Supplementary Table 8. Statistics: Analysis of Variance of Phasic mechanical properties of TTX-Sensitive and -Resistant Skeletal Muscles from *Thamnophis atratus* and *Thamnophis sirtalis* (pertaining to Figure 3, Supp. Fig. 4).

Test:	Kruskal-Wallis (Non-Parametric ANOVA)			
Variable	Baseline Force (N g^{-1}) by Genotype	F_{max} (N g^{-1}) by Genotype	Contraction Duration from 10% to 50% (s)	Contraction Duration from dFdtmax to dFdtmin (s)
chi-squared	109.44	103.9	52.866	52.051
df	3	3	3	3
p-value	$< 2.2 \times 10^{-16}$	$< 2.2 \times 10^{-16}$	1.96×10^{-11}	2.92×10^{-11}
Observations	N = 60, n = 240	N = 60, n = 240	N = 60, n = 240	N = 60, n = 240

Variable	$dFdt_{max}$ (N g^{-1} s^{-1}) by Genotype	$dFdt_{min}$ (N g^{-1} s^{-1}) by Genotype	Time to 10% F_{max} (s) by Genotype	Time to $dFdt_{max}$ (s) by Genotype
chi-squared	96.466	53.442	50.552	54.756
df	3	3	3	3
p-value	$< 2.2 \times 10^{-16}$	1.48×10^{-11}	6.09×10^{-11}	7.74×10^{-12}
Observations	N = 60, n = 240	N = 60, n = 240	N = 60, n = 240	N = 60, n = 240

Variable	Muscle Mass (g) by Genotype	Mass-Adjusted Mouse Units (MAMU) by GT	Time to 50% F_{max} Relaxation (s) by Genotype	Time to $dFdt_{min}$ (s) by Genotype
chi-squared	24.562	48.52	43.049	38.986
df	3	3	3	3
p-value	1.91×10^{-5}	1.65×10^{-10}	2.40×10^{-9}	1.75×10^{-8}
Observations	N = 60, n = 240	N = 60, n = 240	N = 60, n = 240	N = 60, n = 240

Variable	Time to F_{max} (s) by Genotype
chi-squared	38.103
df	3
p-value	2.69×10^{-8}
Observations	N = 60, n = 240

Definitions:

Baseline Force (N g^{-1})	Optimal baseline tension on the muscles in Newtons/gram-tissue
F_{max} (N g^{-1})	Maimum force produced by each phasic contraction in Newtons/gram
Time to 10% F_{max} (s)	Time to develop 10% of maximal force from stimulus onset (seconds)
Time to F_{max} (s)	Time required to achieve maximal force (in seconds)
Time to 50% F_{max} relaxation (s)	Time required to half-maximally relax from stimulus onset (seconds)
Contraction Duration from 10% maximal contraction to 50% post-maximal relaxation (s)	(Time to 50% relaxation) - (Time to 10% contraction) (seconds)
$dFdt_{max}$ (N g^{-1} s^{-1})	Positive peak of first derivative (in Newtons/gram-tissue per second)
$dFdt_{min}$ (N g^{-1} s^{-1})	Negative peak of first derivative (in Newtons/gram-tissue per second)
Time to $dFdt_{max}$ (s)	Time from stimulus onset to peak rate of force development (seconds)
Time to $dFdt_{min}$ (s)	Time from stimulus onset to peak rate of force relaxation (seconds)
Contaction Duration from $dFdt_{max}$ to $dFdt_{min}$ (s)	(Time to dFdtmin) - (Time to dFdtmax) (seconds)

*Note: WTa = Ancestral *Thamnophis atratus* , EPN = TTX resistant *Thamnophis atratus* ; WTs = Ancestral *Thamnophis sirtalis* , LVNV = TTX resistant *Thamnophis sirtalis*

**Note: Shaded values represent adjusted p-values that fall below a predetermined significance level (α=0.05)