

| Acronym | Gene name | GeneBank acc. no | Oligonucleotide (5'-3') | Amplicon (bp). | Slope | R^2 | E |
|--------------|---|------------------|--|----------------|-------|-------|------|
| Ci-TLR1 | Toll-like receptor1 | AB495261 | F cgtagccaatagctggacaa R agtcgttcaacaccaaccaa | 135 | -3.08 | 0.982 | 100% |
| Ci-TLR2 | Toll-like receptor2 | AB495262 | F aatgtgcattcacgagcgtg R acgtcgagatgtgctgatgc | 82 | -2.17 | 0.935 | 100% |
| IL-17-1 | Interleukin 17-1 | NM_001129875 | F acatgtccagcagacgagga R caaccaacggtaatggttg | 127 | -3.49 | 0.989 | 94% |
| IL-17-2 | Interleukin 17-2 | NM_001129874 | F cgggtgcattgcttctagt R cagcaggtacagcctattg | 145 | -3.45 | 0.996 | 95% |
| TNF α | tumor necrosis factor alpha | NM_001128107 | F caaatggaccgccattaaa R cctgttccgtgtccaaga | 64 | -3.33 | 0.975 | 100% |
| C3-1 | complement component c3 | NM_001032512 | F agcgaagatccattgtac R gcaattcctggtccacagt | 174 | -3.36 | 0.997 | 99% |
| VCBP-A | Variable region-containing chitin-binding protein A | HQ324141 | F attgatacagtgcagtg R cggtagtgggaatatgaa | 188 | -2.84 | 0.979 | 100% |
| VCBP-C | Variable region-containing chitin-binding protein C | HQ324151 | F agaccaacccaacacagta R cccatacattgcagcatttc | 144 | -3.16 | 0.996 | 100% |
| act | cytoskeletal actin | AJ297725 | F cccaatcatgttcgaaacc R acaccatcaccactgtcgaa | 118 | -3.41 | 0.992 | 97% |

Table S1. Primer sequences and efficiency of *Ciona* genes analyzed in qPCR experiments.

