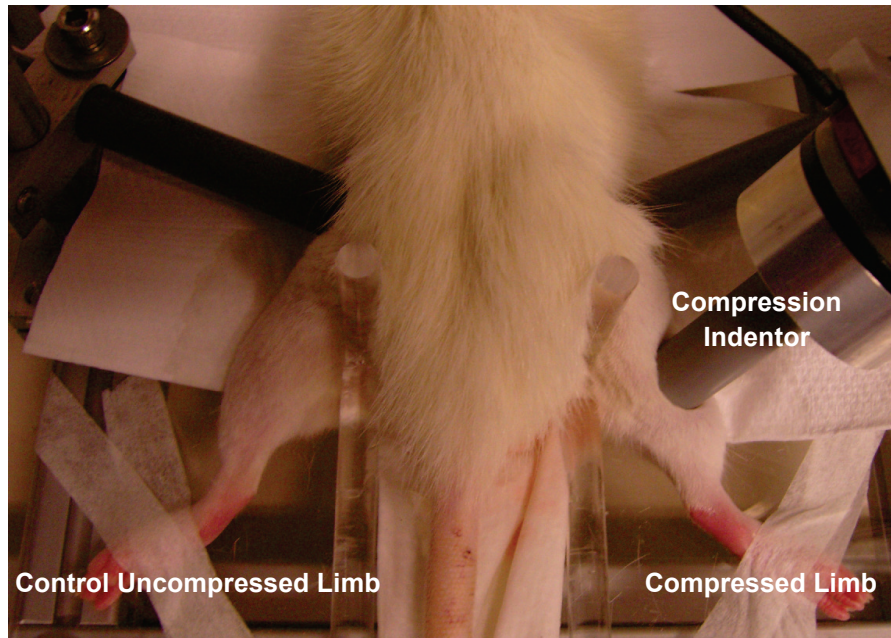


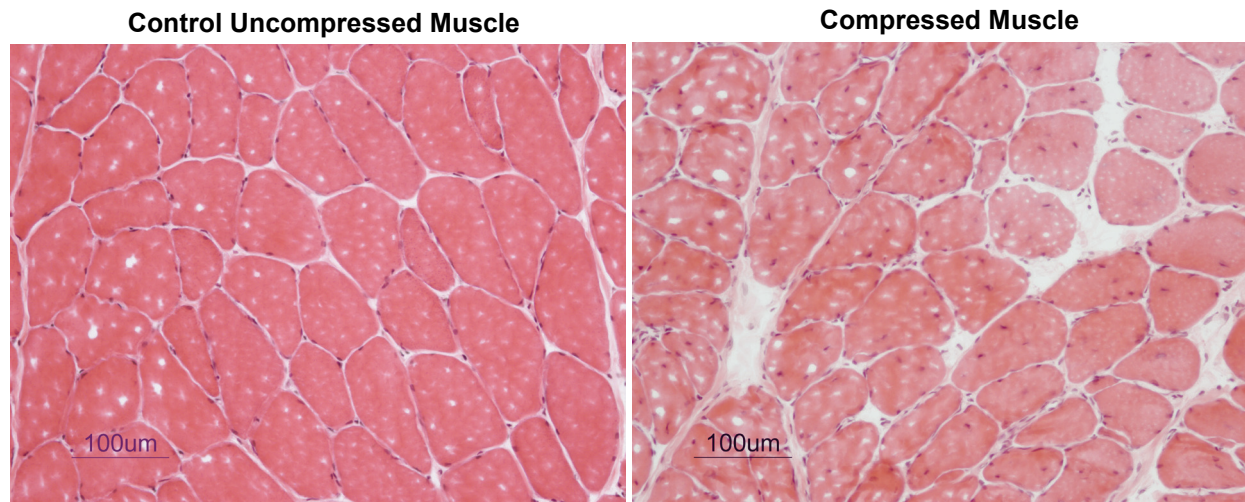
## Supplemental Data

**Figure 1 Setup of Compression Procedure**



Static pressure of 100 mmHg (13.3 kPa equivalent) was applied to an area of 1.5 cm<sup>2</sup> over the tibialis region of the right limb of the rats. The compression force was continuously monitored by a 3-axial force transducer equipped in the compression indenter. The compression duration was six hours on each of two consecutive days. The left uncompressed limb served as intra-animal control.

**Figure 2 Muscle Histology 9-days After Compression Procedure**



To examine the recovery of muscle following prolonged moderate compression, three rats were exposed to the compression procedure without injection of z-VAD-fmk or DMSO. Animals were then housed in individual cages and were sacrificed 9 days after the compression procedure. Muscles were harvested and histological analysis was carried out. Muscle tissues right underneath the compression region were harvested. Muscle sectioning and H&E staining were done. Control muscles were of angular shape and were tightly packed. In the compressed muscle, nuclei aggregation in the interstitial space was apparently decreased. Characteristic of regeneration including centrally located myonuclei was commonly observed. The muscle fibers appeared to be better aligned to each other when compared to the compressed muscle sampled 1 day after the compression procedure in DMSO group.