

**Table S1.** Wet muscle weight ratio (%).

	MTMs	MSCs	Control	P
2 weeks	67.17±6.79	58.83±5.31	53.00±7.67	0.04 <sup>+</sup> 0.007 <sup>#</sup> 0.16 <sup>&amp;</sup>
4 weeks	48.17±8.21	46.50±6.41	42.50±7.92	0.70 <sup>+</sup> 0.25 <sup>#</sup> 0.36 <sup>&amp;</sup>
24 weeks	22.83±6.52	22.17±5.74	20.67±5.50	0.86 <sup>+</sup> 0.55 <sup>#</sup> 0.65 <sup>&amp;</sup>

Data are reported as means±SD. MTMs: MyoG-transfected MSCs; MSCs: muscle satellite cells. <sup>+</sup>MTMs vs MSCs; <sup>#</sup>MTMs vs vehicle control; <sup>&</sup>MSCs vs vehicle control (Student's t-test).

**Table S2.** Cross-sectional area of muscle fibers ( $\mu\text{m}^2$ ).

	MTMs	MSCs	Control	P
2 weeks	2.63×10 <sup>3</sup> ±0.39×10 <sup>3</sup>	1.99×10 <sup>3</sup> ±0.58×10 <sup>3</sup>	1.57×10 <sup>3</sup> ±0.47×10 <sup>3</sup>	0.049 <sup>+</sup> 0.002 <sup>#</sup> 0.21 <sup>&amp;</sup>

MTMs: MyoG-transfected MSCs; MSCs: muscle satellite cells. <sup>+</sup>MTMs vs MSCs; <sup>#</sup>MTMs vs vehicle control; <sup>&</sup>MSCs vs vehicle control (Student's t-test).

**Table S3.** Expression levels of MyoG normalized to GADPH levels ( $2^{-\Delta\Delta\text{CT}}$ ).

	MTMs	MSCs	Control	P
2 weeks	3.18±1.13	1.41±0.65	1.03±0.19	0.04 <sup>+</sup> 0.01 <sup>#</sup> 0.31 <sup>&amp;</sup>
4 weeks	0.44±0.08	0.44±0.22	0.27±0.09	0.98 <sup>+</sup> 0.03 <sup>#</sup> 0.21 <sup>&amp;</sup>
24 weeks	0.23±0.10	0.22±0.11	0.24±0.08	0.90 <sup>+</sup> 0.89 <sup>#</sup> 0.79 <sup>&amp;</sup>

MTMs: MyoG-transfected MSCs; MSCs: muscle satellite cells. <sup>+</sup>MTMs vs MSCs; <sup>#</sup>MTMs vs vehicle control; <sup>&</sup>MSCs vs vehicle control (Student's t-test).