A

Vulnerable and Resistant Muscles in Mouse Models of SMA				
Muscle Name	**SMN-/-;SMN2**	**Taiwanese**	**SMNΔ7**	
DeSyn				
Levator auris longus rostral (LALr)				
Sternocleidomastoid				
Gluteus maximus				
Gracilis				
Gastrocnemius (GS)				
Soleus (SO)				
FaSyn				
Levator auris longus caudal (LALc)	*			
Intercostal (IC)				
Quadriceps (QC)				
Extensor digitorum longus (EDL)				
Tibialis anterior (TA)				

100-91%
90-81%
80-71%
70-61%
60-51%
50-41%
<40%

B

Vulnerable and Resistant Muscles in Mouse Models of SMA				
Muscle Name	**SMN-/-;SMN2**	**Taiwanese**	**SMNΔ7**	***Smn$^{2B/-}$***
Fast twitch				
Adductor auris longus (AAL)	* #			
Levator auris longus caudal (LALc)	* #			
Levator auris longus rostral (LALr)				
Digastric posterior				
Masseter				
Longissimus capitis				
Serratus posterior inferior (SPI)				
Serratus posterior superior (SPS)				
Splenius capitis				
Sternocleidomastoid				
Sternohyoid				
Latissimus dorsi				
Intercostal (IC)				
Biceps brachii (BC)				
Deltoid				
Triceps brachii (TC)				
Gluteus maximus				
Psoas				
Extensor digitorum longus (EDL)				
Tibialis anterior (TA)				
Flexor digitorum brevis-2 (FDB2)				
Flexor digitorum brevis-3 (FDB3)				
Flexor digitorum brevis-4 (FDB4)				
Lumbricals			+ o	
Mixed				
Semispinalis capitis				
Trapezius				
Gracilis				
Quadriceps (QC)				
Gastrocnemius (GS)				
Slow twitch				
Auricularis superior (AS)	* #			
Triangularis sterni (TS)				
Transversus abdominis (TVA)				
Soleus (SO)				

Supplementary Figure 4. Comparison of intrinsic muscle properties in four mouse models of SMA.

The colour gradient legend describes seven classification categories of neuromuscular junction pathology according to the percentage of fully occupied motor endplates in a muscle at disease end-

stage (see methods section for more details). The tables shows investigated muscles coloured according to its classification categories by percentage of fully occupied endplates in the *Smn*$^{-/-}$*;SMN2* (Murray et al., 2008; Murray et al., 2010; Thomson et al., 2012), Taiwanese (Lin et al., 2016), SMNΔ7 (Murray et al., 2008; Ling et al., 2012; Comley et al., 2016) and *Smn*$^{2B/-}$ (Murray et al., 2015) mouse model. **(A)** The table displays the muscles categorised by delayed synapsing (DeSyn) or fast synapsing (FaSyn). Note that for the LALc muscle, different results were observed in two independent studies (* = (Murray et al., 2008); # = (Thomson et al., 2012)). **(B)** The table displays the muscles categorised by muscle fibre type (fast-twitch, mixed fibre types and slow-twitch). Note that for the AS, AAL, LALc and lumbrical muscles, different results were observed in two independent studies (* = (Murray et al., 2008); # = (Thomson et al., 2012); + = (Comley et al., 2016); ° = (Ling et al., 2012)).