Supplementary Material

Characterization of Systemic and Regional Hemodynamics and Vascular Dysfunction in Mice with Fecal Induced Peritonitis

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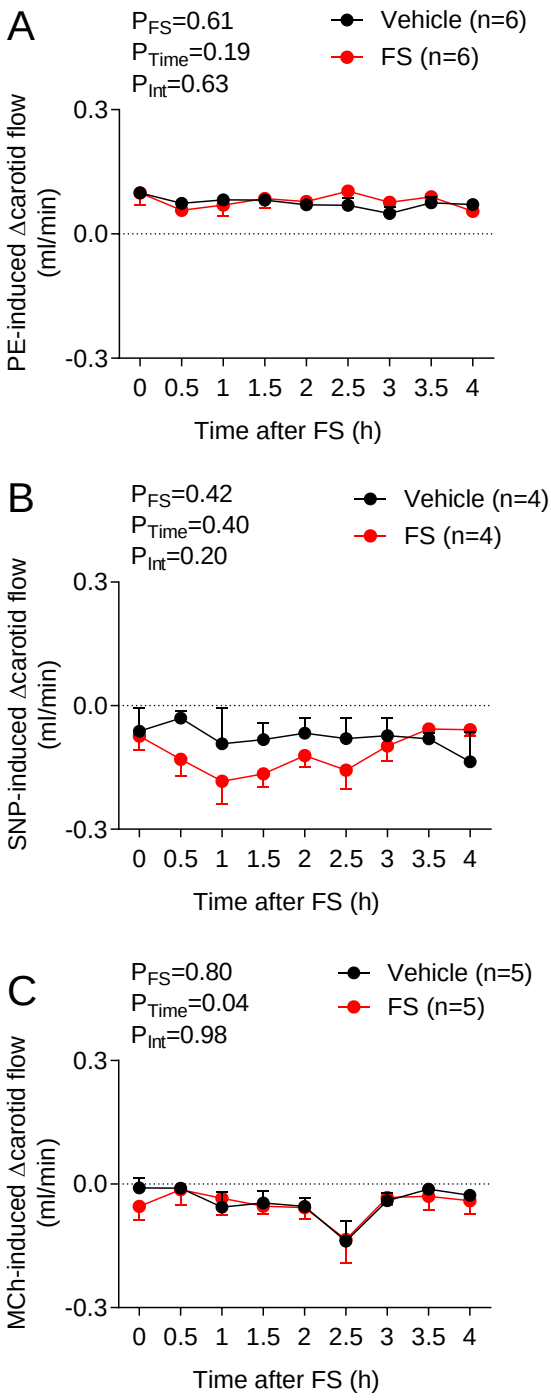

Figure. S1. Fecal-slurry-induced peritonitis (FIP) has little effect on carotid blood flow responses to repeat administration of bolus doses of (A) PE, (B) SNP, and (C) MCh in mice. N=6-7 mice per group. Data was analyzed by two-way analysis of variance (ANOVA) for effects of FS and time.

