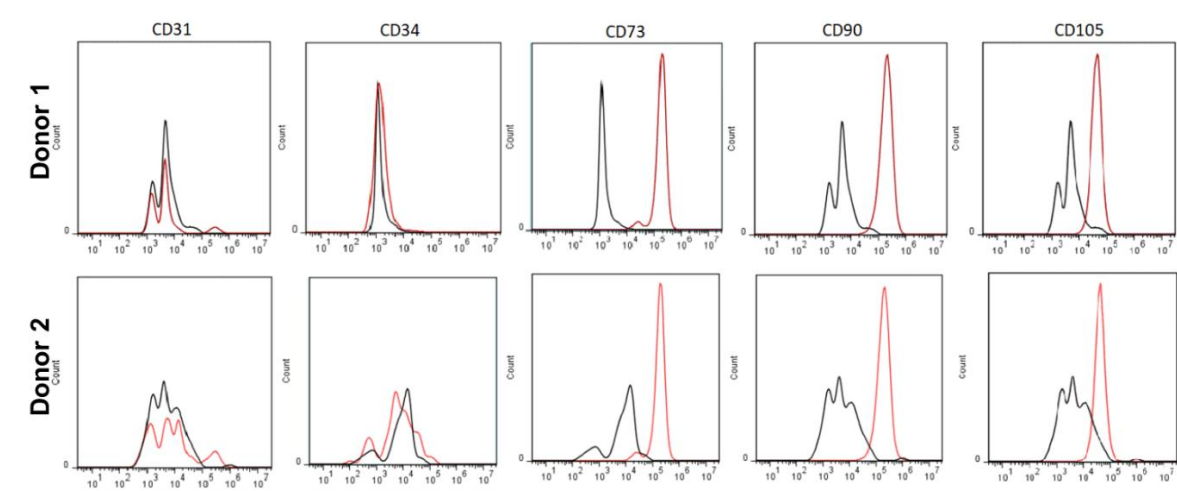
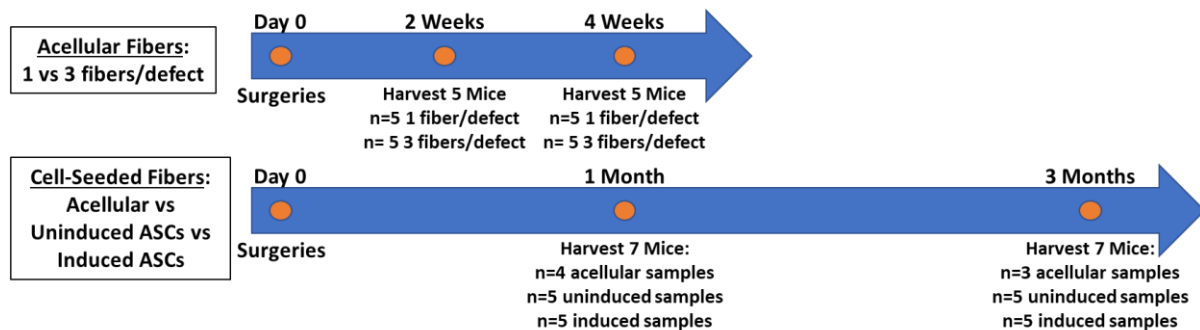


	CD31	CD34	CD73	CD90	CD105
<b>Donor 1</b>	0.5%	2.8%	100.0%	100.0%	100.0%
<b>Donor 2</b>	0.4%	0.2%	99.8%	100.0%	99.9%

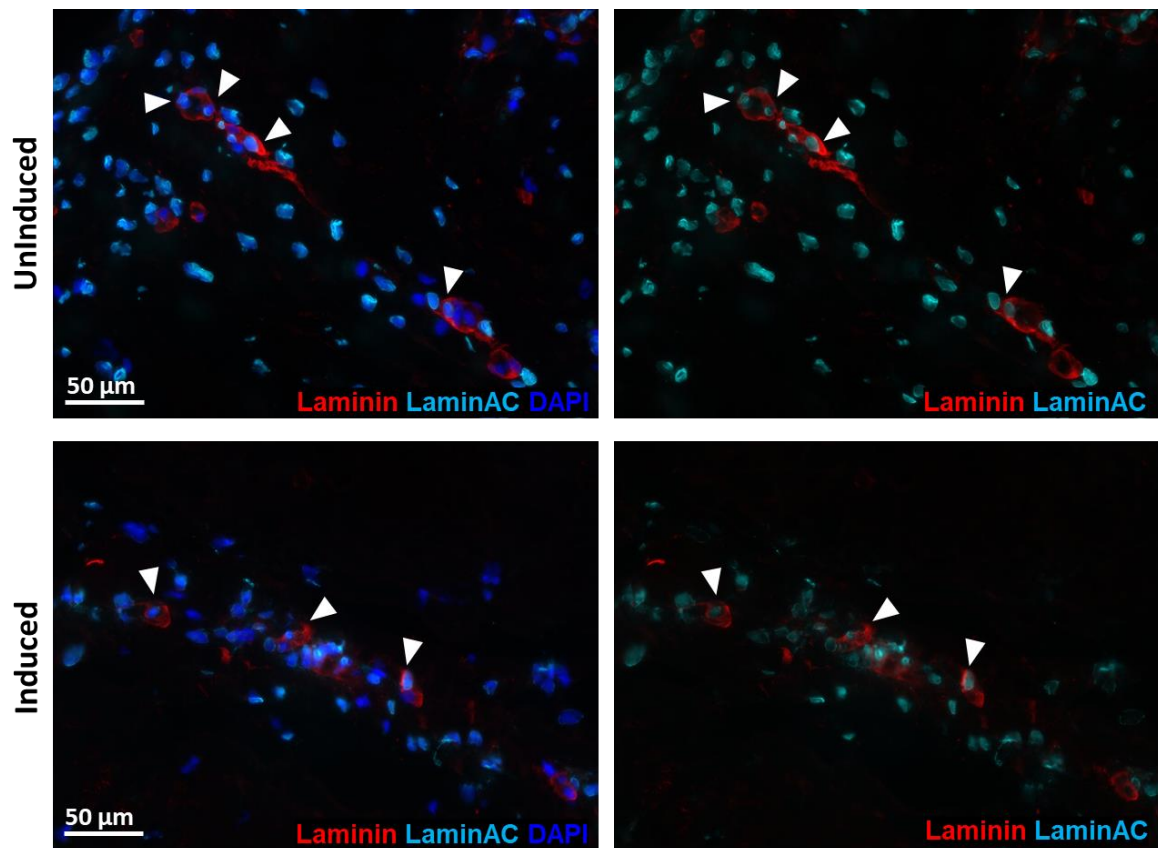
**Supplemental Table 1. ASC characterization via flow cytometry.** ASCs at passage 3 from both donors used in the study were incubated with antibodies to CD31, CD34, CD73, CD90, and CD105 and assessed through flow cytometry.



**Supplemental Figure 1. ASC characterization via flow cytometry.** Histograms depicting flow cytometry data for ASCs from two donors.



**Supplemental Figure 2. Timelines for *in vivo* experiments.** Experiment lengths, experimental groups, sample sizes, and harvest dates for the acellular and cell-seeded *in vivo* experiments.



**Supplemental Figure 3. Immunostaining of laminin and human-Lamin AC in the fiber interior.** Sections of the excised defect site were stained with laminin (red), human-specific LaminAC (cyan), and DAPI (blue). Images shown are uninduced and induced samples at 4 weeks.