

SUPPLEMENTARY DATA

Supplementary Data 1 (Related to Fig. 4B-D). Proteomic data from neuronal cultures, contrasting control female (*Ddx3x*^{+/+}) and male (*Ddx3x*^{+/-}) neurons (Supplementary Data 1A), *Ddx3x* haploinsufficient female (*Ddx3x*^{+/-}) and control female (*Ddx3x*^{+/+}) neurons (Supplementary Data 1B), or *Ddx3x* null male (*Ddx3x*^{-/-}) and control male (*Ddx3x*^{+/-}) neurons (Supplementary Data 1C). The table reports the relative abundance, raw abundance, and spectral counts for each sample and then the average per genotype. Source data are provided as a Source Data file.

Supplementary Data 2 (Related to Fig. 4H). Proteomic data from cortical synaptosomes, contrasting *Ddx3x* haploinsufficient female (*Sox2-Ddx3x*^{+/-}) and control female (*Sox2-Ddx3x*^{+/+}) mice. The table reports the relative abundance, raw abundance, and spectral counts for each sample and then the average per genotype. Source data are provided as a Source Data file.

Supplementary Data 3 (Related to Fig. 4J). Expression of the 37 proteins with altered levels in *Ddx3x*^{+/-} neurons and a sex bias in expression. The mean normalized abundance for each genotype and the expression ratio are shown. Source data are provided as a Source Data file.