

Supplemental Figure Legends

Supplemental Figure 1. Time activity curves (TACs) from dynamic PET scans for **(A)** spinal cord and **(B)** whole brain at 7 days post-fracture do not exhibit differences in tracer kinetic trajectory using mixed model statistical tests.

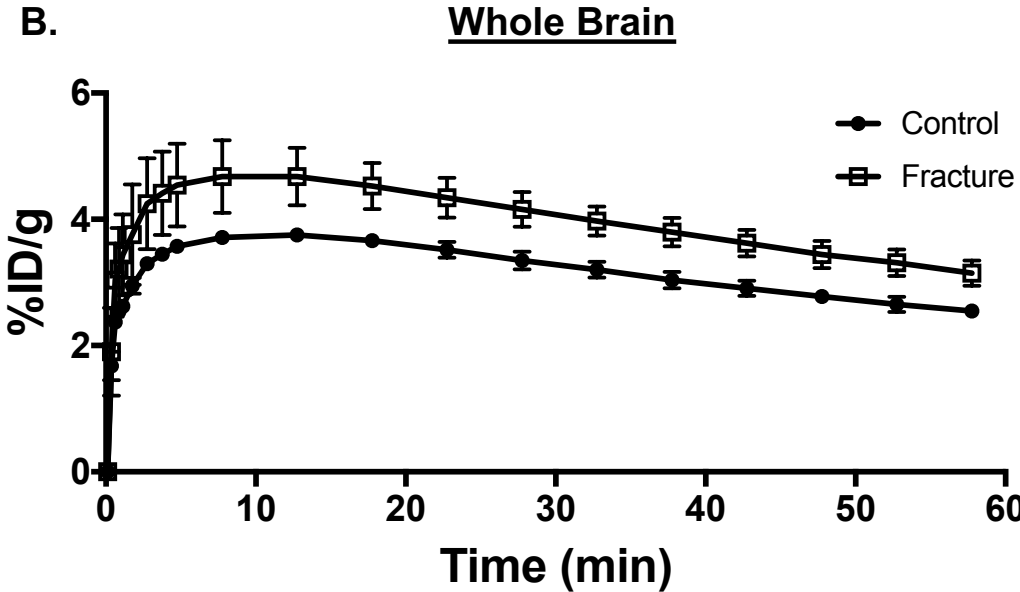
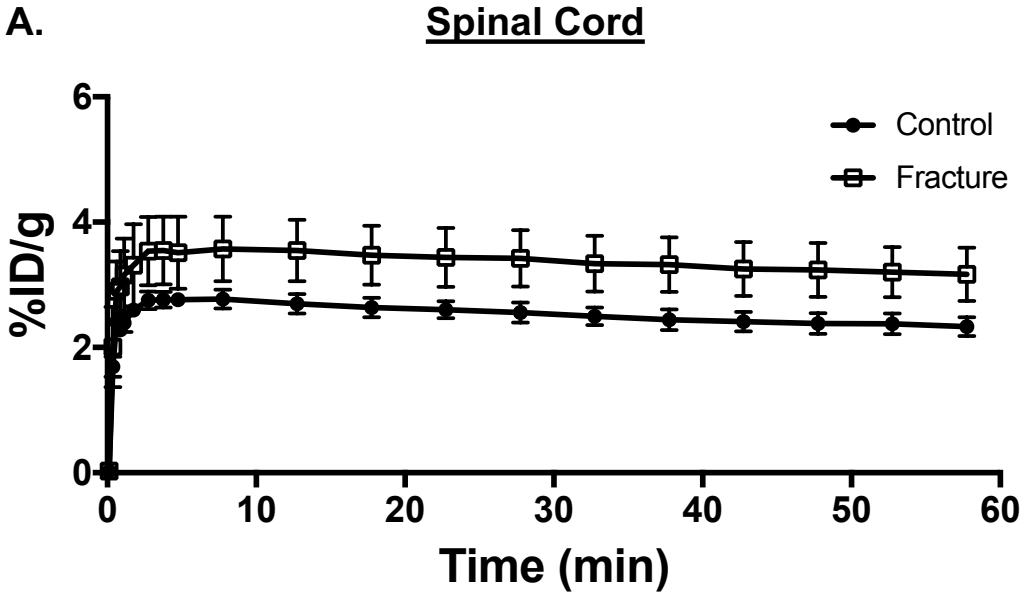
Supplemental Figure 2. *Ex vivo* autoradiography and tissue gamma counting of CNS tissues confirmed *in vivo* PET results. Autoradiography images show a marked increase in signal at 7 days, but not 7 weeks post-fracture, for **(A)** whole spinal cord and **(B)** brain sections (20 μ m). Gamma counting of **(C)** spinal cord revealed significantly increased tracer uptake in spinal cord at 7 days post-fracture compared to control ($*p<0.05$) and fractured mice at 7 weeks post-fracture ($**p<0.01$ vs. 7 day). Individual data points are shown in addition to mean + SEM (n = 8 control, n = 6 CRPS 7 day and n = 4 CRPS 7 week). One-way ANOVA with Tukey's multiple comparisons *post hoc* test was performed. **(D)** brain tissue, **(E)** blood and **(F)** spleen.

