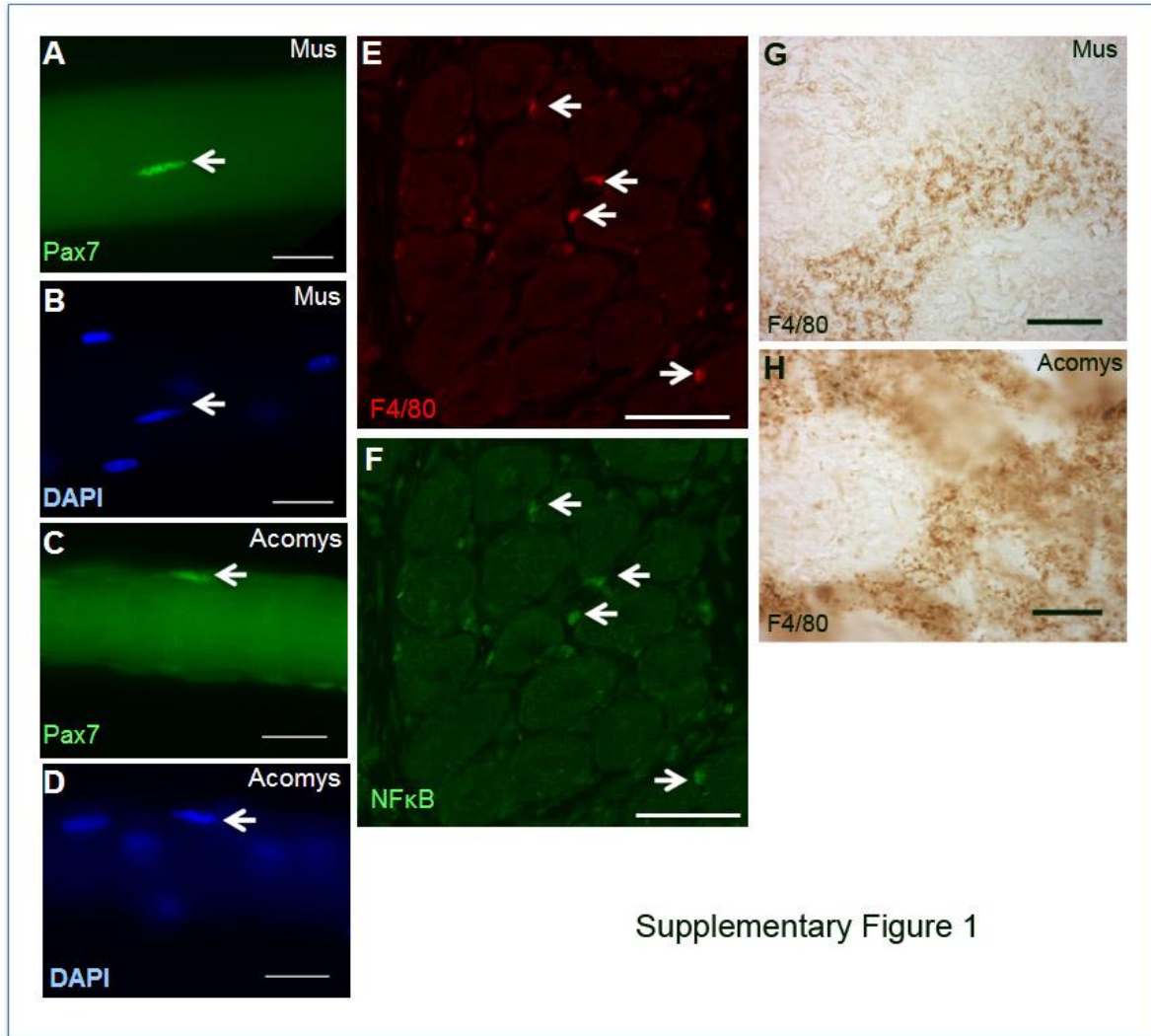


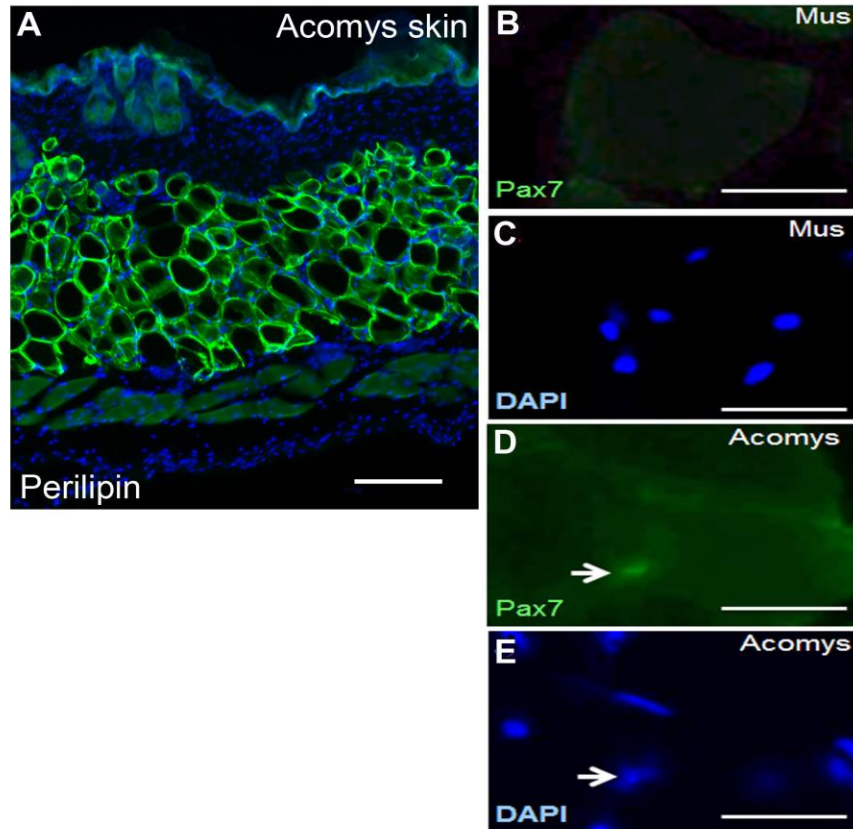
SUPPLEMENTARY INFORMATION

MANUSCRIPT TITLE: **Perfect chronic skeletal muscle regeneration in adult spiny mice, *Acomys cahirinus*.**

AUTHORS: Malcolm Maden, Jason Orr Brant, Andres Rubiano, Aaron Gabriel W. Sandoval, Chelsey Simmons, Robert Mitchell, Henry Collin-Hooper, Jason Jacobson, Saleh Omairi, Ketan Patel



Supplementary Fig. 1. A-D Single fibre immunostaining for expression of satellite cells marker Pax7 on freshly isolated *M. musculus* (A, B) and *A. cahirinus* (C, D) muscle fibres. Arrows show expression of Pax7 co-localizing to a DAPI stained nuclei. Scale bars = 100µm. **E-F**. Co-localisation of macrophage marker F4/80 to the expression of NFκB (indicated by arrows). Scale bars = 200µm. **G-H**, Immunolocalisation of F4/80 antibody in *M. musculus* (**G**) and *A. cahirinus* (**H**) spleen showing +ve reaction around the follicles. Scale bars = 100µm.



Supplementary Fig. 2. **A** Perilipin immunofluorescence on *A. cahirinus* normal skin showing adipocytes in the hypodermis. Scale bar = 200 μ m. **B - C** lack of expression of Pax7 in *M. musculus* muscle after five rounds of CTX damage. **D - E** Expression of Pax7 in *A. cahirinus* muscle after five rounds of CTX damage. Scale bars = 100 μ m.

Acomys RT Primers

Gene	Forward Primer Sequence	Reverse Primer Sequence
<i>Myog</i>	CTTTTCTTCCAGGGGACCTC	ACCAGGAGCCCCACTTCTAT
