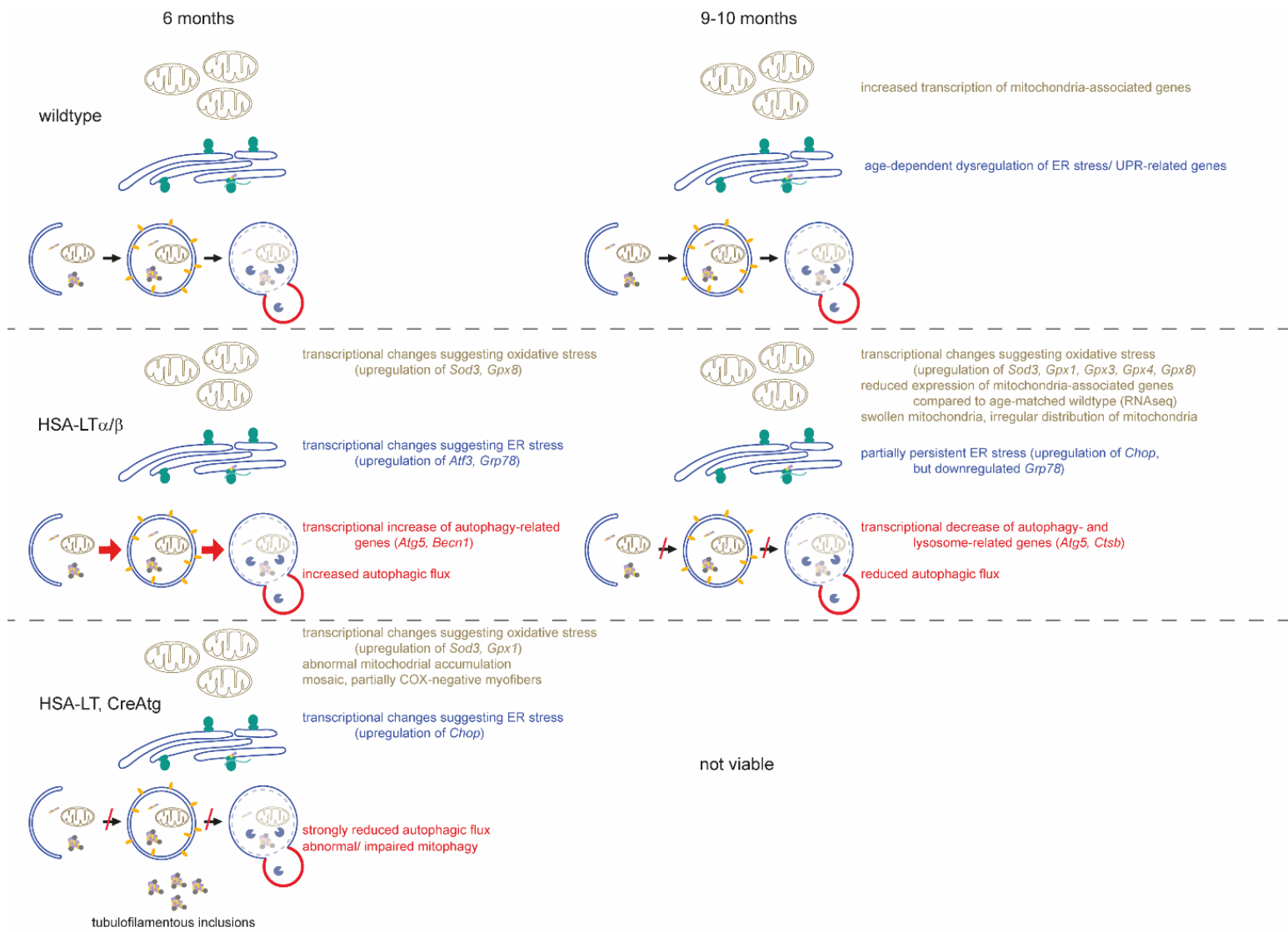
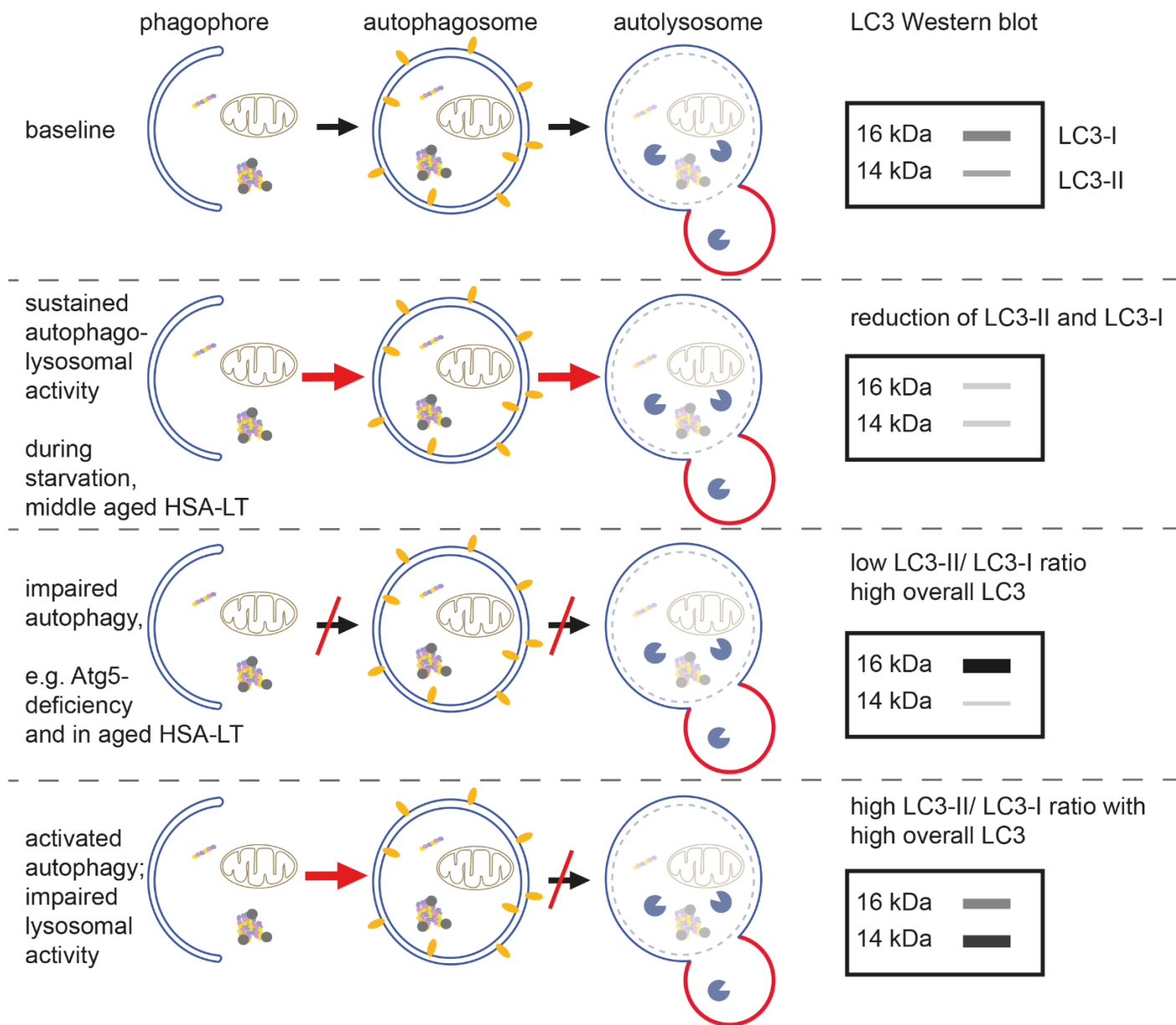


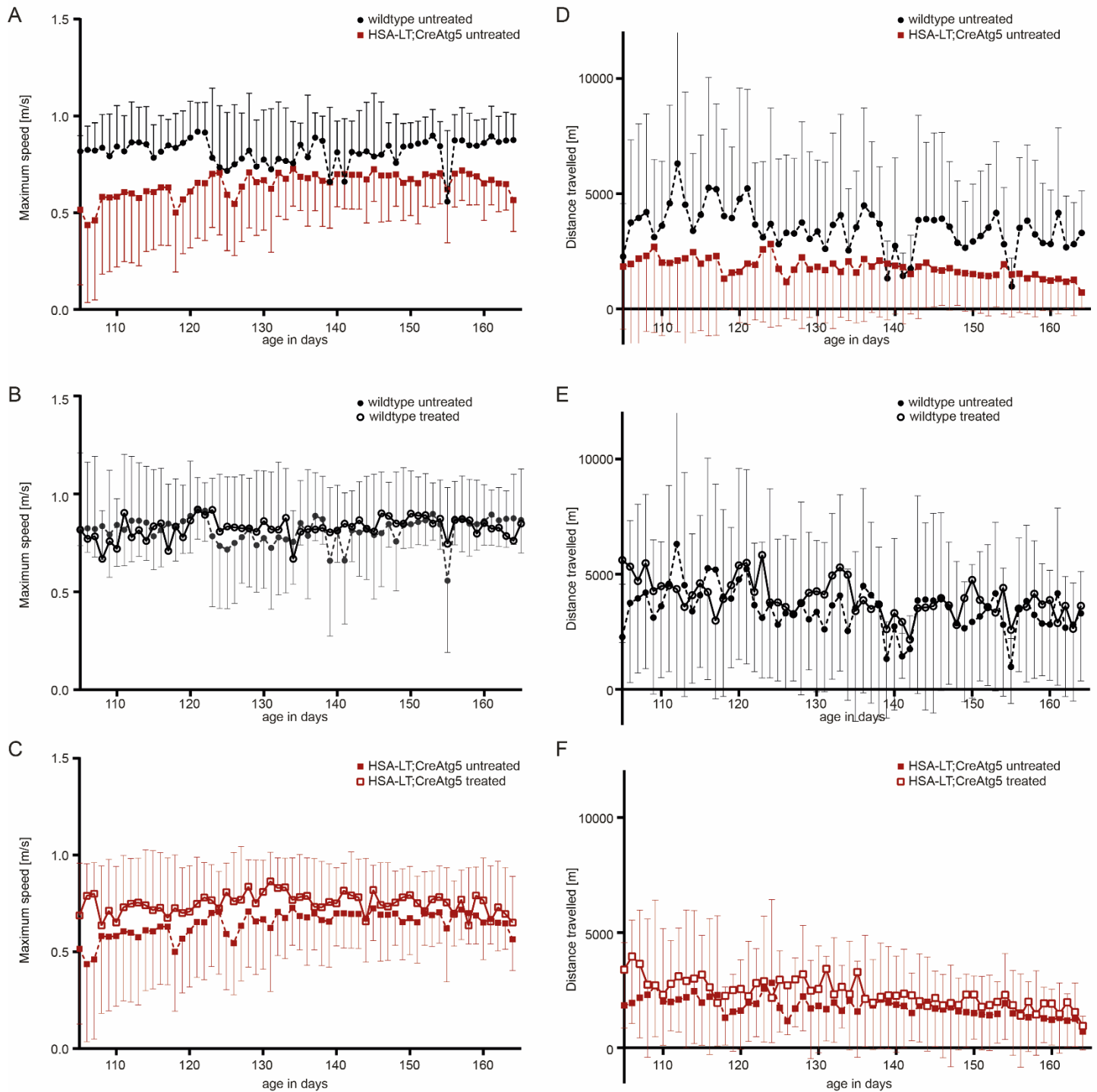
Supplementary figure 1. Normalized read counts in immune-mediated necrotizing myopathy (IMNM), anti-synthetase syndrome (AS) and dermatomyositis (DM) compared to control muscle derived from a previously published RNAseq data set.