Supplemental Figure 3. Baseline TSPO expression is mostly attributable to endothelial cells. Images of control and CRPS spinal cords shows colocalization of TSPO expression with PECAM1+ vascular endothelial cells at baseline and 7 weeks post-fracture. At 7 days post-fracture, TSPO expression is seen more clearly in PECAM1- cells and overall vasculature is less prominent. Scale bar is 50 μ m (20x). Representative images are shown from n = 5 control, n = 5 CRPS 7 day and n = 6 CRPS 7 week mice with 3 - 5 spinal cord sections examined per mouse.

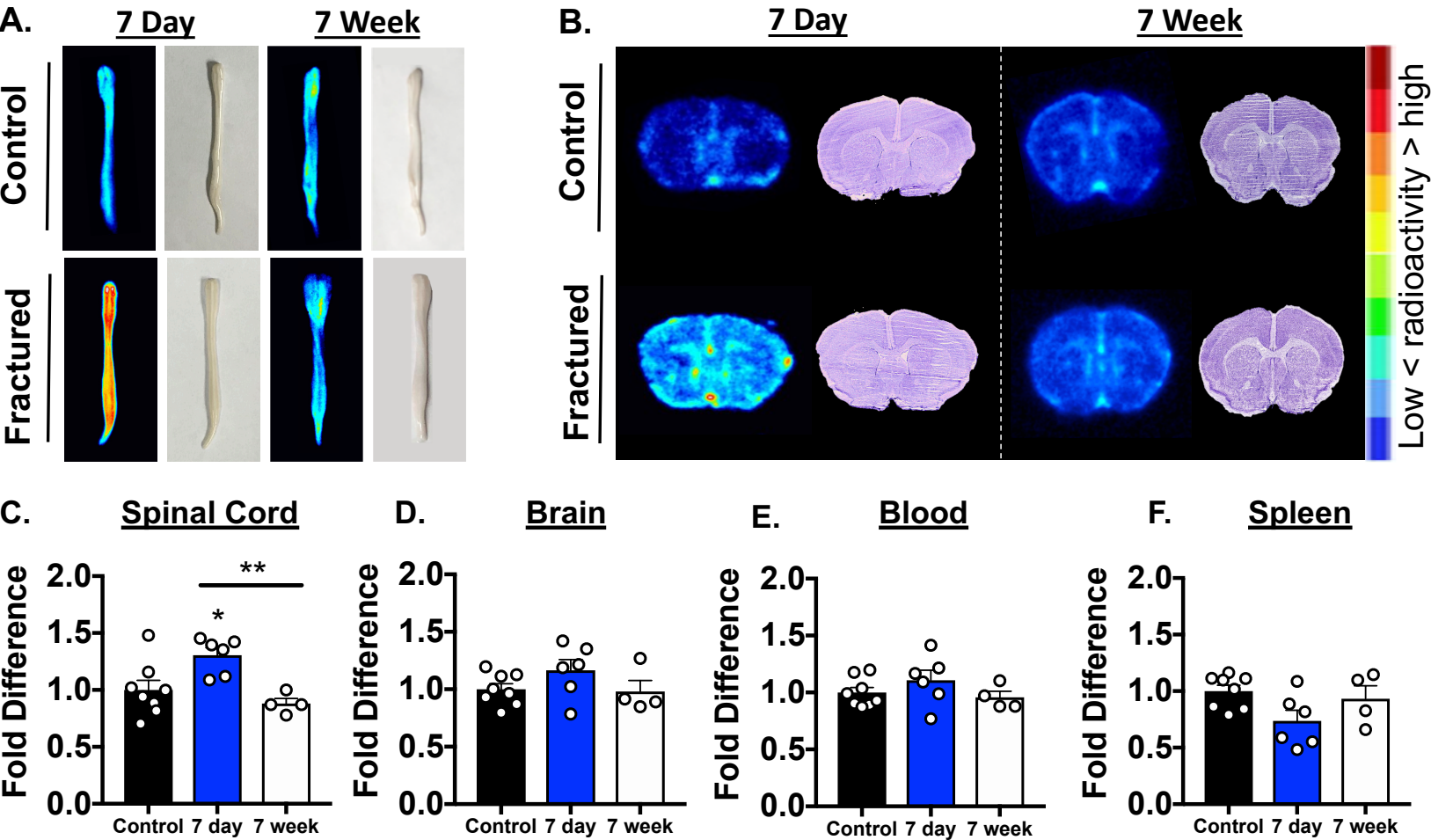
Supplemental Figure 4. TSPO expression is increased in CD11b+ microglia at 7 days after fracture. Manual counts of cells expressing TSPO and CD11b were performed and expressed as % of CD11b+ positive cells. 2 - 3 spinal cord sections were examined per mouse with n = 5 control, n = 5 CRPS 7 day and n = 6 CRPS 7 week mice. ** $p < 0.01$, **** $p < 0.0001$, one-way ANOVA with Tukey's multiple comparisons *post hoc* test was performed.

