115 min during anesthesia on postnatal day 10. (A) PO<sub>2</sub>. (B) PCO<sub>2</sub>. (C) Hct. (D) pH. (E) Na<sup>+</sup>. (F) K<sup>+</sup>. (G) Ca<sup>2+</sup>. (H) Cl<sup>-</sup>. PO<sub>2</sub>, arterial oxygen tension; PCO<sub>2</sub>, arterial carbon dioxide tension; Hct, hematocrit. n = 8. \*p < 0.05 for the comparison shown.



**Supplementary Figure 3. Analysis of top 20 up- and down-regulated DEGs.** (A) Top 20 up- and down-regulated DEGs labeled in volcano plot. (B) Heatmap of top 20 up-regulated DEGs. (C) Heatmap of top 20 down-regulated DEGs. (D) GO terms of BP, MF, and CC based on the top 20 up-regulated DEGs. (E) GO terms of BP, MF, and CC based on the top 20 down-regulated DEGs. (F) Pathway analysis of top 20 up-regulated DEGs. (G) Pathway analysis of top 20 down-regulated DEGs. BP, biological process; MF, molecular function; CC, cellular component. Blue columns indicate terms or pathways without significant difference.



**Supplementary Figure 4. PPI network of DEGs in hippocampal tissues between sevoflurane-treated and control mice.**