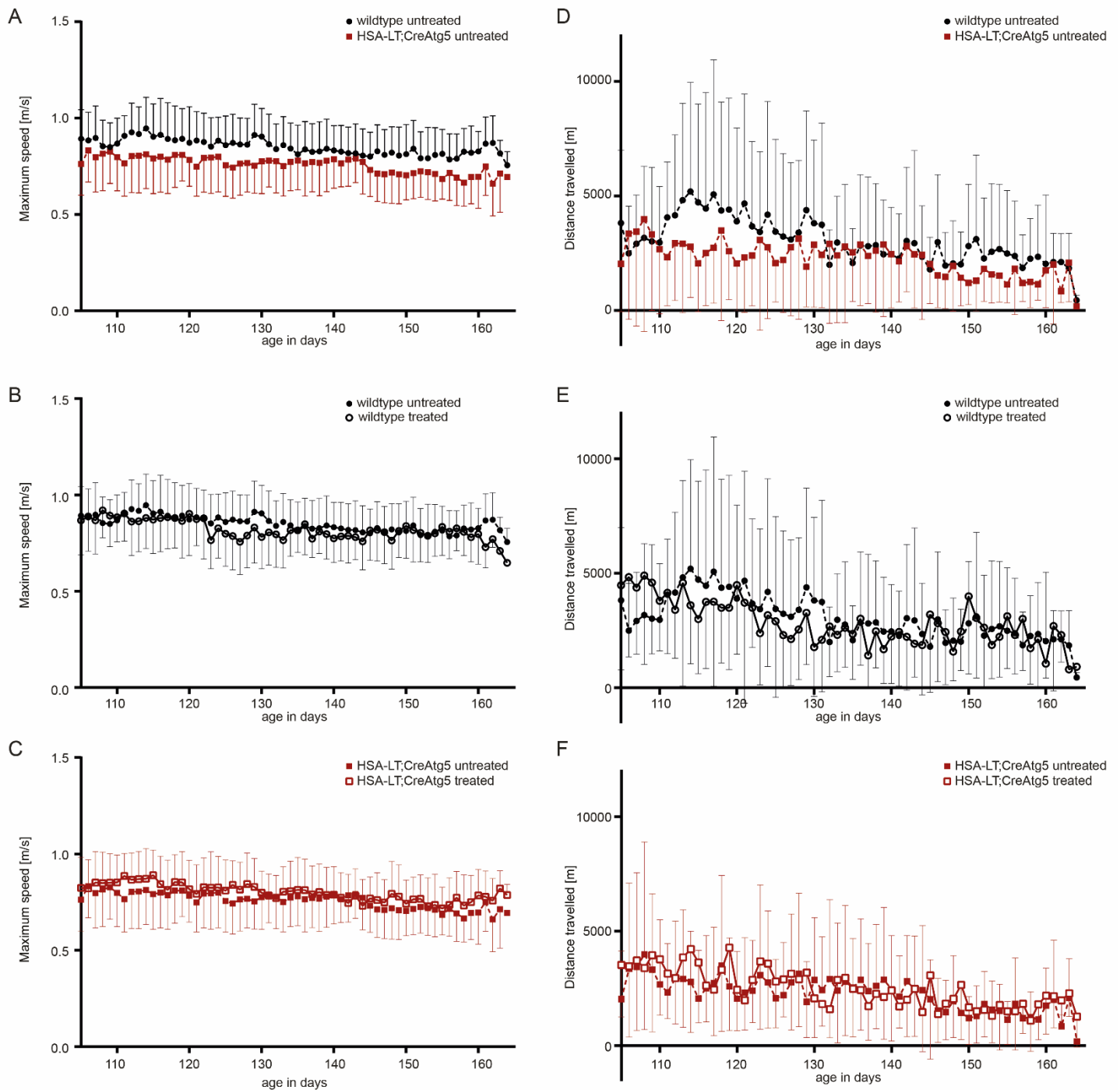
Supplementary figure 2. Mitochondrial, ER stress and autophagolysosomal alterations observed in HSA-LT and HSA-LT, CreAtg as well as 9-10 months old wildtype muscle compared to 6 months wildtype muscle.