Supplemental Table 1. Breakdown of mouse numbers for each figure.

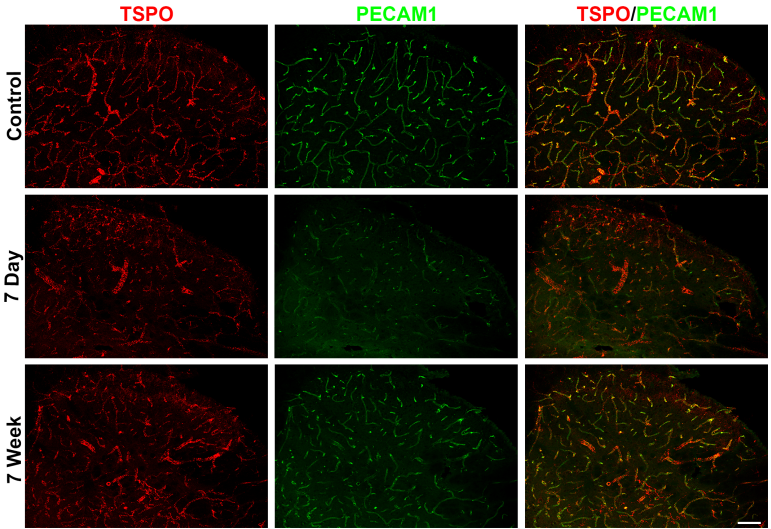
Supplemental Figure 1

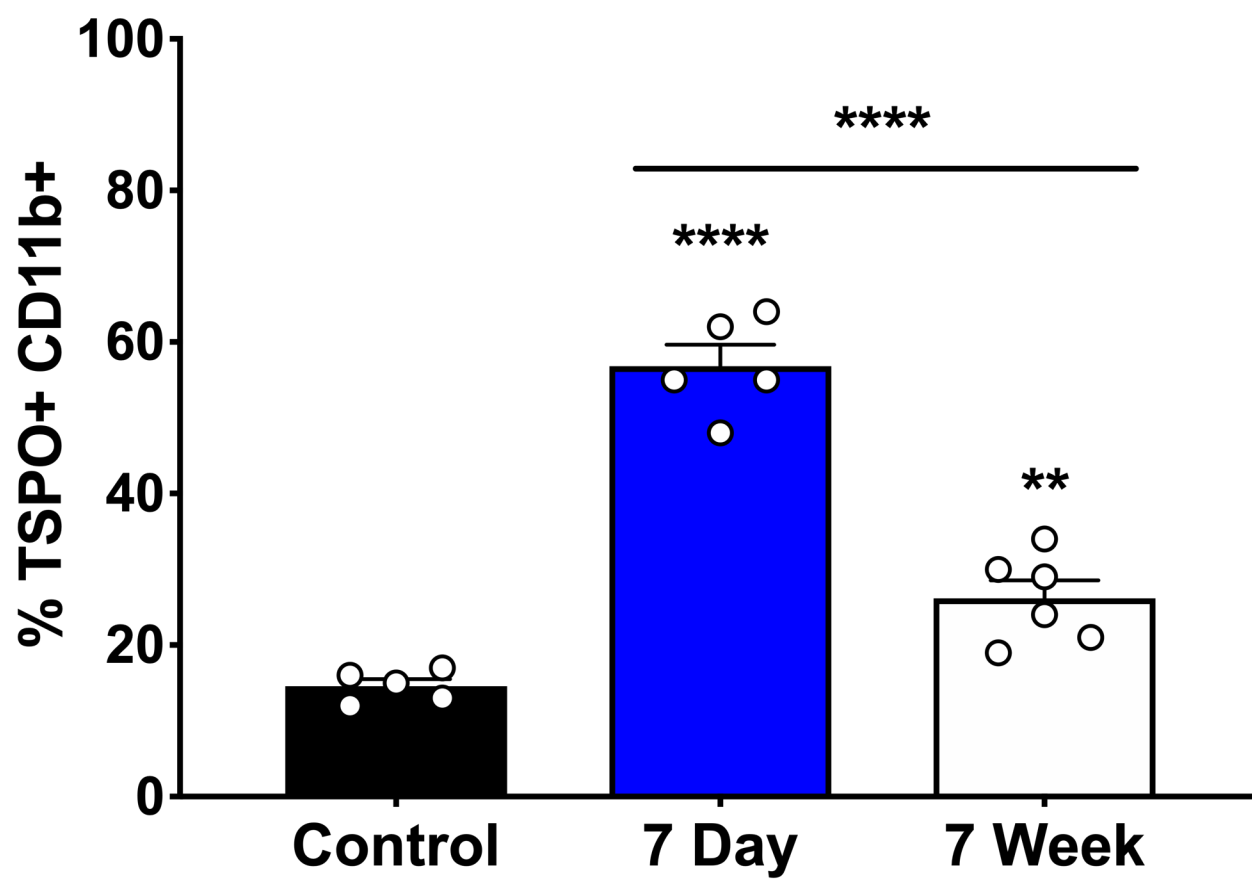


Supplemental Figure 2



Supplemental Figure 3





Supplemental Table 1.**Mouse numbers for each figure**

Figure(s)	Control Group No.	CRPS Group No.	Statistical test
2A*	6	6, except 5 at week 20	One-way ANOVA, Tukey's post-test
2B	6, from 2A	6, from 2A	Unpaired t-test
2C	6, from 2A	6, from 2A	Unpaired t-test
2D	6, from 2A	6, from 2A	Unpaired t-test
3B**	5	8	Unpaired t-test
3C	8	8	Unpaired t-test
3D	5	5	Unpaired t-test
3E	5	6	Unpaired t-test
3F	3	4	Unpaired t-test
4B**	5	8	Two-way ANOVA, Sidak's post-test
4C	8	8	Two-way ANOVA, Sidak's post-test
4D	5	5	Two-way ANOVA, Sidak's post-test
4E	5	6	Two-way ANOVA, Sidak's post-test
4F	3	4	Two-way ANOVA, Sidak's post-test
5B**	5	8	Two-way ANOVA, Sidak's post-test
5C	8	8	Two-way ANOVA, Sidak's post-test
