

## **$\alpha$ -Synuclein Fibrils Recruit Peripheral Immune cells in the Rat Brain Prior to Neurodegeneration**

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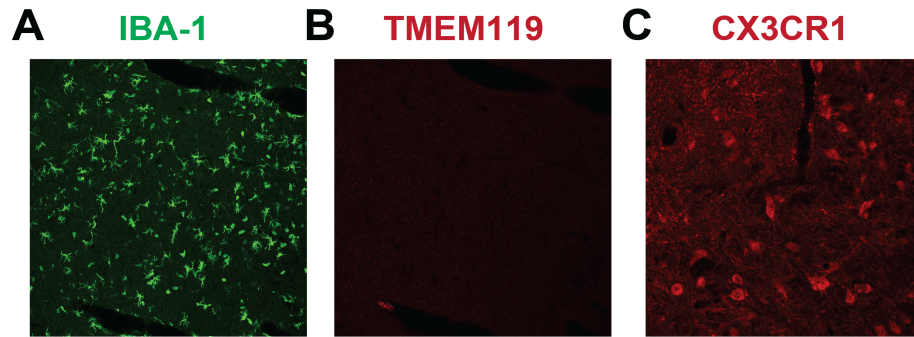
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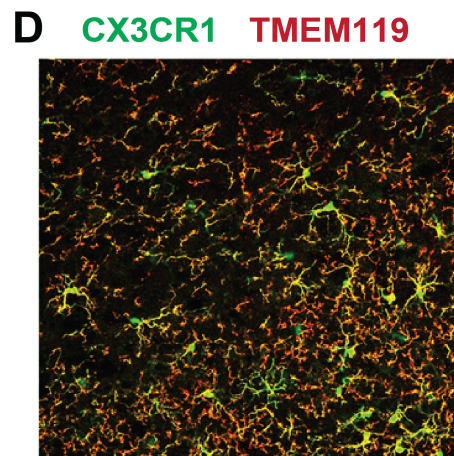
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### **Supplemental Figures**

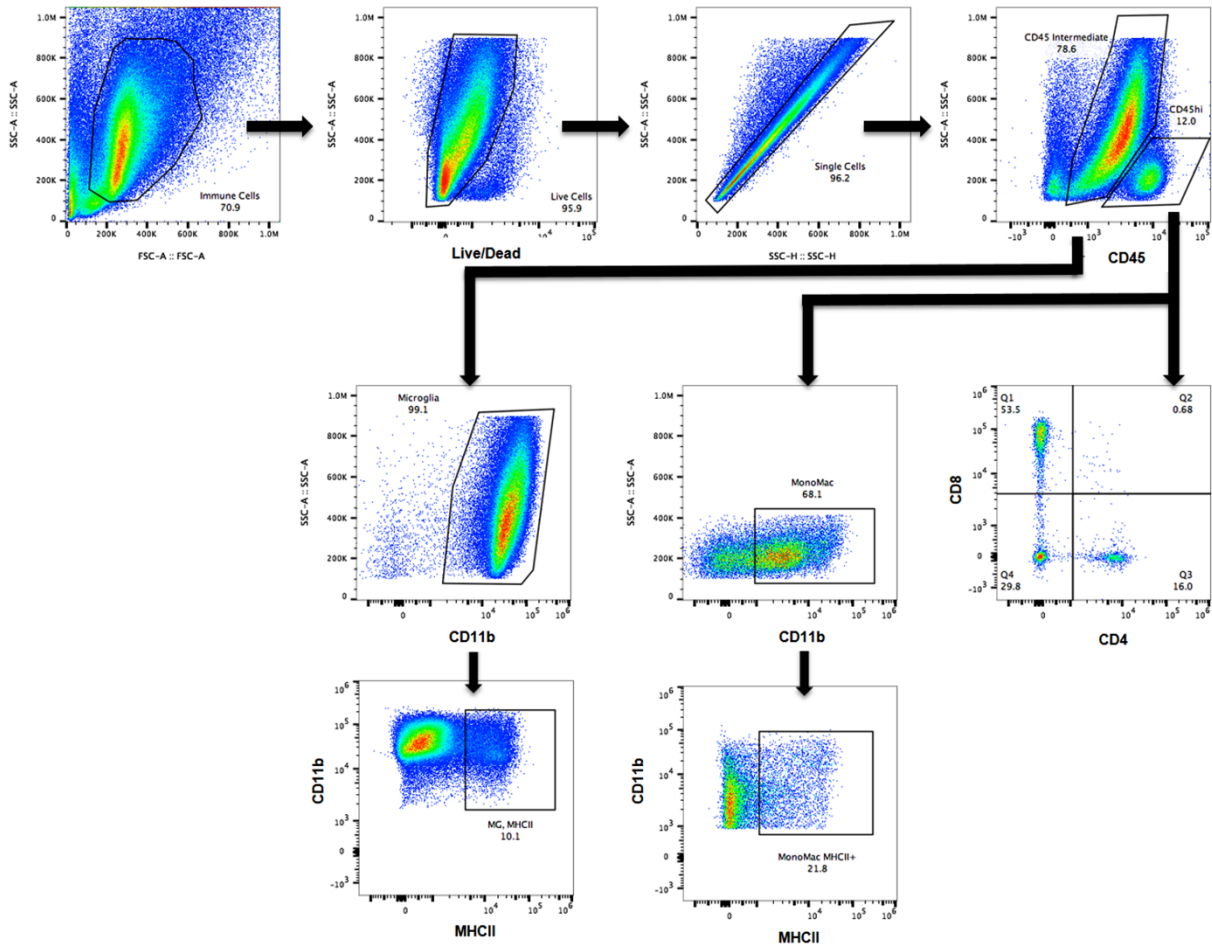
### Rat SNpc- $\alpha$ -Syn fibril injected



