

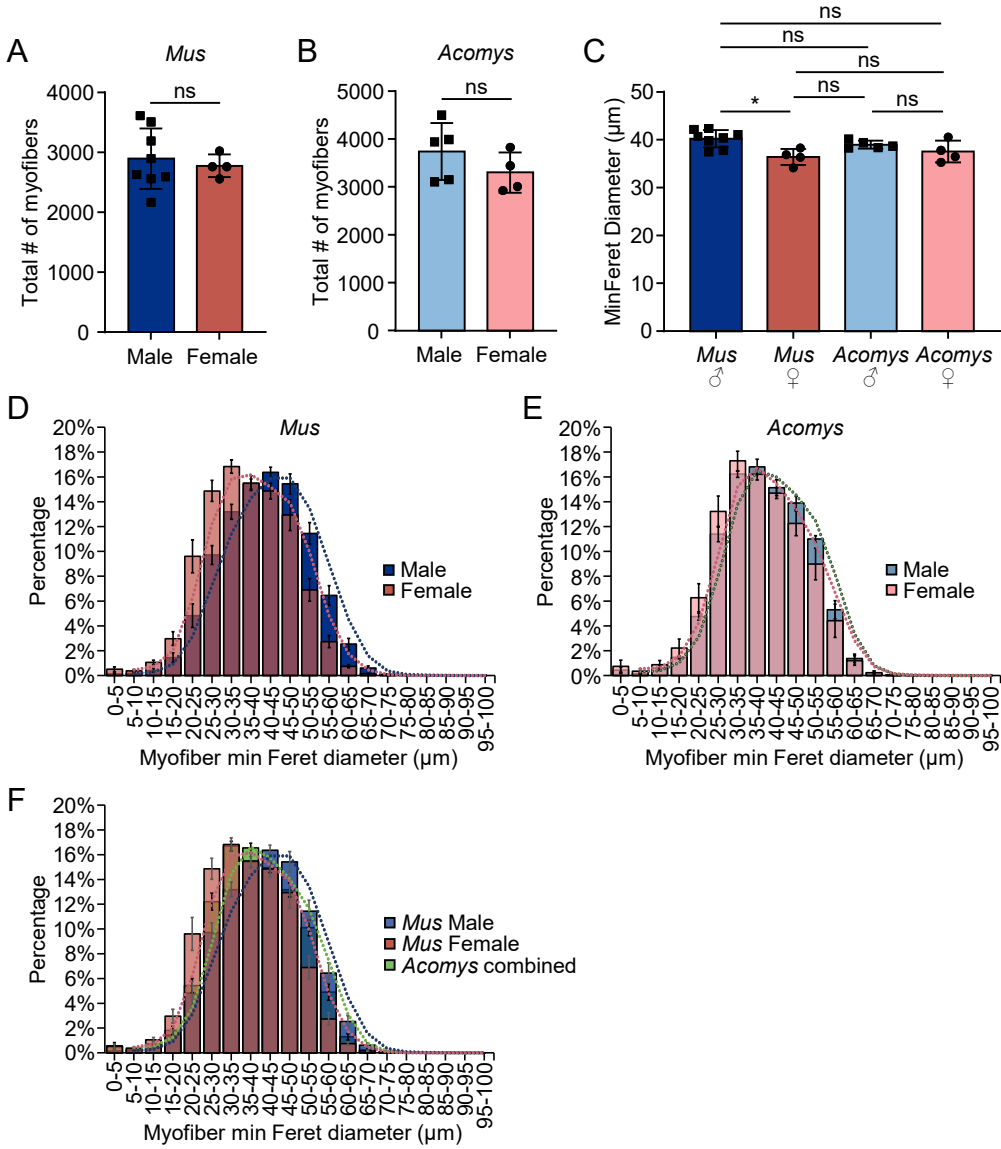
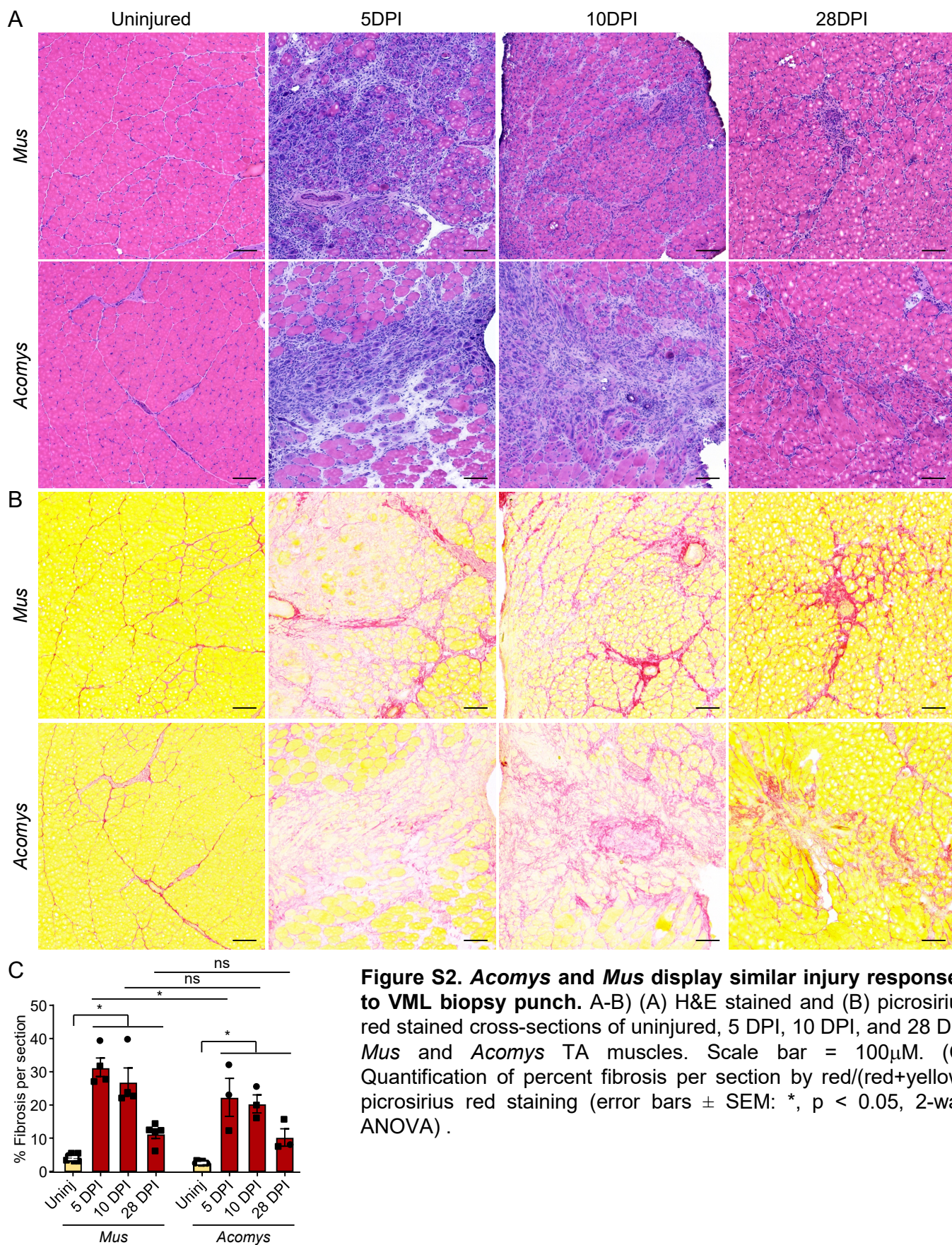


