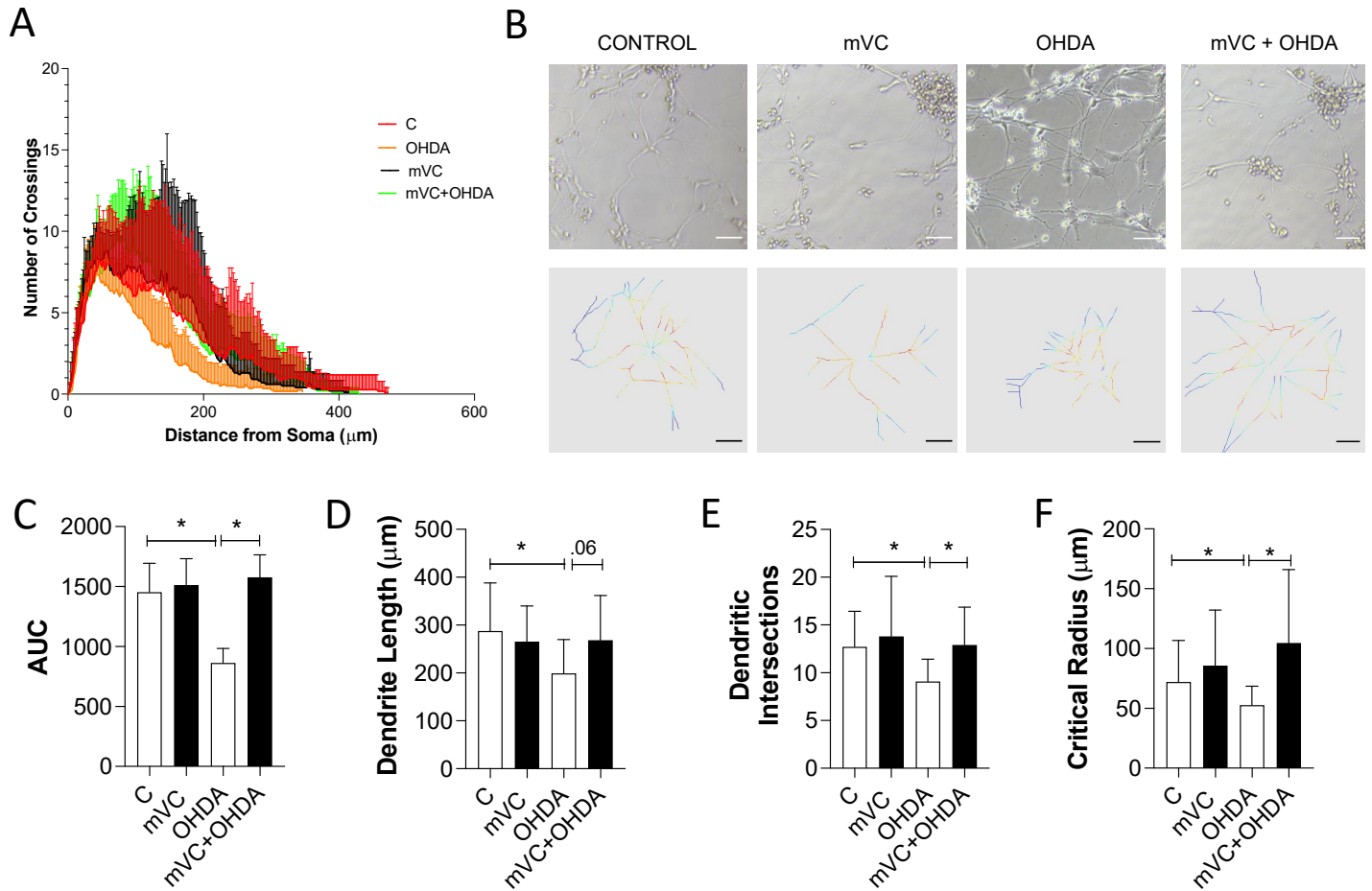
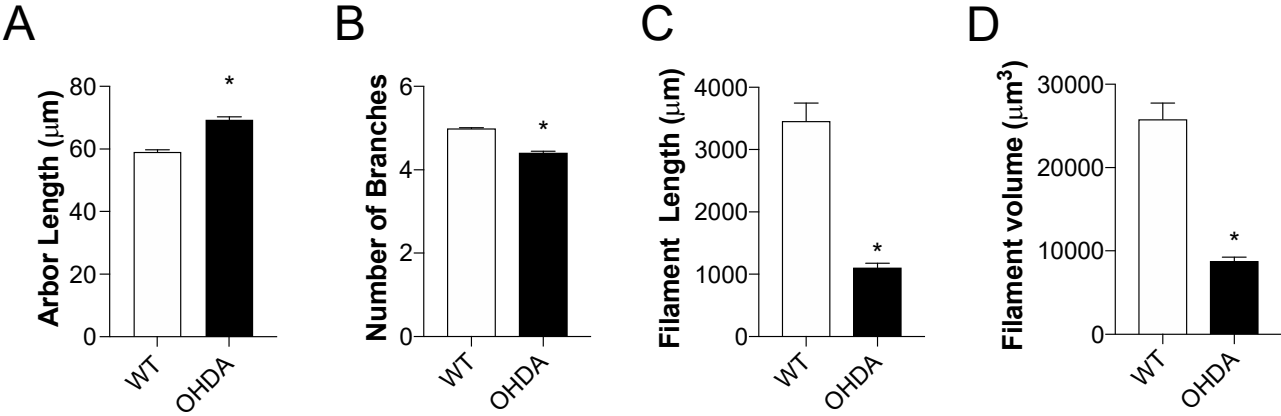


Supplementary Figure 1



Supplementary Figure 1. Mature neurons cultured in the presence of chronic VEGFR-3 ligand display improved neuroprotection in-vitro. (A) Quantification of total dendritic intersections through Sholl analysis of HiPSC-NSC control, mVC, 6-OHDA and mVC-6-OHDA neurons. (B) Representative raw and skeletonized Sholl intersection micrograph of HiPSC-NSC (control, VEGFR-3-specific mutant VEGF-C (mVC), 6-hydroxydopamine (6-OHDA represented as OHDA in figures) and mVC+6-OHDA) mature neurons HiPSC. (C) Area under the curve (AUC) calculated from Sholl intersections previously tested and (D) dendrite length; (E) dendrite intersection; and (F) critical radius of the dendritic processes. (B) scale bar= 100 μm , (A-C) $n=10,10$ (D, E, F) $n=10$. Statistically significant differences are indicated with asterisks, $*p < 0.05$, (A, C, D, E, F) Bars represent mean \pm SD.

Supplementary Figure 2



Supplementary Figure 2. Analysis between untreated control and 6-OHDA induced adipose tissue denervation. Comparison of neuronal architecture between wild type (WT) and WT mice denervated with 6-hydroxydopamine (OHDA) in the adipose tissue: (A) Dendrite arbor length (length measured from the cell body) (B) Dendrite branching (C) Dendrite filament length (D) Dendrite filament volume in adipose depot.