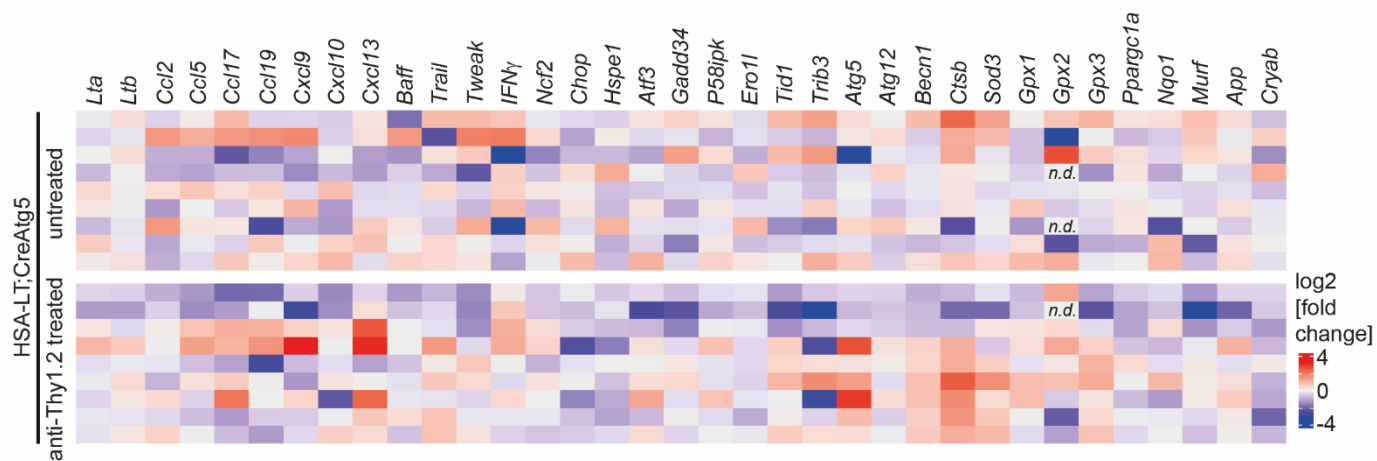
Supplementary figure 3. Schematic illustration of autophagy and autophagic flux from phagophore over autophagosome to autolysosome and the corresponding LC3 Western blot pattern. Black arrows indicate normal flux, red enlarged arrows show increased activity/ flux and arrows that are crossed off indicate impairment/ blockage.