Figure S1. Sex differences in TA muscle between species. A-B) Total number of myofibers per TA cross-section in male and female *Mus* (A) and *Acomys* (B) (error bars $\pm$ SD: *, $p < 0.05$, Student's t-test). C) Average MinFerret diameter of myofibers per TA cross-section in male and female *Mus* and *Acomys* (error bars $\pm$ SD: *, $p < 0.05$, One-way ANOVA with Tukey's multiple comparison test). D-F) Myofiber size distribution by MinFerret diameter in male and female *Mus* (D) and *Acomys* (E) or both (F) (error bars $\pm$ SEM).



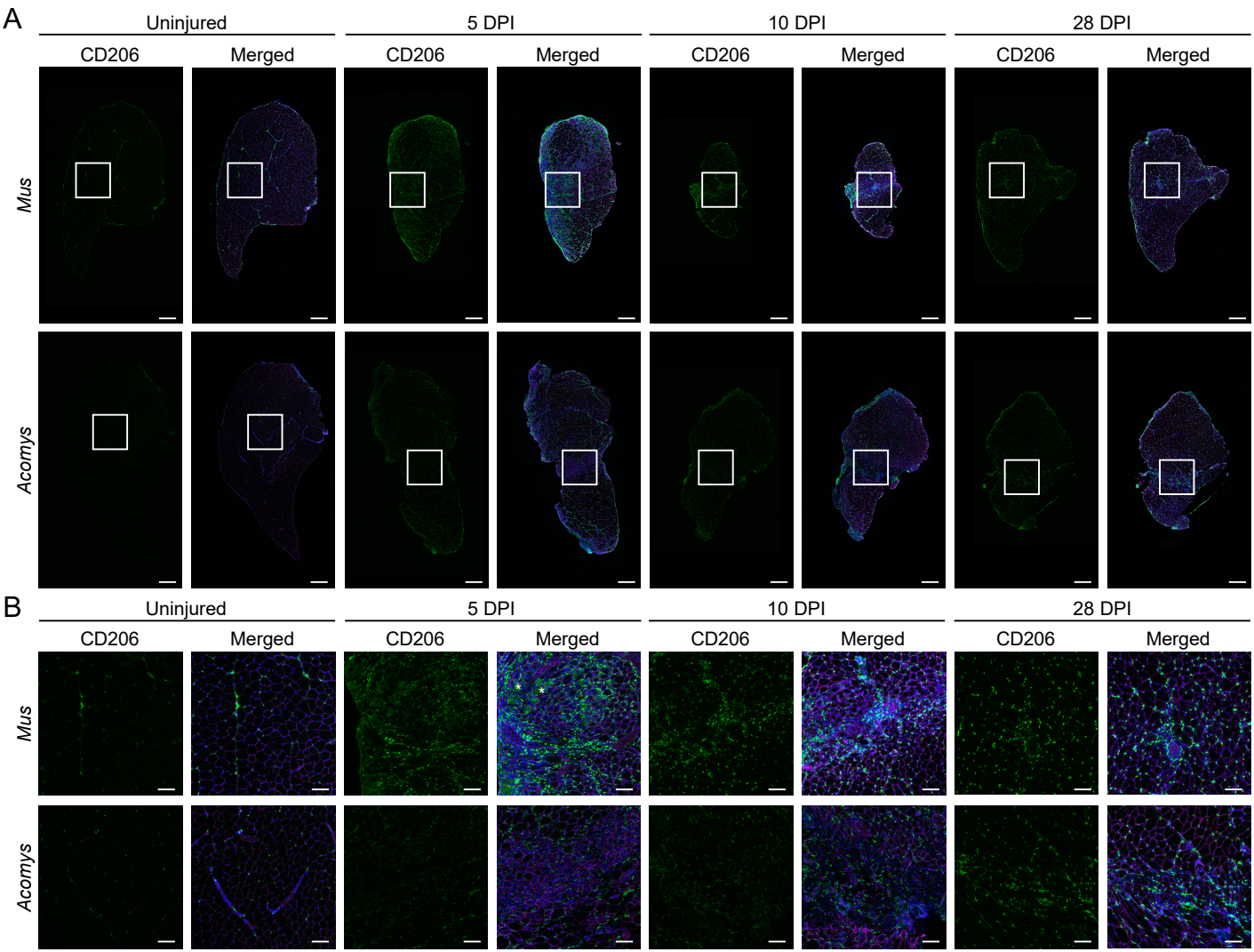


Figure S3. Macrophages across time following biopsy punch injury. A-B) Immunofluorescence of CD206, Laminin, and DAPI 5, 10, and 28 DPI in *Mus* and *Acomys*. *indicates necrotic fibers which autofluoresce. (A) Scale bar = 400μM (B) 100μM.

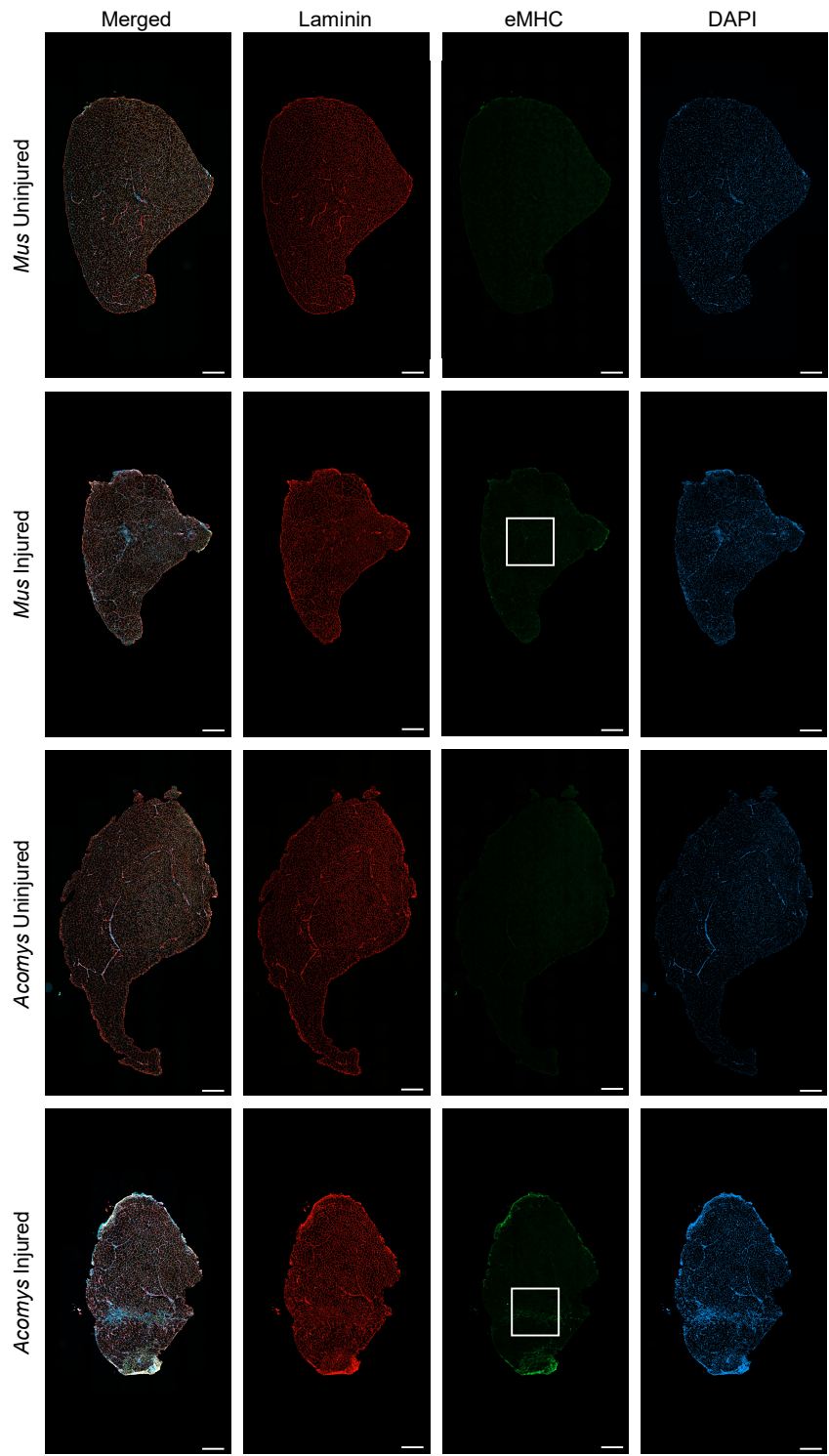


Figure S4. Full size images of biopsy punch. Immunofluorescence of eMHC, Laminin, and DAPI 28 DPI in *Mus* and *Acomys*. Scale bar = 400 μ M.

