

Legends to Supplementary Material

Supplementary Figure 1: Comparisons of heart measures to tibia length. Tibia lengths (TL) were found to be significantly smaller in SMA mice at both 7- (A) and 14-day (B) time points. Heart weight to tibia length ratio (HW:TL) in 7- (C) and 14-day-old (D) mice. HW:TL values are decreased in SMA mice of both 7-day-old (p7 WT: 6.29 ± 0.0028 mg/mm vs. p7 SMA: 5.65 ± 0.21 , $p=0.099$) and 14-day-old (p14 WT: 4.55 ± 0.75 mg/mm vs. p14 SMA: 3.95 ± 0.032 mg/mm, $p=0.36$).

Supplementary Figure 2: Cardiomyocyte diameter in 14-day-old mice. Cardiac myocyte diameter was mildly, but not significantly increased in 14-day-old (A) SMA mice (WT: 9.63 ± 0.38 μ m, vs. p14 SMA: 11.83 ± 1.50 μ m, $p=0.34$).

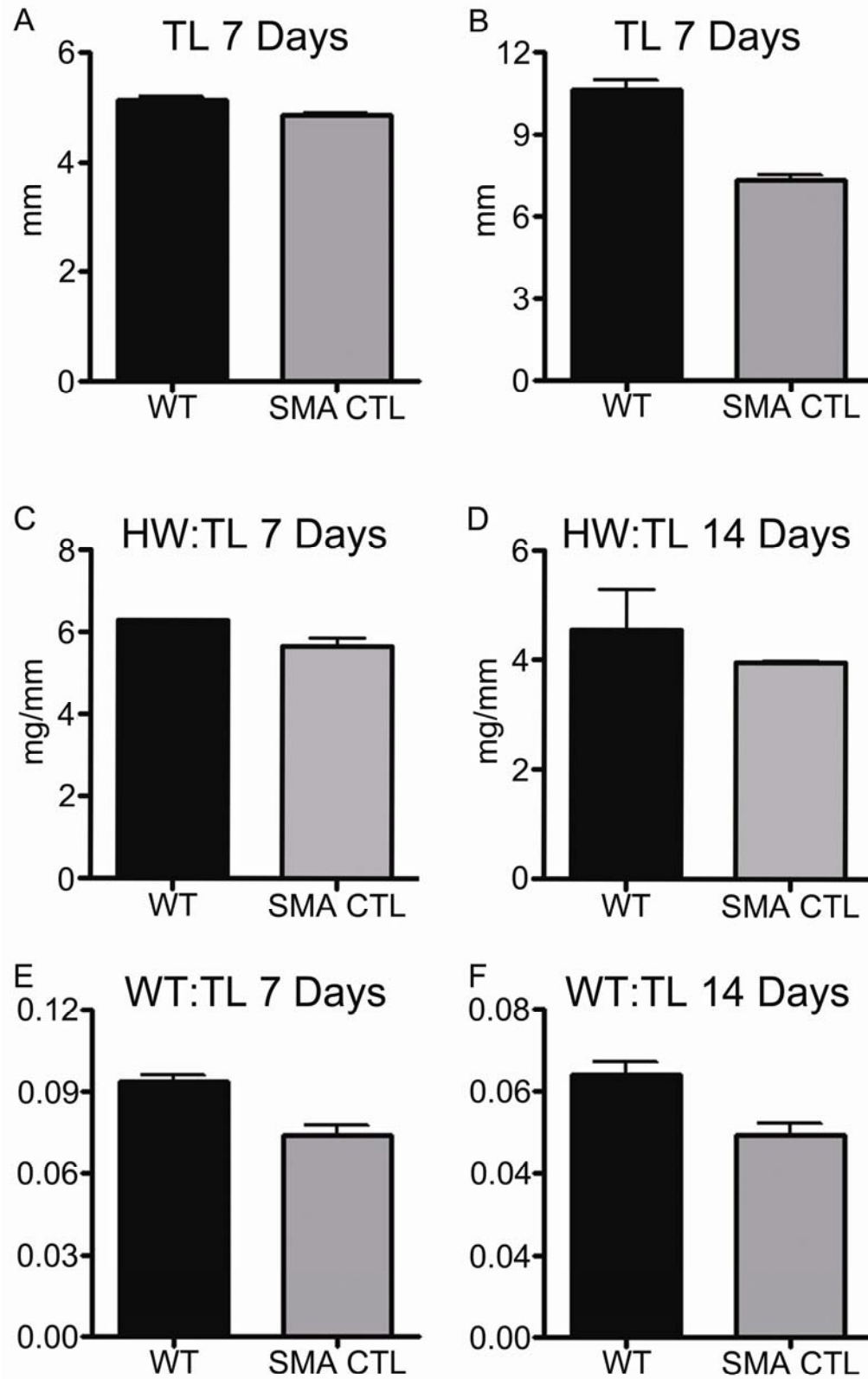
Supplementary Figure 3: Examples of echocardiographic images and analysis from p14 wild type, SMA and scAAV9-treated mice.

Supplementary Video 1: Wild type mouse, B-mode, slowed to $\frac{1}{4}$ speed. Best viewed with Apple QuickTime player.

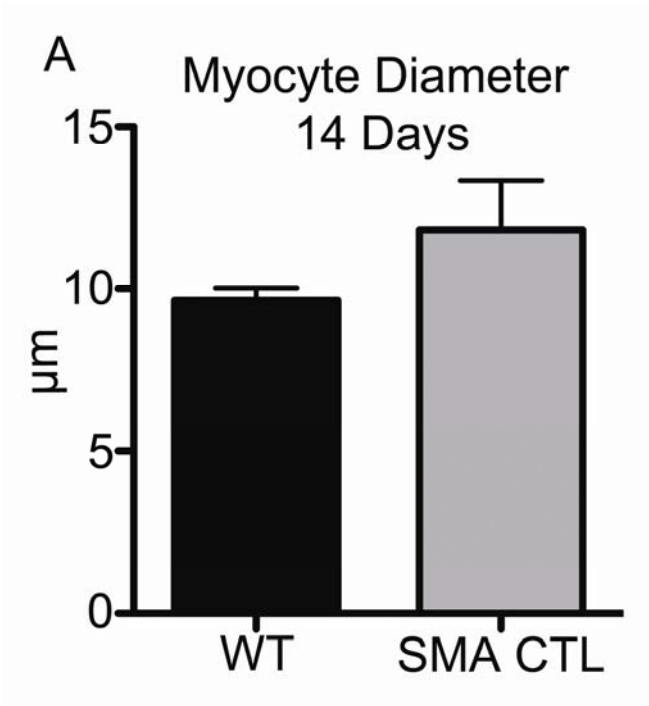
Supplementary Video 2: SMA mouse, B-mode, slowed to $\frac{1}{4}$ speed. Best viewed with Apple QuickTime player.

Supplementary Video 3: scAAV9-SMN-injected mouse, B-mode, slowed to $\frac{1}{4}$ speed. Best viewed with Apple QuickTime player.

Supplementary Figure 1:



Supplementary Figure 2:



Supplementary Figure 3:

