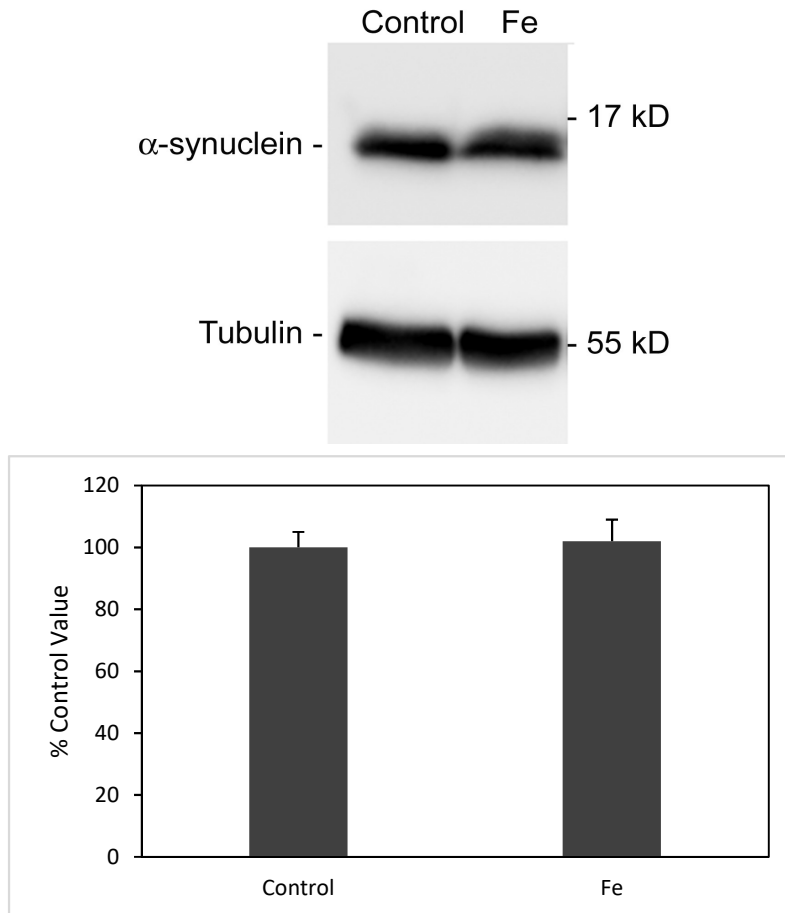


Supplementary Data

## Model Senescent Microglia Induce Disease Related Changes in Alpha-synuclein Expression and Activity.

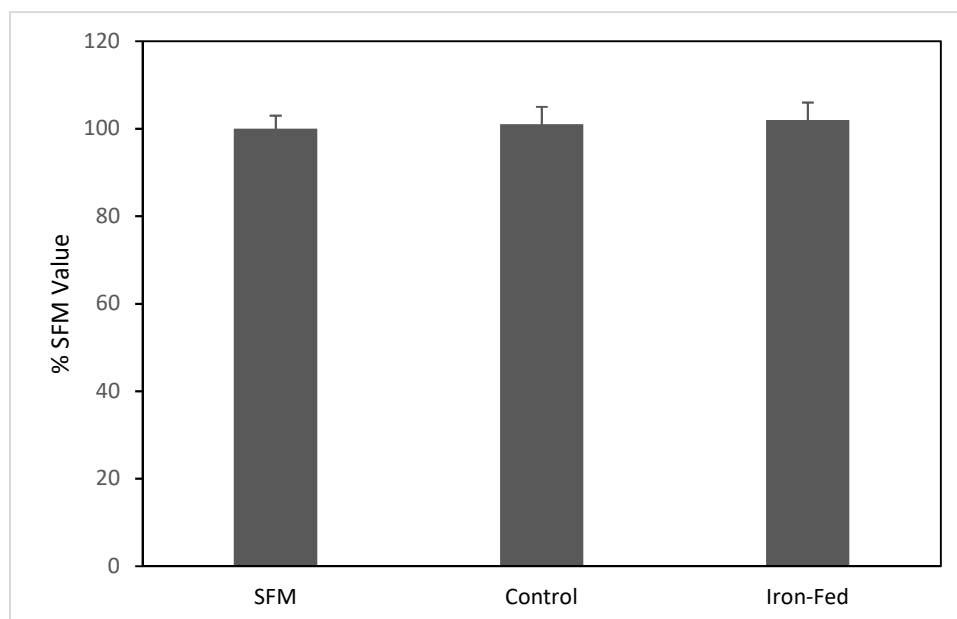
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**Supplementary Figure 1** Iron and  $\alpha$ -synuclein expression.

SH-SY5Y cells were grown in serum free medium for 24 h. Control cells were grown only in the serum free medium while iron treated cells (Fe) were grown in 50  $\mu$ M ferric ammonium citrate. After 24 h the cells were harvested, and protein extracted. Equal amounts of protein were eletrophoresed on a 14% PAGEgel. After semi-dry transfer to a membrane  $\alpha$ -syn was detected with a specific antibody (MJFR1) and bands detected with chemiluminescence. The detected bands were quantitated densitometrically. The process was repeated after stripping the blot and tubulin was detected with a monoclonal antibody. Treatment with iron had no effect on the levels  $\alpha$ -syn detected. Shown are the mean and S.E.M for four experiments.



**Supplementary Figure 2:** Toxicity of conditioned medium.

The toxicity of conditioned medium from C8B4 microglia was tested on SH-SY5Y cells. The cells were treated for 24 h with either serum free medium (SFM), conditioned medium from control microglia (Control) or iron-fed microglia (Iron-Fed). The survival after 24 h was determined using an MTT viability assay. Neither the medium from control microglia nor iron-fed microglia had any significant ( $p > 0.05$ ) effect on SH-SY5Y cell viability when compared to SFM. Shown are the mean and S.E.M for four separate experiments with three replicates each.



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