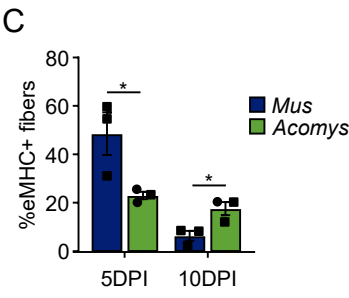
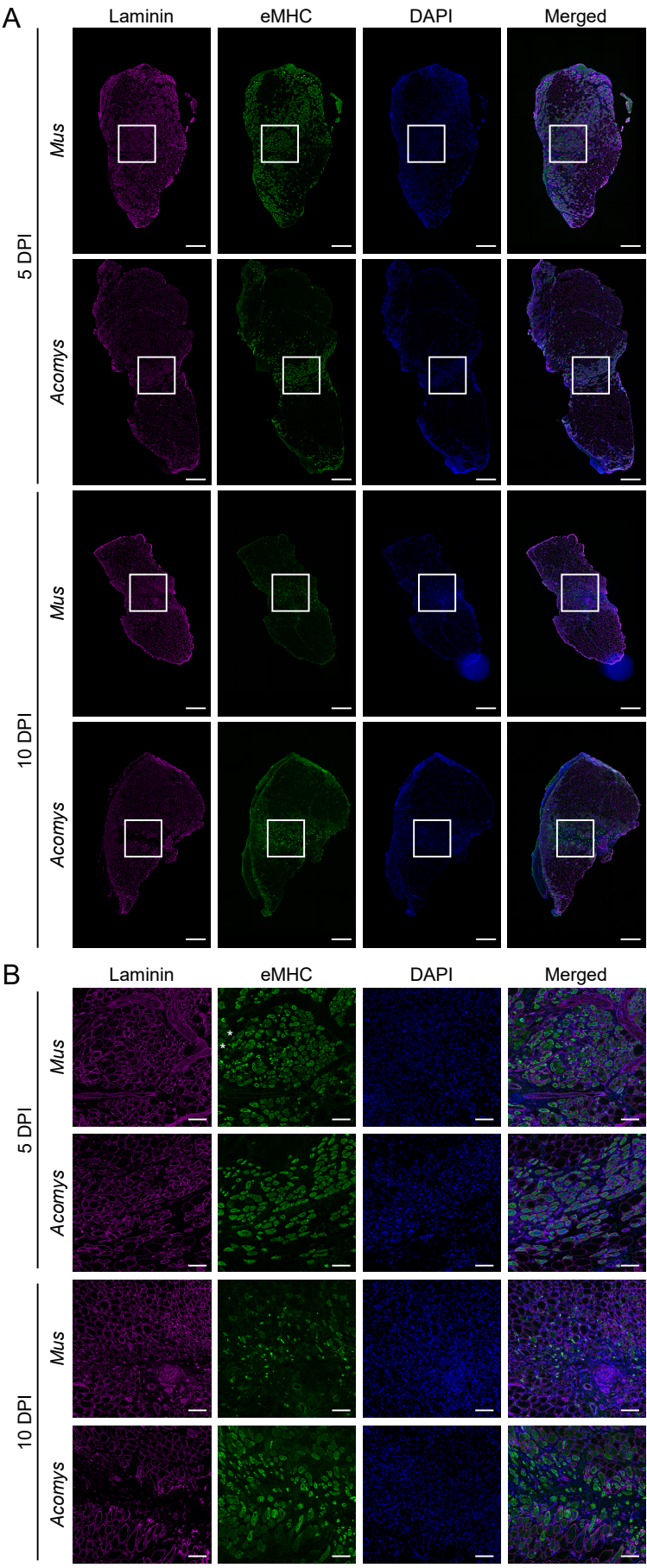


Figure S5. eMHC at early timepoints. A- B) Immunofluorescence of eMHC, Laminin, and DAPI 5 and 10 DPI in *Mus* and *Acomys*. *indicates necrotic fibers which autofluoresce. (A) Scale bar = 400μM (B) 100μM. C) Quantification of percent eMHC+ myofibers per cross-section 5 and 10 DPI in *Mus* and *Acomys* (error bars ± SEM: *, p < 0.05, t-test).