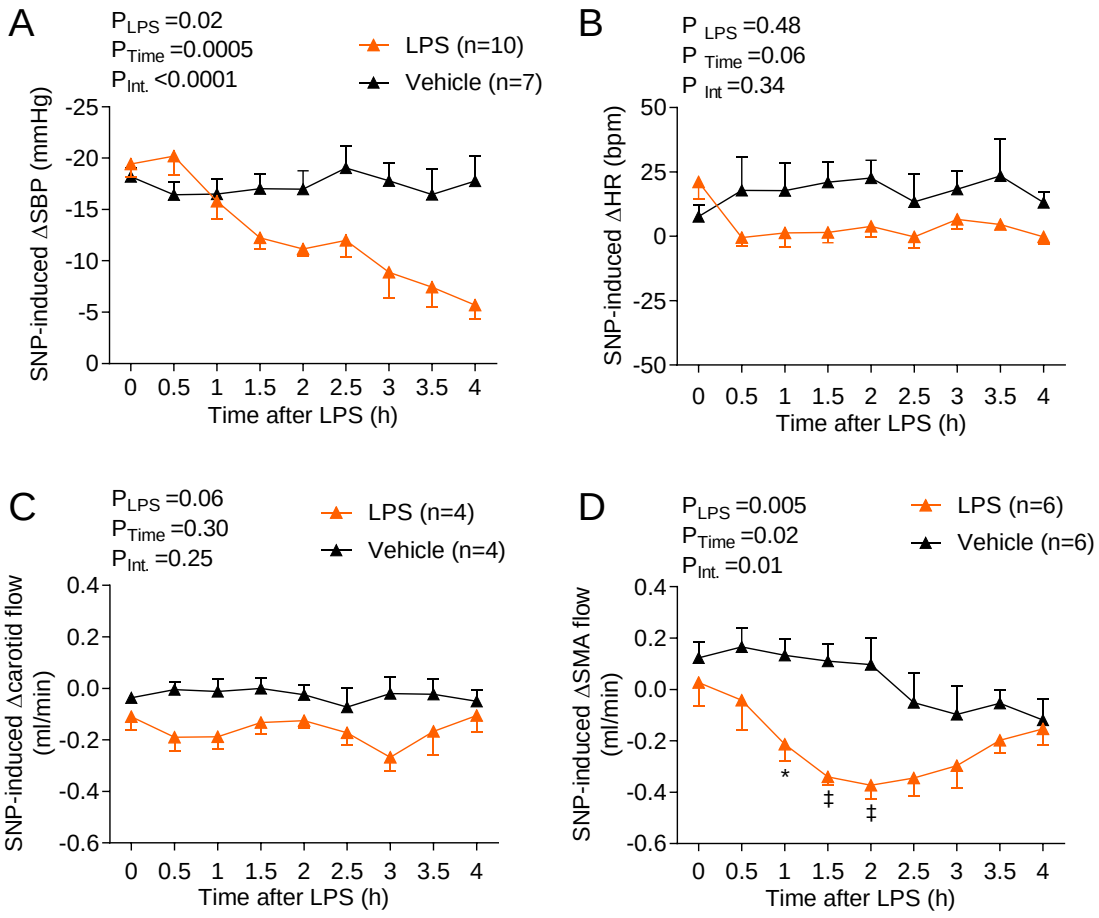

Figure. S2. Lipopolysaccharide (LPS) administration causes progressive reduction in systolic blood pressure response (A), no changes in heart rate (B) and carotid flow (C), and substantial reduction in SMA flow response to bolus doses of SNP (D) in mice. N=4-6 mice per group. Data was analyzed by two-way analysis of variance (ANOVA) for effects of FS and time, followed with Holm-Sidak post hoc test for multiple comparisons. *P<0.05 and ‡P<0.001 compared to vehicle at the same time.

Table S1. Biochemical parameters of blood gas analysis in fecal slurry (FS)-injected and vehicle groups

	Vehicle				FS				P value		
	0.5-hour	**1-hour**	**2-hour**	**4-hour**	**0.5-hour**	**1-hour**	**2-hour**	**4-hour**	**FS**	**Time**	**Int.**
pCO_2 (mmHg)	25.5±1.8	25.5±3.0	31.8±3.8	30.9±3.4	23.8±1.9	29.9±3.2	38.1±6.1	35.8±3.5	0.20	**0.03**	0.76
pO_2 (mmHg)	265.0±35.1	250.0±41.9	262.5±30.5	283.0±36.7	215.1±37.6	186.3±24.8	245.9±25.9	144.5±37.8*	**0.008**	0.58	0.32
sO_2%	99.95±0.03	99.95±0.03	99.75±0.10	99.90±0.00	99.08±0.46	98.96±0.54	99.82±0.02	99.55±0.20	**0.01**	0.47	0.21
ctO_2 vol%	19.6±0.5	19.4±0.7	19.4±0.8	18.7±0.4	22.3±0.8#	21.8±0.5#	20.9±0.9	21.0±1.2	**0.0002**	0.47	0.89
Hct%	42.98±8.64	41.71±1.39	41.25±1.28	40.14±1.01	48.17±1.38	47.29±1.02	44.86±1.92	48.75±2.17	**0.02**	0.86	0.85
cHb (g/dL)	13.46±0.45	13.53±0.48	13.41±0.39	13.06±0.33	15.77±0.45*	15.49±0.35*	14.66±0.63	15.88±0.71‡	**0.0002**	0.53	0.33
cNa^+ (mmol/L)	147.4±1.12	148.0±2.2	151.1±1.8	150.8±0.8	142.2±1.5	144.0±3.0	144.4±1.6*	150.0±1.7	**0.02**	**0.01**	0.26
cK^+ (mmol/L)	4.72±0.4	4.1±0.2	4.4±0.3	4.2±0.1	4.8±0.2	4.9±0.2	4.6±0.3	5.5±0.1†	**0.003**	0.42	0.07
cCa^{2+} (mmol/L)	1.4±0.0	1.3±0.0	1.4±0.0	1.4±0.0	1.4±0.0	1.4±0.1	1.4±0.0	1.4±0.0	0.78	0.70	0.50
cCl^- (mmol/L)	110.8±3.1	111.8±0.8	109.6±1.8	113.4±2.2	106.5±2.3	99.4±4.0	106.2±1.7	106.2±2.6	**0.03**	0.07	0.44
cBase (mmol/L)	-6.6±0.5	-8.8±1.4	-6.3±0.6	-7.2±0.9	-8.4±0.6	-8.2±0.9	-9.9±0.9*	-13.4±1.9‡	**0.001**	0.08	**0.02**
$cHCO_3^-$ (mmol/L)	20.1±0.4	19.2±0.7	18.8±0.7	19.0±0.6	19.0±0.3	18.5±0.8	16.5±1.0	14.0±1.4‡	**0.002**	**0.007**	**0.06**
Lactate (mmol/L)	3.3±0.4	3.3±0.4	4.4±0.4	4.0±0.4	5.1±0.5#	5.8±0.7*	6.2±0.6#	7.2±0.7‡	**<0.0001**	**0.06**	0.51
pH	7.44±0.02	7.44±0.04	7.36±0.03	7.38±0.03	7.42±0.02	7.36±0.04	7.27±0.06	7.21±0.04†	**0.002**	**0.003**	0.28

Data is presented as mean±SEM. N=5 mice per group. Data was analyzed by two-way ANOVA for effects of FS and time, followed with Holm-Sidak post hoc test for multiple comparisons. *P<0.05, †P<0.01, ‡P<0.001, # indicates P=0.06 compared to vehicle treated mice at the same time-point. sO_2: Oxygen saturation of hemoglobin, pO_2: Partial pressure of O_2, pCO_2: Partial pressure of CO_2, HCO_3^-: Standard bicarbonate, cBase (Ecf): Standard base excAess, ctO_2: Oxygen content.