<i>Myf5</i>	CAGCTCAGCTTTGTGTGCTC	GCTGCCAGTTCTCACCTTCT
<i>MyoD1</i>	TCTGGCCAAGCGACTCTTAT	TCCAGTCCTGCGTGTAACAG
<i>Myh3</i>	ATGTTCGATGGAAGCCAAGAG	GGTTCCCCAACAGGATTCTC
<i>Col1a1</i>	GGCTCCTCGTTTTCTTCTT	CCCTGGAAACAAAGGAGACA
<i>Col3a1</i>	GACCTCGTGCTCCAGTAAGC	CTGGACCAAAGGTGATGCT
<i>Col12a1</i>	GTGCGCAAACATCTCAGAA	CGTACAATGGGCAAGGCTAT
<i>Tgf-B1</i>	GAGCGCACGATCATGTTG	CTGCCCCTACATCTGGAGTC
<i>NF-KB</i>	CTGGGCCAGAATTGGATAAA	AGGGACTCGTGCATGTTCTC
<i>Cxcl12</i>	TGGGCTGTTGTGCTTACTTG	CCAAACTGTGCCCTTCAGAT
<i>Adipoq</i>	TTAAGGGACCTCTGCCAAGA	CTGGAGTCACGCCTGTGTTA
<i>Gapdh</i>	CGACCTTCACCATCTTGTC A	CCCACCAACCTGGTTCCTAT

Mus RT Primers

Gene	Forward Primer Sequence	Reverse Primer Sequence
<i>Myog</i>	ACCAGGAGCCCCACTTCTAT	GTCCCCAGTCCCTTTTCTTC
<i>Myf5</i>	CAGCTCAGCTTTGTGTGCTC	GCCAGTTCTCCCCTTCTGAG
<i>MyoD1</i>	GCCACTCAGGTCTCAGGTGT	GCTCTGGCCAAGCAACTCT
<i>Myh3</i>	ATGAGTAGCGACACCGAGATG	ACAAAGCAGTAGGTTTTGGCAT
<i>Col1a1</i>	CTCCTGGCAACAAAGGAGAC	GAAGGTCCAGGCTCACCAC
<i>Col3a1</i>	CCTGGCTCAAATGGCTCAC	GACCTCGTGTTCCGGGTAT
<i>Col12a1</i>	TGCACCTGAGCCATAGAGTG	ATTCAAGGCCTTCCGAATTT
<i>Tgf-B1</i>	TGCCCTCTACAACCAACACA	GTTGGACAACTGCTCCACCT
<i>NF-KB</i>	TGCACCTGAGCCATAGAGTG	ATTCAAGGCCTTCCGAATTT
<i>Cxcl12</i>	TGCATCAGTGACGGTAAACCA	CACAGTTTGGAGTGTTGAGGAT
<i>Adipoq</i>	TGTTCTCTTAATCCTGCCCA	CCAACCTGCACAAGTTCCTT
<i>Gapdh</i>	TGACCTCAACTACATGGTCTACA	CTTCCCATTCTCGGCCTTG

Supplementary Table 1. Primer sequences used for qPCR analyses.