



Figure 2 – figure supplement 1. A) Total number of muscle stem cells along the entire length of myofibers isolated uninjured control and sciatic nerve transection (SNT) tibialis anterior (TA) muscles from young (2-3 mos.) and aged (20-22 mos.) Pax7-tdTomato mice. Myofibers were isolated with the myotendinous junctions attached at each end to ensure the entire length of the fiber was isolated. Data represents the mean of 4 biological samples for each group, and at least 10 myofibers were quantified from each sample. ** $p < 0.01$, *** $p < 0.001$. B) Total number of myonuclei within each synapse from isolated myofibers of uninjured control and SNT (TA) muscles from young and aged mice. Data represents the mean of 4 biological samples for each group, with 10 synapses quantified per group. * $p < 0.05$, *** $p < 0.001$. C) Area (μm^2) of synapses from z-stack confocal images of uninjured control and SNT TA muscles from young and aged mice. Data represents the mean of 4 biological samples for each group, with 10 synapses measured per group. Data were analyzed with a 2-way ANOVA with Tukey post-hoc test. ** $p < 0.01$, *** $p < 0.001$. D) AChR voxel volume (μm^3) per NMJ was quantified in fiber bundles from uninjured and SNT-injured young and aged mice ($n=17-26$ NMJs per group). Comparisons were made with a two-sided, unpaired t-test. ** $p < 0.01$, n.s. $p > 0.05$. E) The number of AChR fragments per NMJ were quantified in fiber bundles from uninjured and SNT-injured young and aged mice ($n=17-26$ NMJs per group). Comparisons were made with a Mann-Whitney U Test. * $p < 0.05$, ** $p < 0.01$, n.s. $p > 0.05$. F) MuSC Voxel volumes from isolated myofibers of uninjured and control SNT TA muscles from young and aged mice. $n = 4$ mice, with at least 16 MuSCs near the NMJ quantified from each biological replicate. Data were analyzed with a 2-way ANOVA with Tukey post-hoc test. *** $p < 0.001$, **** $p < 0.0001$.