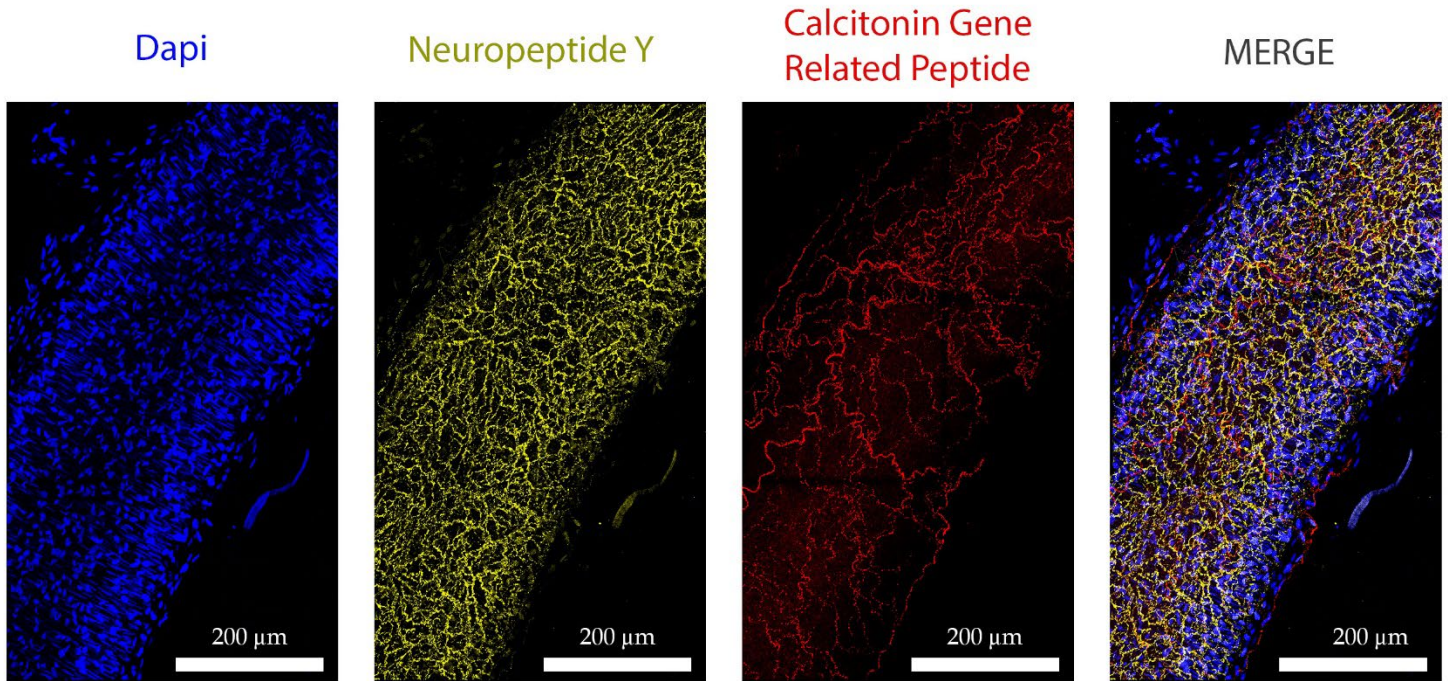


Supplements

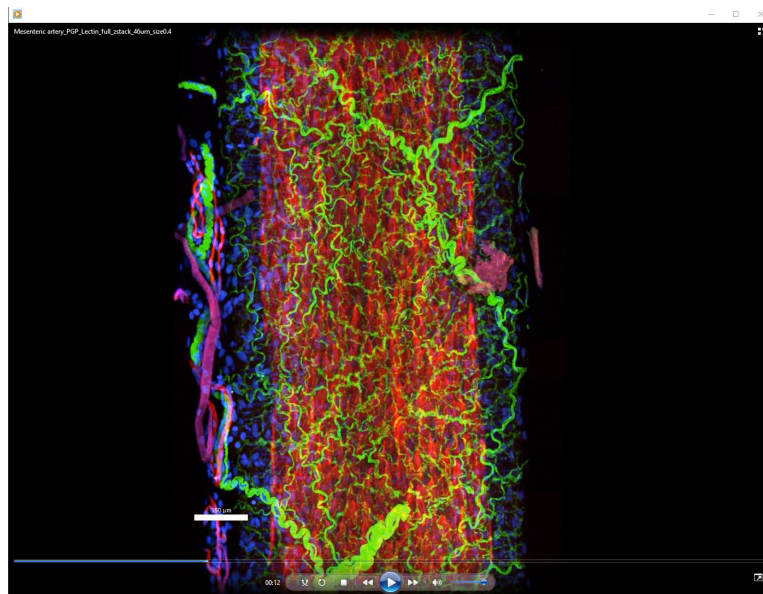
Supplemental Table 1 constituents of buffers used in wire myography of rat mesenteric arteries.