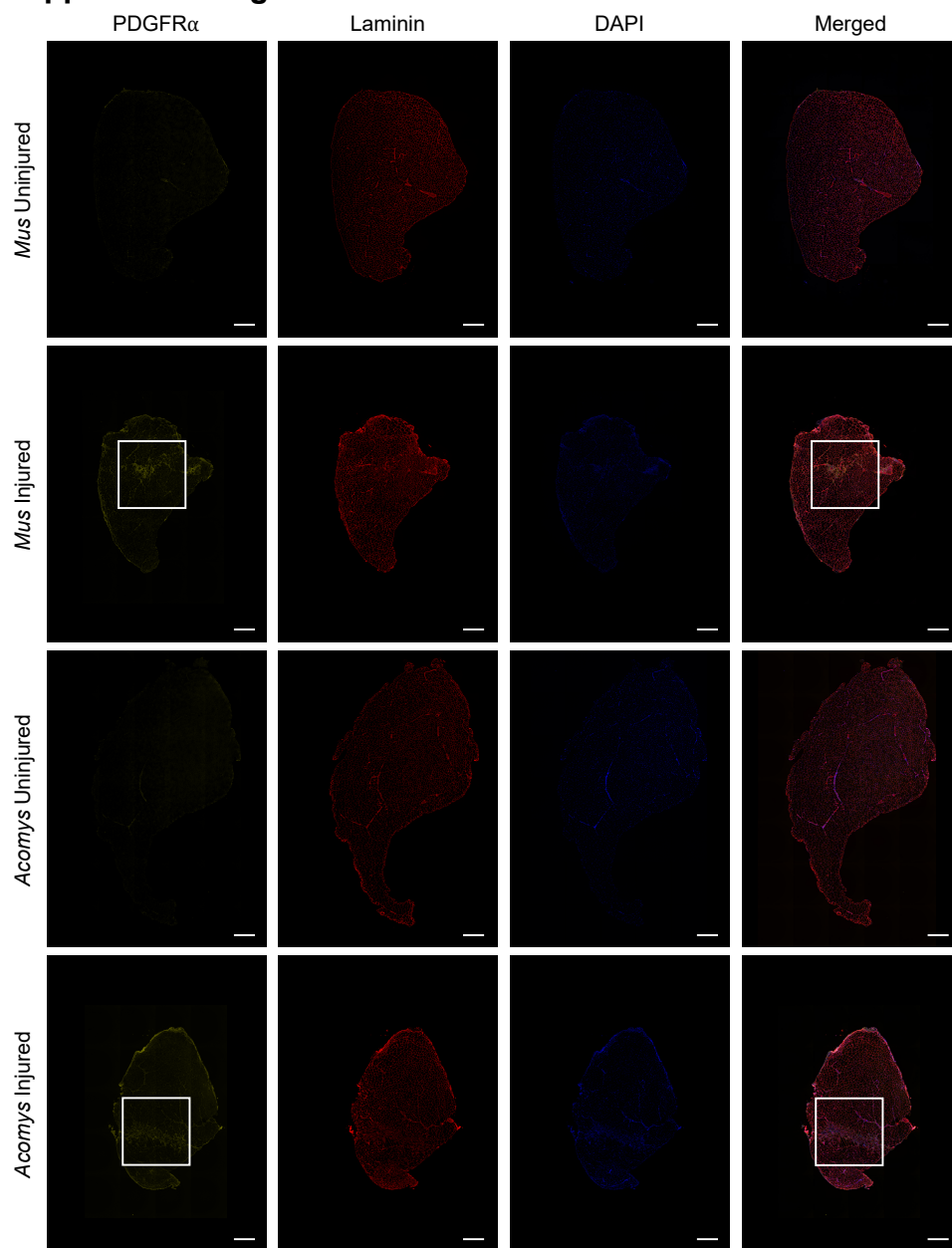


Figure S6. Full size images of biopsy punch. Immunofluorescence of PDGFR α , Laminin, and DAPI 28 DPI in *Mus* and *Acomys*. Scale bar = 400 μ M.

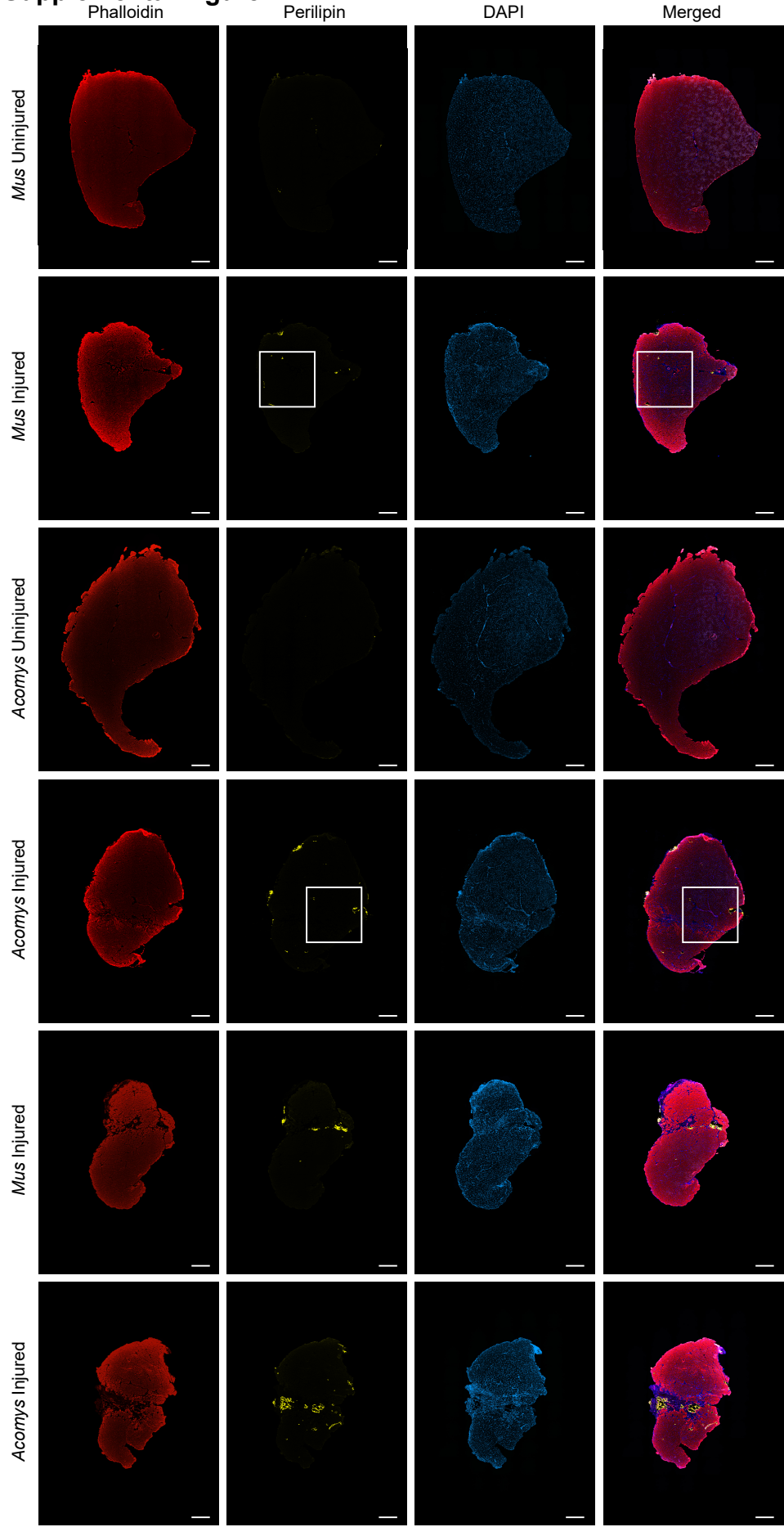


Figure S7. Full size images of biopsy punch. Immunofluorescence of phalloidin, perilipin, and DAPI 28 DPI in *Mus* and *Acomys*. Scale bar = 400 μ M.

