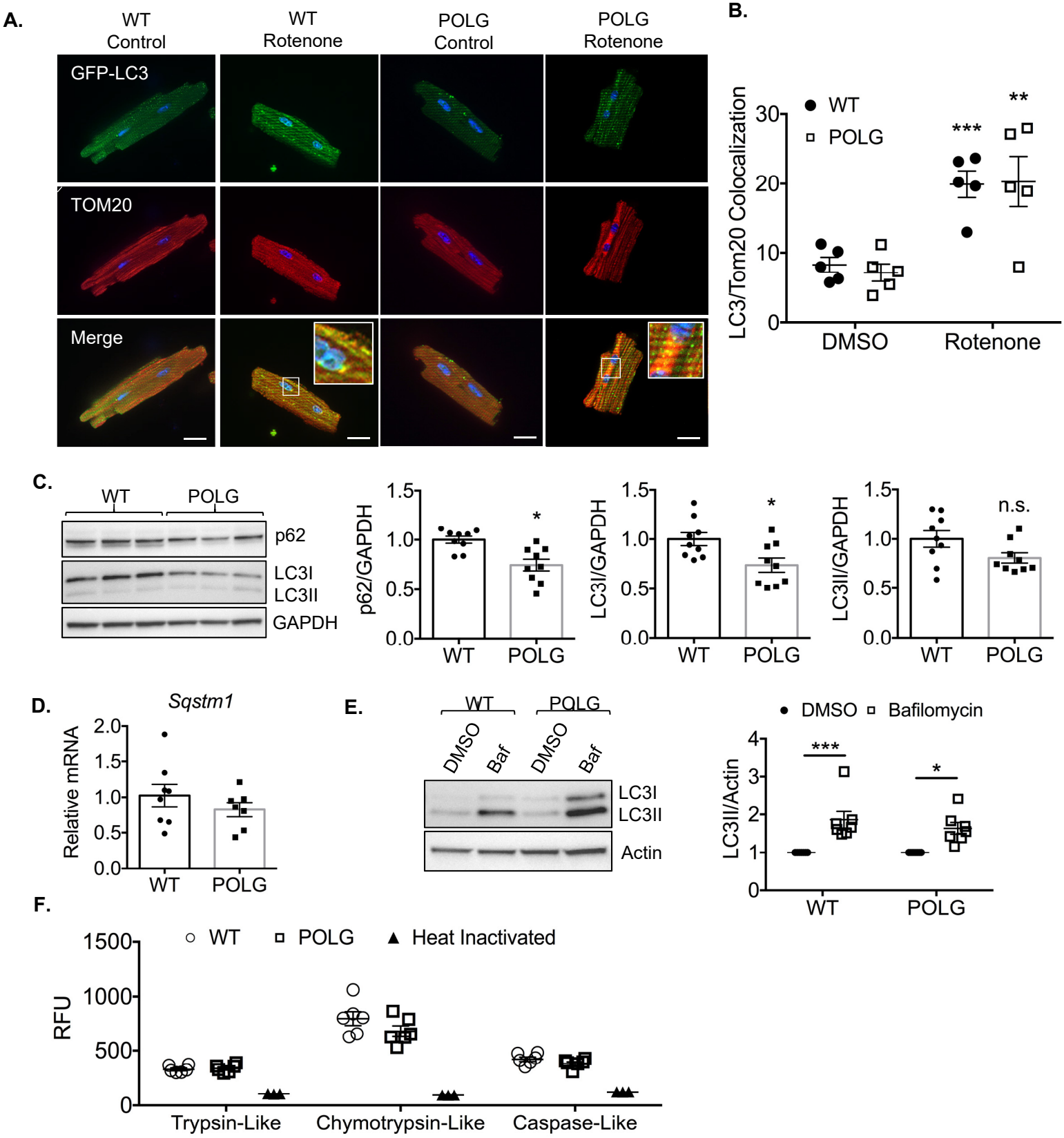
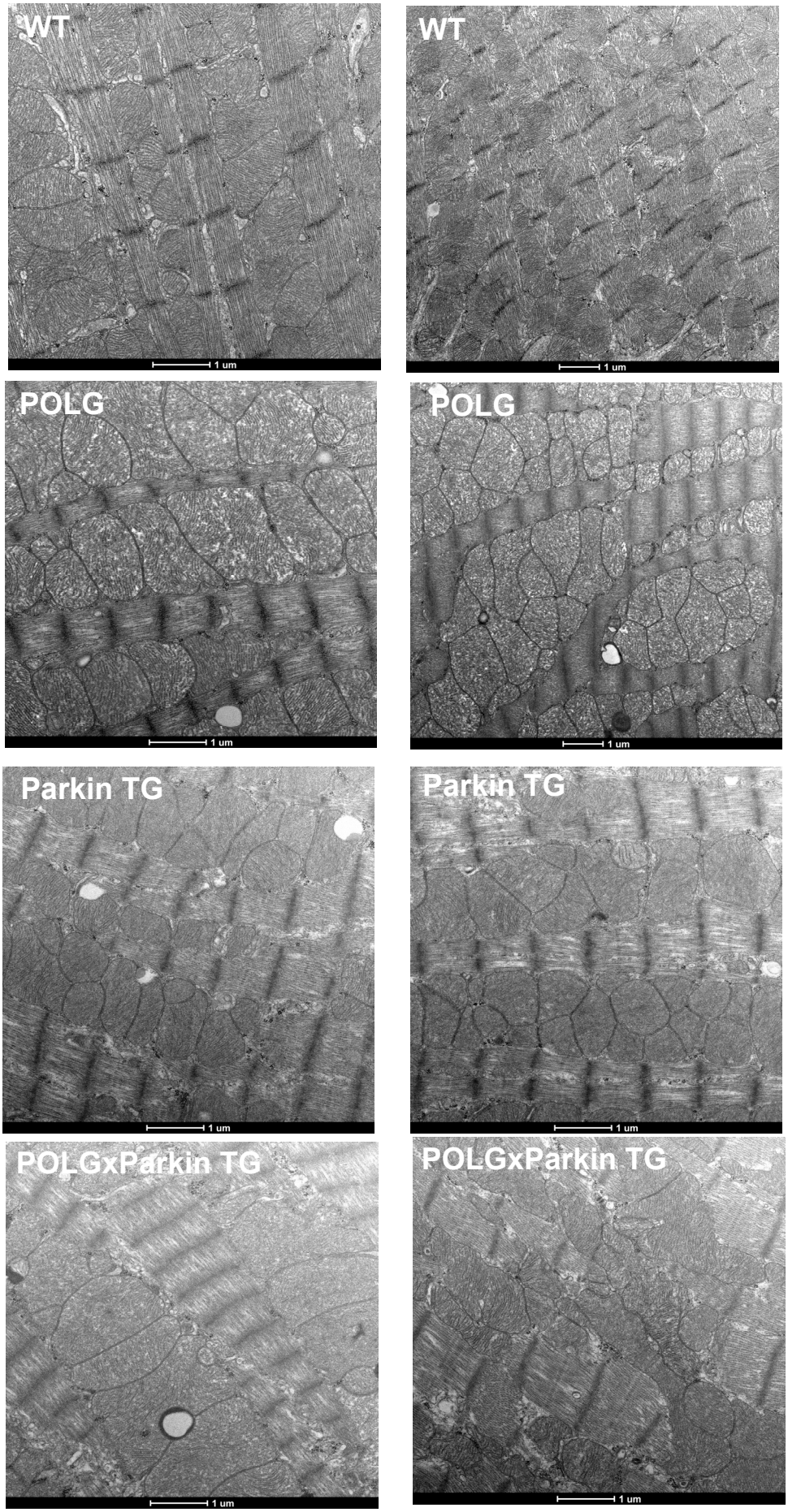


Supplemental Figure 1. Mitophagy and autophagic flux are intact in POLG myocytes. **A**. Representative images of myocytes treated with 40 μM rotenone (ROT) for 60 min. Scale bar = 20 μm. **B**. Quantitation of GFP-LC3 and Tom20 colocalizing puncta per myocyte (25-35 cells per condition was scored in each experiment, n=5). **C.** Representative Western blot and quantitation of p62 and LC3 in whole heart lysates (n=9). **D.** Real-time qPCR analysis of *p62* (*Sqstm1*) gene expression (n=7-8). **E.** Representative Western blot and quantitation of LC3II in isolated adult mouse cardiomyocytes treated with 50nM bafilomycin (Baf) or vehicle control (DMSO) for 18 hours to assess autophagic flux (n=7). **F.** Proteasomal activity in WT and POLG hearts at 6 months (n=6). Data are mean ± SEM (*p<0.05; **p<0.01; ***p<0.001; n.s., not significant). Statistical significance was calculated using Student's t-test or ANOVA followed by Dunnett's test for multiple comparison.



Supplemental Figure 2. Representative electron micrographs of aged hearts.