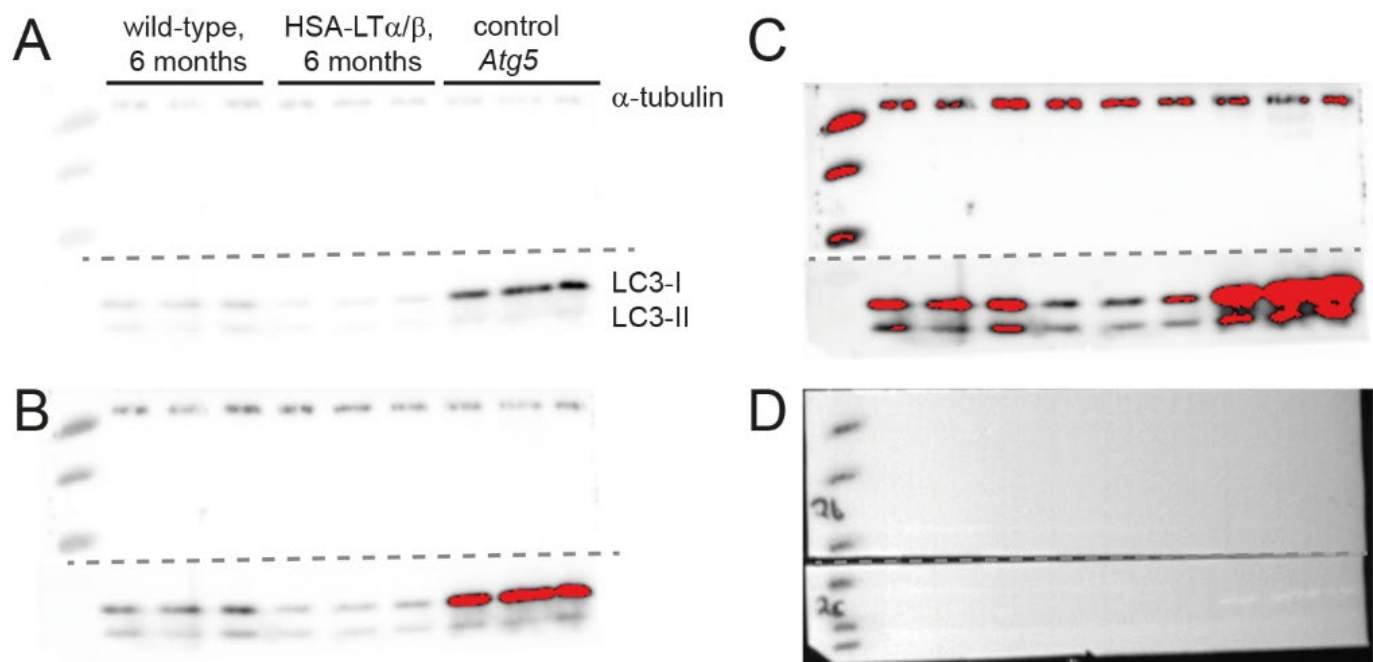
Supplemental figure 4. Motor performance following prednisolone treatment. Motor performance on the running wheel - maximum speed (A,B,C) and distance travelled (D,E,F) were not significantly altered in treated versus untreated mice. P-values were determined using one-way ANOVA.



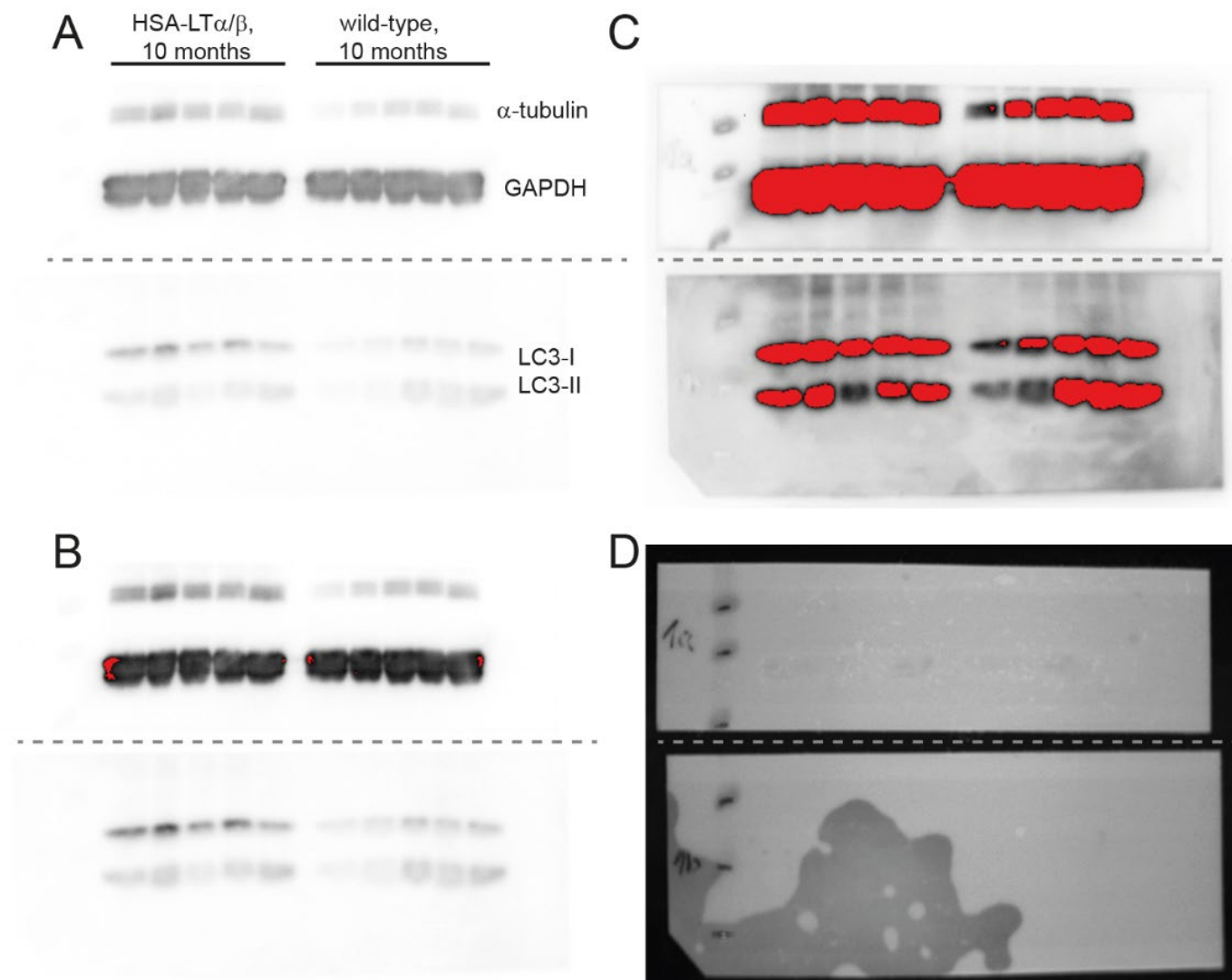
Supplemental figure 5. Motor performance following anti-Thy1.2 treatment. Motor performance on the running wheel - maximum speed (A,B,C) and distance travelled (D,E,F) were not significantly altered in treated versus untreated mice. P-values were determined using one-way ANOVA.



Supplemental figure 6. Heatmap showing stable expression of various genes following anti-Thy1.2 treatment relative to untreated mice - in HSA-LT;CreAtg5 determined by qPCR.



Supplementary figure 7. Full size membrane of the first Western blot shown in Figure 4. Dotted line shows where the membrane was cut. The upper part was incubated with anti-tubulin antibody. The lower membrane was incubated with anti-LC3 antibody. Different exposure times are shown, increasing from A to C. Red color indicates saturation. C and D are shown because the protein ladder is visible on these images (band sizes from top to bottom are: 50, 37, 25 kDa for the upper and 20, 15 and 10 kDa for the lower part).



Supplementary figure 8. Full size membrane of the second Western blot shown in Figure 4. Dotted line shows where the membrane was cut. The upper part was incubated with anti-GAPDH and anti-tubulin antibodies. The lower membrane was incubated with anti-LC3 antibody. Different exposure times are shown, increasing from A to C. Red color indicates saturation. C and D are shown because the protein ladder is visible on these images (band sizes from top to bottom are: 50, 37, 25 kDa for the upper and 20, 15 and 10 kDa for the lower part).