Uninjured

90DPI

Uninjured

90DPI

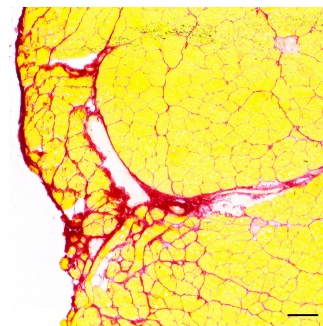
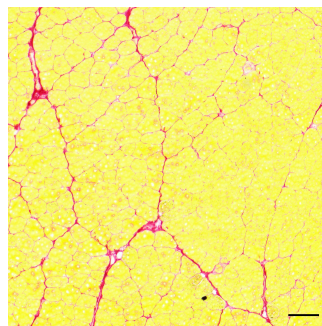
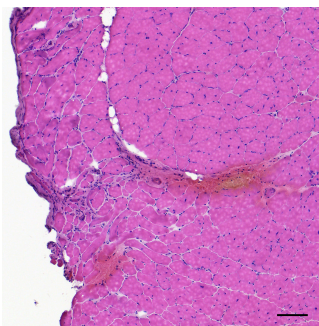
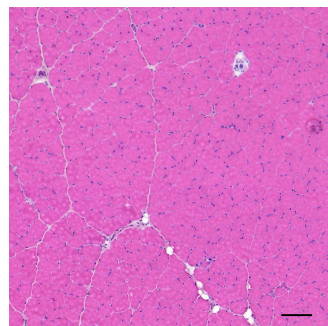
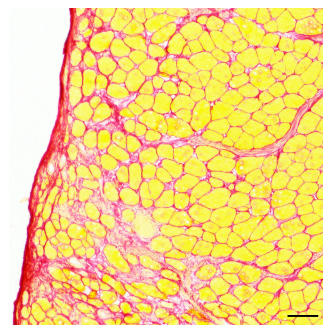
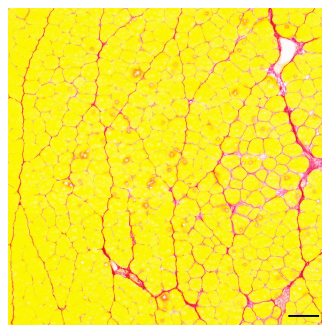
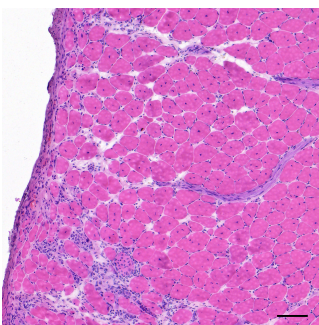
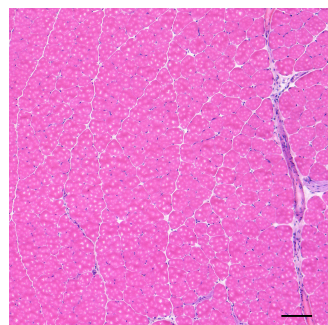
Mus*Acomys*

Figure S8. *Acomys* and *Mus* display similar injury responses to VML trough injury. H&E and picrosirius red stained cross-sections of *Mus* and *Acomys* TA muscles 90 days post VML trough injury. Scale bar = 100 μ M.

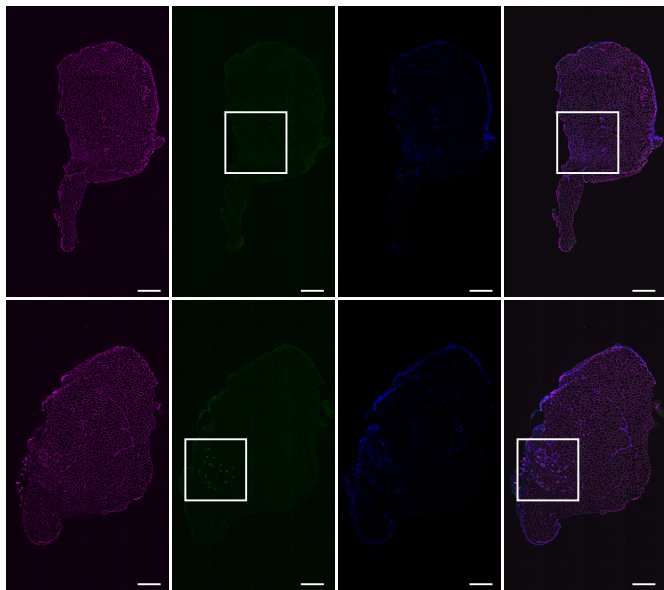


Figure S9. Full size images of trough VML. Immunofluorescence of eMHC, Laminin, and DAPI 90 DPI in *Mus* and *Acomys*. Scale bar = 400 μ M.