PSS solution	Model name, brand, manufacturer, city, state, country	
119 mM NaCl	Sigma Aldrich - 71378	Amsterdam, The Netherlands
4.7 mM KCl	Merck - 49361000	Merck Chemicals, Amsterdam, The Netherlands
1.18 mM KH ₂ PO ₄	Merck – 1.048730	Merck Chemicals, Amsterdam, The Netherlands
1.17 mM MgSO ₄	Merck – 1.05886	Merck Chemicals, Amsterdam, The Netherlands
0.026 mM EDTA	Sigma Aldrich - ED-500G	Amsterdam, The Netherlands
5 mM HEPES	Merck - 1.101100	Merck Chemicals, Amsterdam, The Netherlands
25 mM NaHCO ₃	Merck - 1.06329	Merck Chemicals, Amsterdam, The Netherlands
1.6 mM CaCl ₂	Merck - 1.02382	Merck Chemicals, Amsterdam, The Netherlands
5.6 mM glucose	Merck - 1.08337	Merck Chemicals, Amsterdam, The Netherlands
KPSS solution		
123.7 mM KCl	Merck - 49361000	Merck Chemicals, Amsterdam, The Netherlands
1.18 mM KH ₂ PO ₄	Merck – 1.048730	Merck Chemicals, Amsterdam, The Netherlands
1.17 mM MgSO ₄	Merck – 1.05886	Merck Chemicals, Amsterdam, The Netherlands
0.026 mM EDTA	Sigma Aldrich - ED-500G	Amsterdam, The Netherlands
5 mM HEPES	Merck - 1.101100	Merck Chemicals, Amsterdam, The Netherlands
25 mM NaHCO ₃	Merck - 1.06329	Merck Chemicals, Amsterdam, The Netherlands
1.6 mM CaCl ₂	Merck - 1.06329	Merck Chemicals, Amsterdam, The Netherlands
Ca- free MOPS		
145 mM NaCl	Sigma Aldrich - 71378	Amsterdam, The Netherlands
4.7 mM KCl	Merck - 49361000	Merck Chemicals, Amsterdam, The Netherlands
1.17 mM MgSO ₄	Merck – 1.05886	Merck Chemicals, Amsterdam, The Netherlands
0.12 mM NaH ₂ PO ₄	Merck - 1.06346	Merck Chemicals, Amsterdam, The Netherlands
3.0 mM MOPS	Sigma Aldrich - M1254	Amsterdam, The Netherlands

5.04 mM Glucose	Merck - 1.08337	Merck Chemicals, Amsterdam, The Netherlands
2.52 mM Pyruvate	Sigma - P2256	Amsterdam, The Netherlands

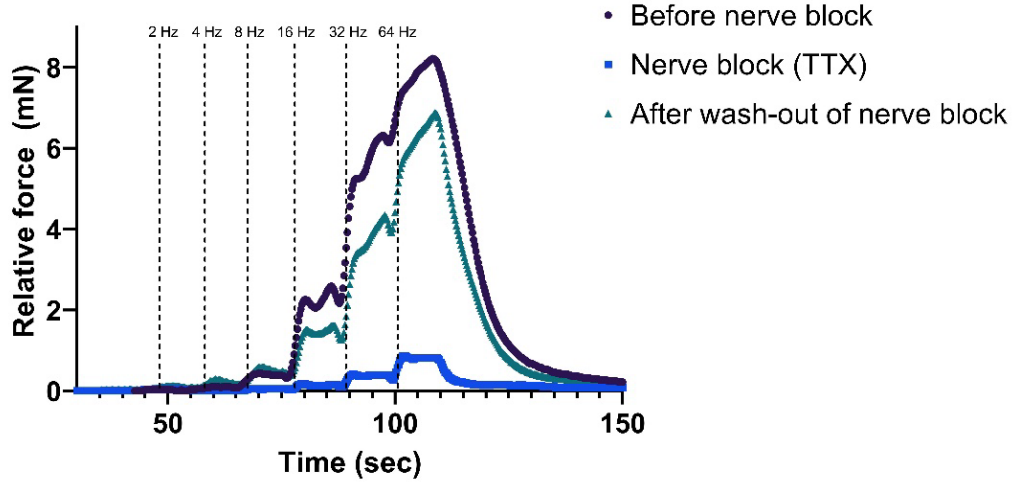


Supplemental Fig. 1 Neuropeptide Y (NPY) and Calcitonin Gene Related Peptide (CGRP) stained segment of rat mesenteric artery. Left: Dapi staining to indicate the nuclei. NPY staining in yellow to indicate the sympathetic nerve fibers, CGRP in red to indicate the sensory nerves within the adventitia of the blood vessel. Right panel: merge of DAPI, NPY, and CGRP, showing the innervation of rat mesenteric artery segment. Scale bar indicates 200 μm



Supplemental Video 1 3D video of blood vessel in IMARIS [Mesenteric artery - YouTube](https://www.youtube.com/watch?v=-xcdQabHq3A). If the link does not work then please copy/paste: <https://www.youtube.com/watch?v=-xcdQabHq3A>

Electrical Field Stimulation with and without nerve block



Supplemental Fig. 2 Tetrodotoxin (TTX, 3 μ M) nerve-blocking abolishes contraction upon electrical field stimulation. The graph shows how TTX could abolish contraction up to 16 Hz, whereas a non-nerve regulated contraction could still be seen at 32 Hz and 64 Hz

Supplemental Table 2 descriptive results for the non-linear regression fit. Bottom values were constrained to 0 and are therefore not shown

	KPSS	U46619	Methacholine	Electrical Stimulation
Top	1.13	0.78	0.93	0.89
Slope (per $^{\circ}$ C, γ)	-0.23	-0.09	-0.22	-0.58
ET50 ($^{\circ}$ C)	56.9	51.4	56.7	55.9
95% C.I.	56.2 to 57.7	47.0 to 55.8	55.3 to 58.2	55.1 to 56.7
Goodness of fit (R^2)	0.67	0.34	0.48	0.50