

**The brain-body circuit mediates acute stress-induced anti-inflammatory
reflex in bacterial cystitis by suppressing ILC2 activation**

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Supplementary Figures

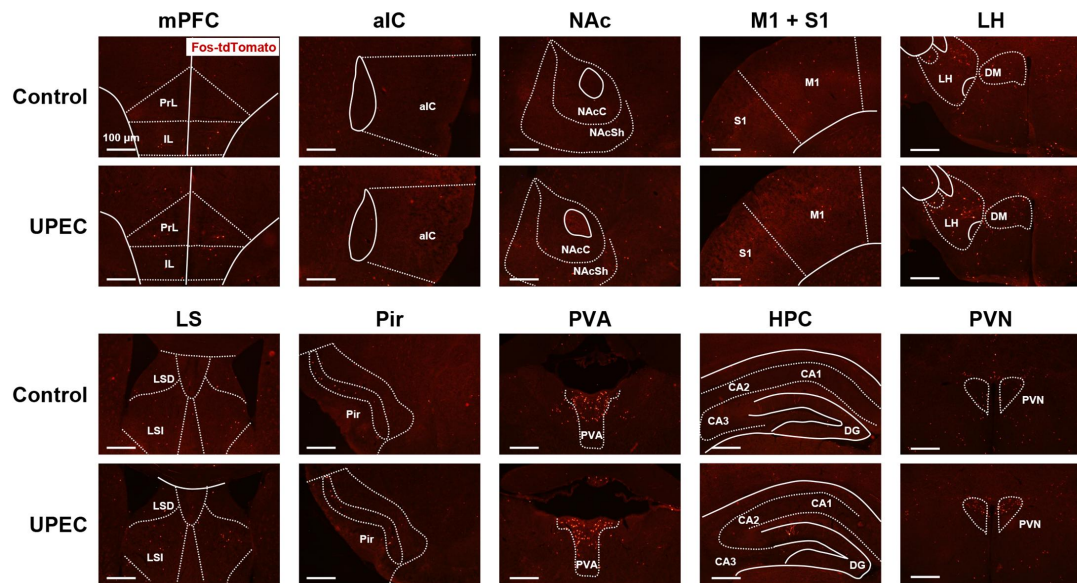


Fig S1. Changes in neuronal activity during UTIs. Representative images of c-Fos expression in several brain neurons labeled with tdTomato (red). Scale bar, 100 μ m.

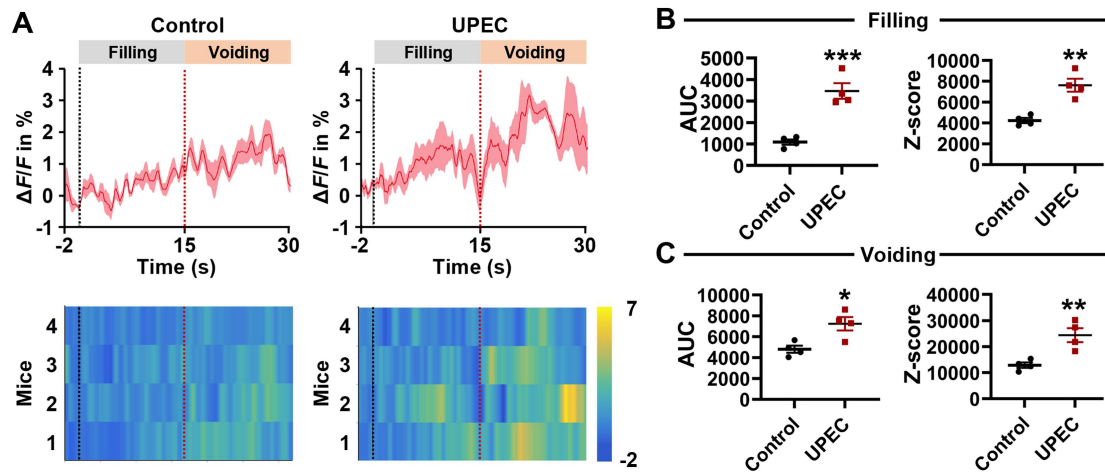


Fig S2. The neural activity of PVN neurons during micturition in mice. (A) Upper: average calcium signals ($\Delta F/F$ in %) synchronized during bladder filling and voiding phases in Control and UPEC-infected mice. Thick lines, mean; shaded areas, SEM. Lower: heatmap of calcium signals in each mouse. (B) The AUC and Z-score of calcium signals recording in the PVN neurons during bladder filling phase ($n = 4$ mice per group). $**P < 0.01$, $***P < 0.001$ vs Control group. (C) The AUC and Z-score of calcium signals recording in the PVN neurons during voiding phase ($n = 4$

mice per group). * $P < 0.05$, ** $P < 0.01$ vs Control group. All results are presented as mean $\pm$ SEM and analyzed by 2-tailed Student's t -tests.

Supplementary Tables

Table S1. Primers used for quantitative real-time PCR reactions.

Gene symbol	Primer (5'→3')
<i>GAPDH</i>	Forward: TGTCTCCTGCGACTTCAACA Reverse: GGTGGTCCAGGGTTTCTTACT
<i>Il1β</i>	Forward: GTGTCTTTCCCGTGGACCTT Reverse: AATGGGAACGTCACACACA
<i>Il6</i>	Forward: CTTCTTGGGACTGATGCTGGT Reverse: CTCTGTGAAGTCTCCTCTCCG
<i>Tnfa</i>	Forward: CGGGCAGGTCTACTTTGGAG Reverse: ACCCTGAGCCATAATCCCCT
<i>Il5</i>	Forward: GACAAGCAATGAGACGATGAGG Reverse: CCCACGGACAGTTTGATTCTTC
<i>Il13</i>	Forward: CTTGCTTGCCTTGGTGGTCTC Reverse: GGGAGTCTGGTCTTGTGTGATGT
<i>Csf2</i>	Forward: GCAATTTACCAAACCTCAAGG Reverse: CTCAT TACGCAGGCACAAAAG
<i>Calca</i>	Forward: AAGGGAGCACGTGT TATGGT Reverse: TCCATTCTGAATTGAGGGTGGG