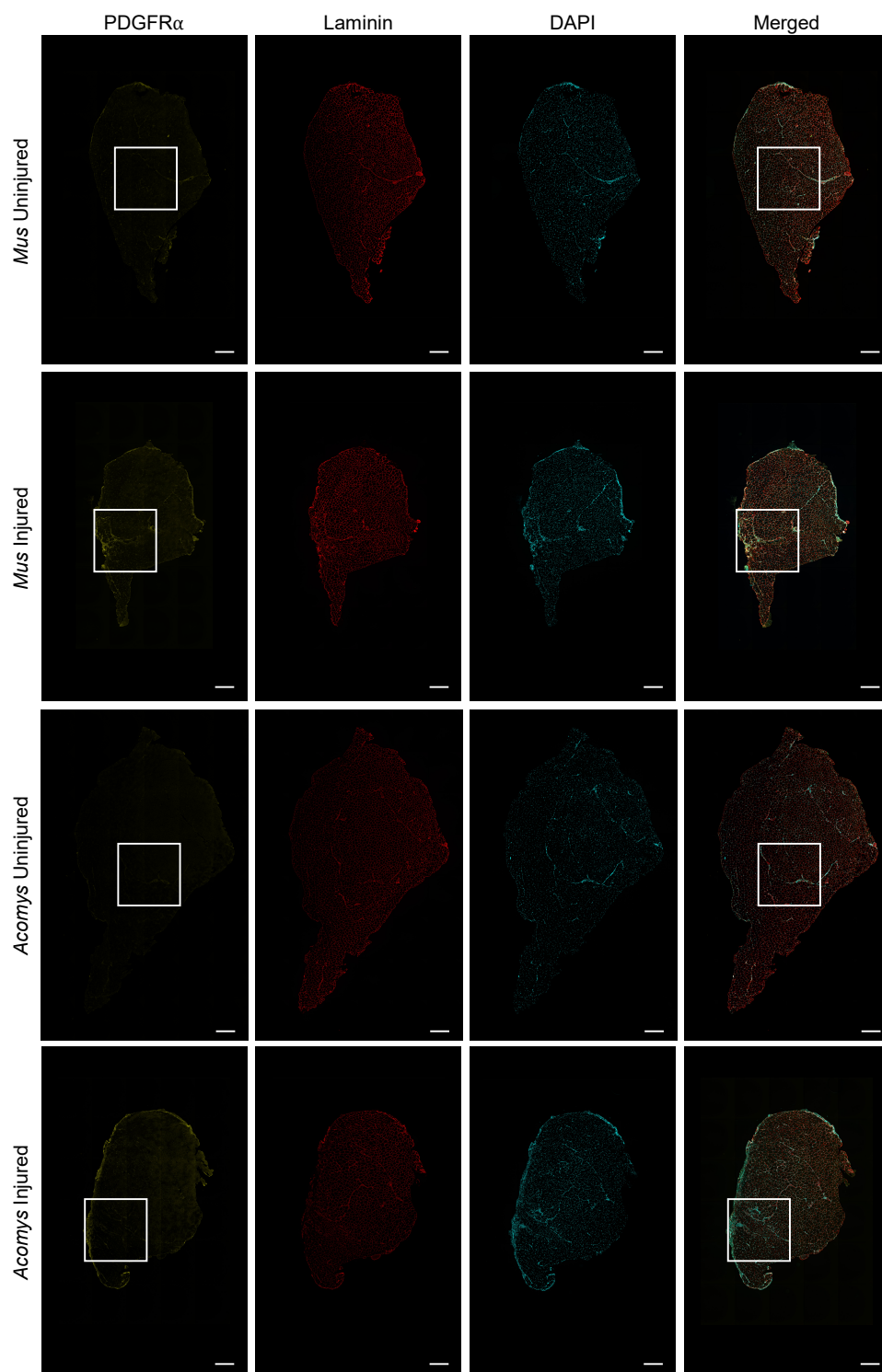


Figure S10. Full size images of trough VML. Immunofluorescence of PDGFR α , Laminin, and DAPI 90 DPI in *Mus* and *Acomys*. Scale bar = 400 μ M.

