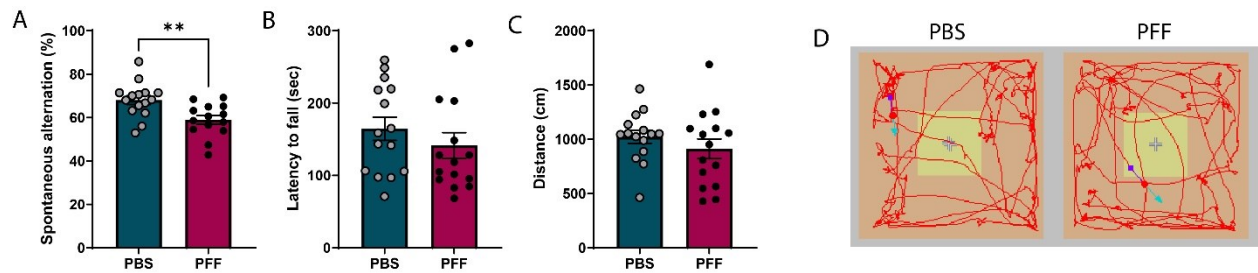


**Figure S1. eEPSC and PPR in layer 5 neurons show no alterations.**

A) Representative image of stimulation (left) and recording electrode (right). Scale bar 50  $\mu$ m. B) Evoked EPSC amplitudes from PBS and PFFs injected mice. 10, 20, 40, 60, 80, 100, 120  $\mu$ A (PBS= 186.22  $\pm$  44.25, 197.67  $\pm$  45.06, 229.44  $\pm$  49.86, 240.56  $\pm$  44.84, 267.03  $\pm$  43.82, 287.94  $\pm$  48.51, 306.59  $\pm$  46.45 pA) (PFF =154.91  $\pm$  22.70, 158.91  $\pm$  23.60, 191.32  $\pm$  29.34, 233.15  $\pm$  33.24, 259.25  $\pm$  33.44, 287.40  $\pm$  36.87, 332.59  $\pm$  38.82 pA) C) Traces of eEPSC D) Paired pulse ratios from PBS and PFF mice. 30 ms, 50 ms, 100 ms, 150 ms.(PBS = 1.04  $\pm$  0.06, 0.99  $\pm$  0.05, 0.96  $\pm$  0.04, 0.90  $\pm$  0.03 ratio)(PFF= 0.99  $\pm$  0.05, 1.00  $\pm$  0.06, 0.93  $\pm$  0.04, 0.96  $\pm$  0.04) E) Traces of paired pulses after stimulation in layer 5. Data in B, D are expressed as means  $\pm$  S.E.M. B-C (PBS, n=8-9; PFF n=10-12 neurons from 3 mice). Data in D (PBS, n=5; PFF n=5). \*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001; (B,D) Student's t-test.

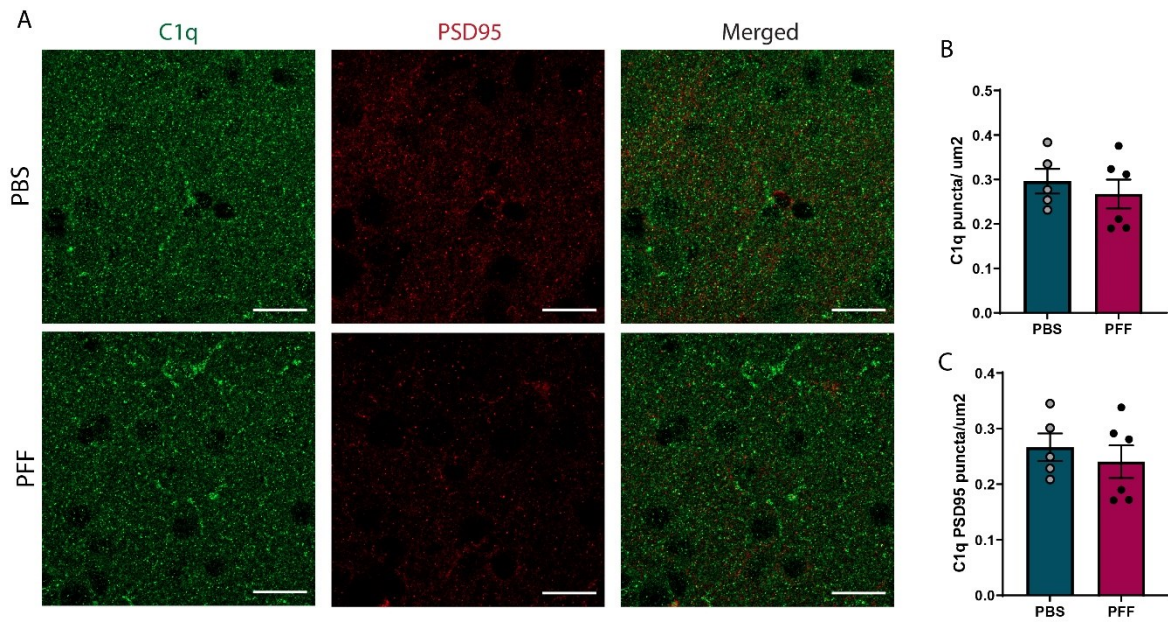


**Figure S2. Behavioral alterations 20 weeks after PFF injection.** A) Y maze

spontaneous alteration percentage B) Latency to fall in the rotarod test. C) Open field distance

(cm). D) Diagram of open field movement trace. Data in A-C are expressed as means  $\pm$  S.E.M. A-

C (PBS, n=15; PFF n=14 mice). \*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001; Student's t-test



**Figure S3.** C1q levels in layer 5 of the somatosensory cortex. A) Representative immunofluorescence images against C1q (green) and PSD95 (red) B) Quantification of C1q puncta in layer 5. C) Quantification of C1q co-localization with postsynaptic terminals. Data in B-C are expressed as means  $\pm$  S.E.M. (PBS, n=5; PFF n=6 mice). \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ ; Student's t-test