5D	5	5	Two-way ANOVA, Sidak's post-test
5E	5	6	Two-way ANOVA, Sidak's post-test
5F	3	4	Two-way ANOVA, Sidak's post-test
6***	5	5 at Day 7; 6 at Week 7	N/A
7***	5	5 at Day 7; 6 at Week 7	N/A
S1	3	3	Mixed-model testing
S2C^	8	6 at Day 7; 4 at Week 7	One-way ANOVA, Tukey's post-test
S2D^	8	6 at Day 7; 4 at Week 7	One-way ANOVA, Tukey's post-test
S2E^	8	6 at Day 7; 4 at Week 7	One-way ANOVA, Tukey's post-test
S2F^	8	6 at Day 7; 4 at Week 7	One-way ANOVA, Tukey's post-test
S2G^	8	6 at Day 7; 4 at Week 7	One-way ANOVA, Tukey's post-test
S3***	5	5 at Day 7; 6 at Week 7	N/A
S4***	5	5 at Day 7; 6 at Week 7	One-way ANOVA, Tukey's post-test

*Longitudinal behavioral cohort, one mouse died before reaching 20 weeks

**Longitudinal imaging cohort of n = 8 mice/group, number of mice successfully catheterized and scanned at each time point listed

***Spinal cord sections from same mice stained with various antibody

^BioD/ARG cohort, same mice used for all tissues