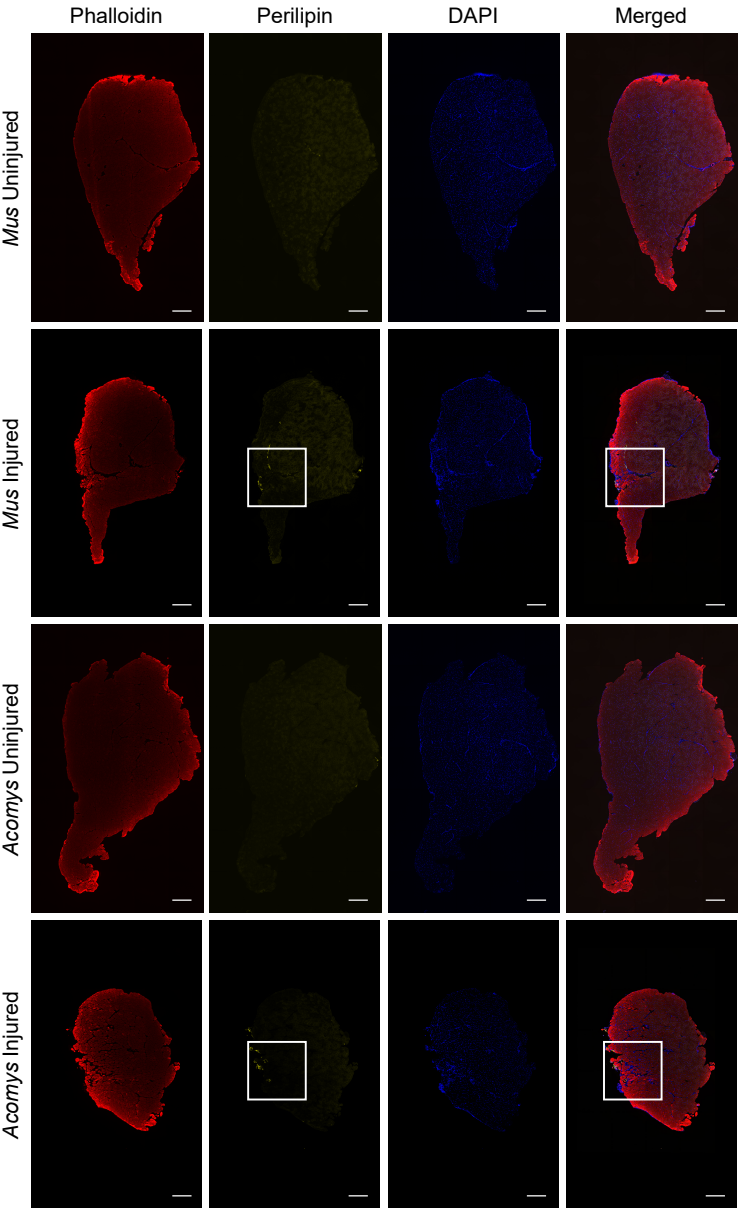


Figure S11. Full size images of trough VML. Immunofluorescence phalloidin, perilipin, and DAPI 90 DPI in *Mus* and *Acomys*. Scale bar = 400μM.

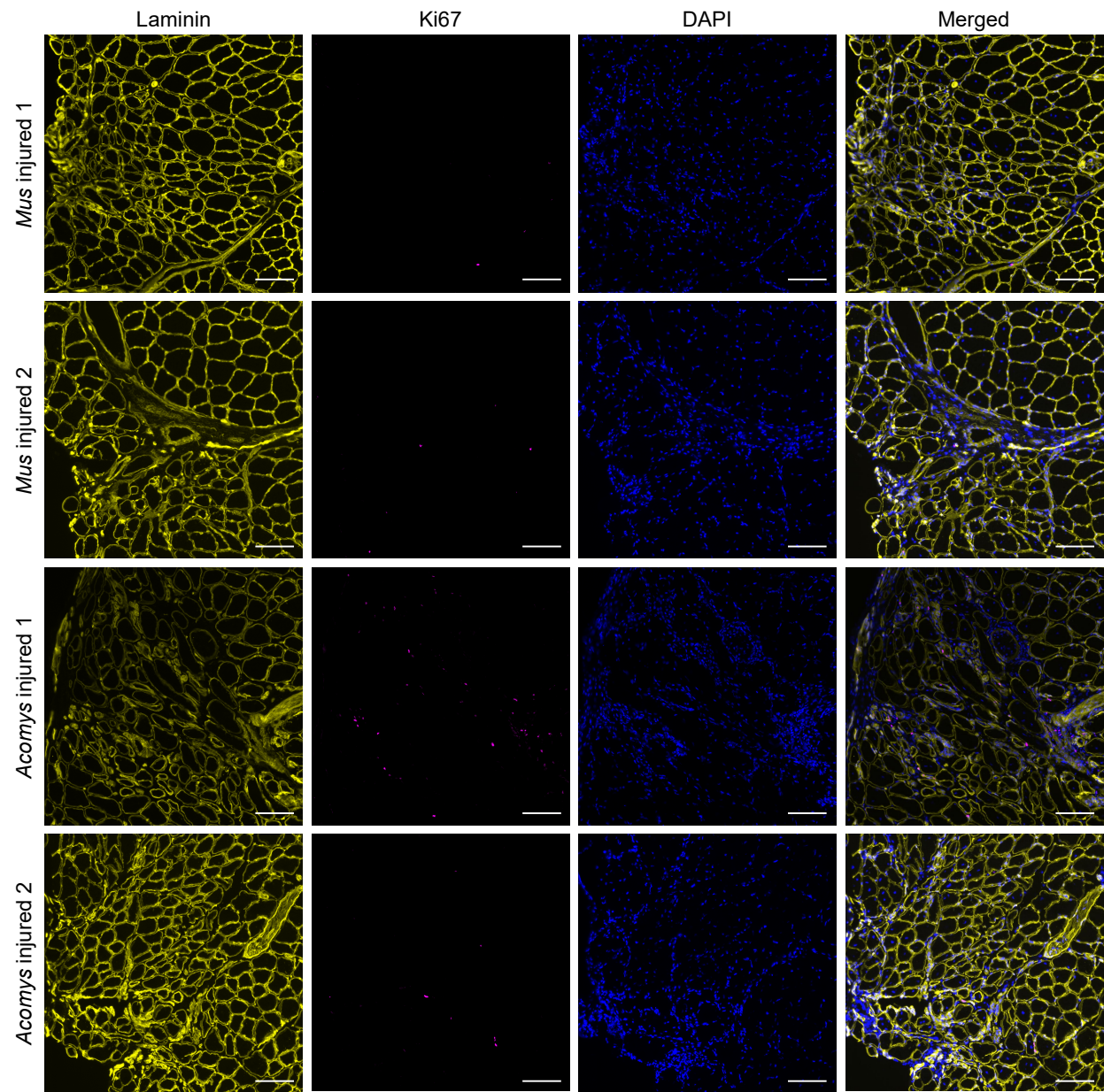


Figure S12. Proliferating cells in 90DPI trough injury. Immunofluorescence laminin, Ki67, and DAPI 90 DPI in *Mus* and *Acomys* (2 animals each). Scale bar = 100μM.