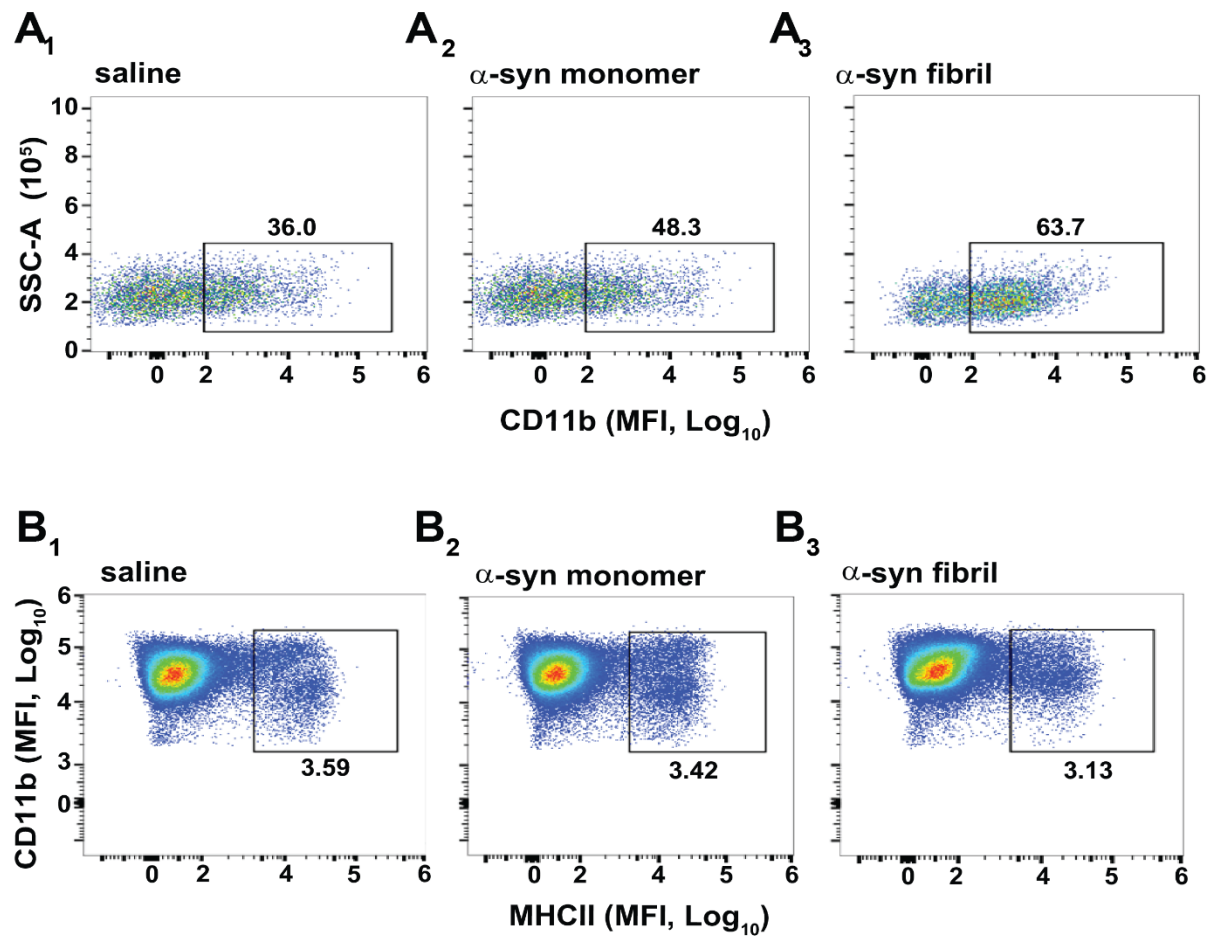
### Mouse SNpc



**Supplemental figure 1.** Representative confocal images of the rat SNpc (coronal sections), evaluated in fibril-injected rats 6-months post injection. (A) IBA-1 is shown in green, highlighting cells with morphology of microglia. (B) Antibodies to TMEM119 (monoclonal clone 28-3) failed to produce appreciable signal. (C) Antibodies to CX3CR1 (polyclonal Abcam, N-terminal epitope AA 2-21) cross-reacted with cells with the morphology and density of neurons in the SNpc, and did not show evidence of detecting microglia or myeloid cells. (D) In contrast, these antibodies demonstrated efficacy in labeling mouse microglia in the SNpc, from untreated WT- C57BL6J coronal sections.



**Supplemental figure 2.** Overview of flow cytometry gating strategy.



**Supplemental figure 3.** (A) Flow cytometry analysis of live CD45<sup>hi</sup>, CD11b-expressing monocytes and macrophages in dorsal striatum tissue isolates from 45 rats bi-laterally injected with either saline, monomer, or α-synuclein fibrils and analyzed eight-weeks post injection. (B) MHCII expression in this cell population denotes pro-inflammatory polarizations.