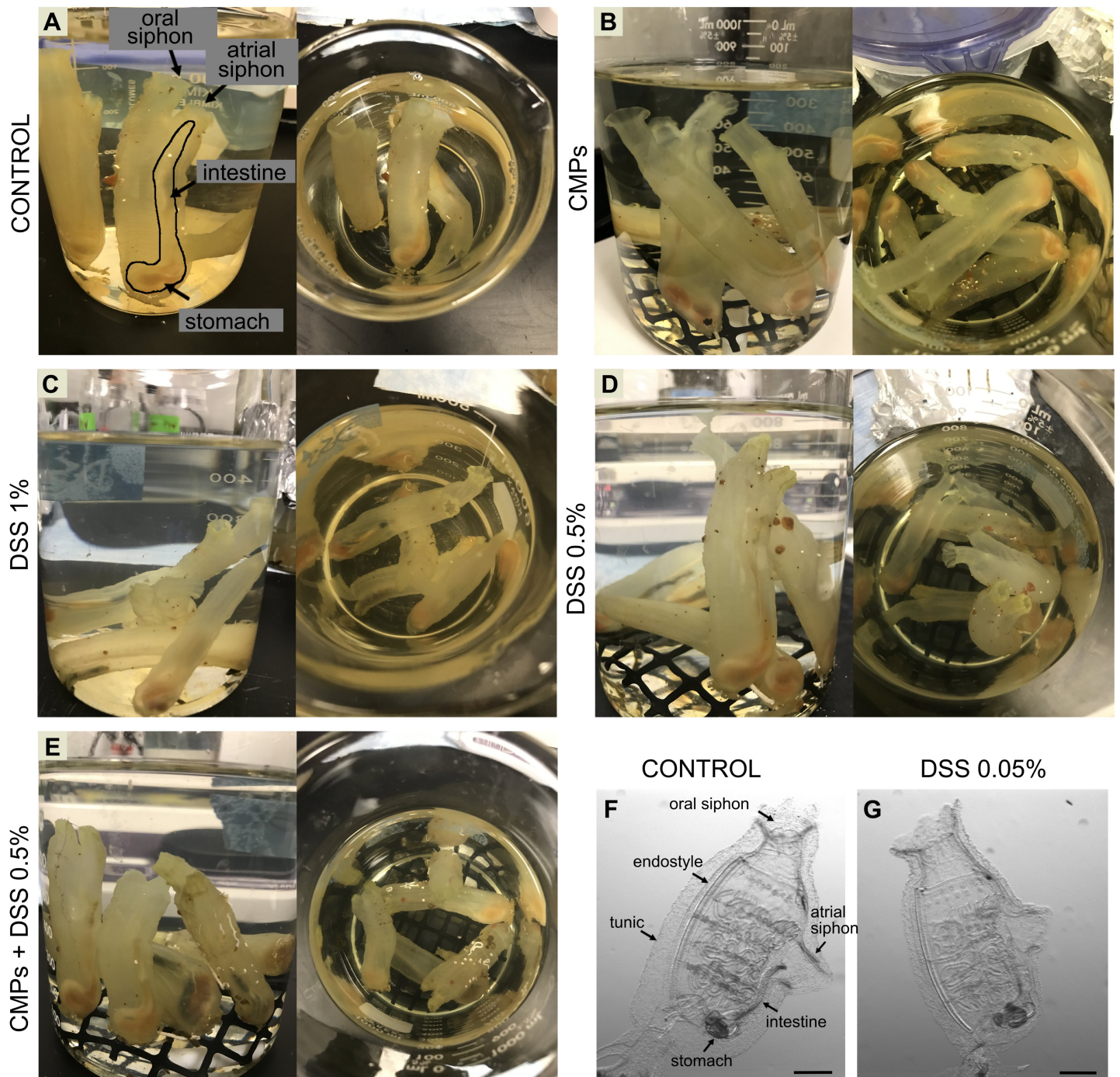
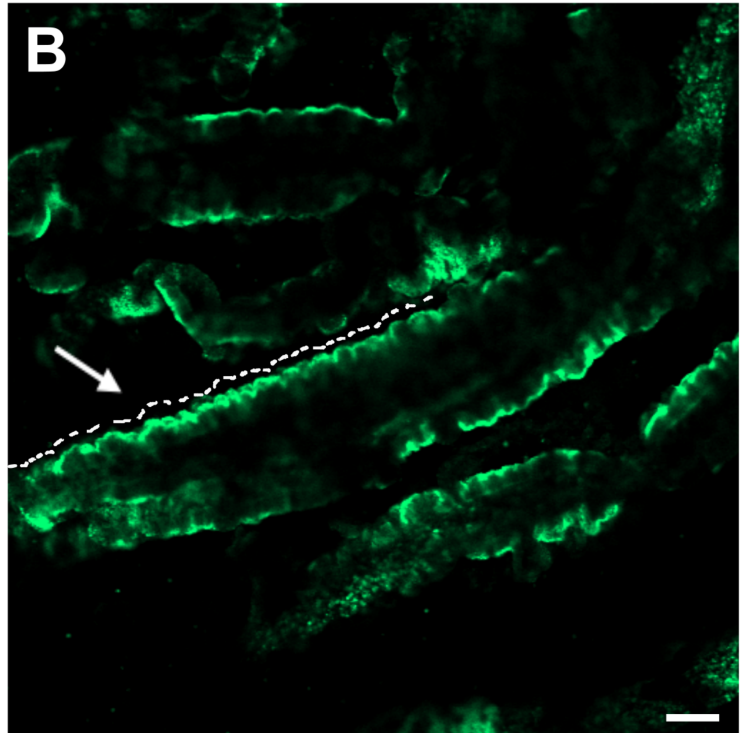
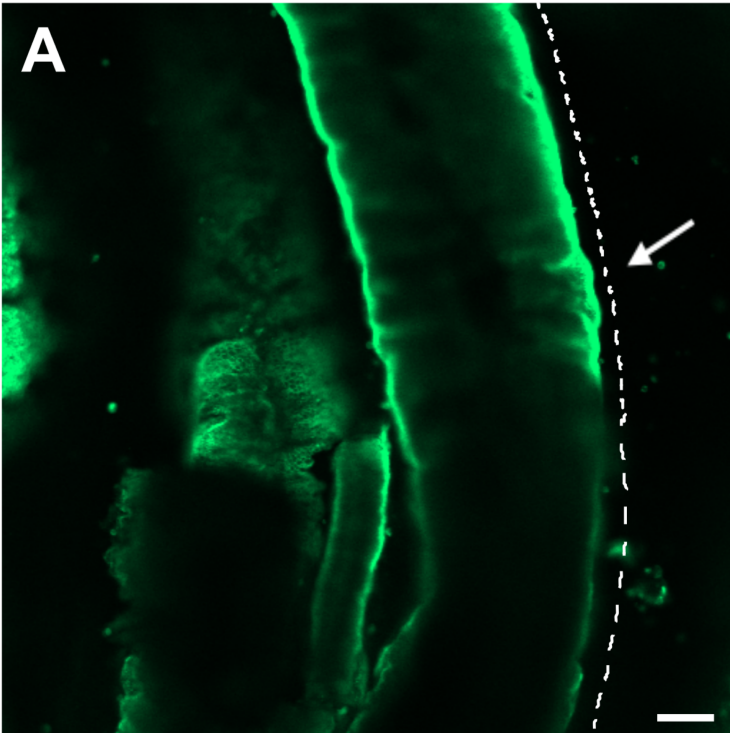


Figure S1. *Ciona* juveniles and adults. Whole mount images of *Ciona* adults after overnight treatment with the different experimental conditions. Control (A), CMPs (B), DSS 1% (C), DSS 0.5% (D), DSS 0.5% plus CMPs (E). Left image, side view; right image above view. Stage 7/8 of 1st ascidian juvenile control (F) and DSS 0.05% treated (G). n=30 animals observed for each condition. Scale bars 500 μ m.

CONTROL

DSS 0.5%



CMPs

CMPs + DSS 0.5%

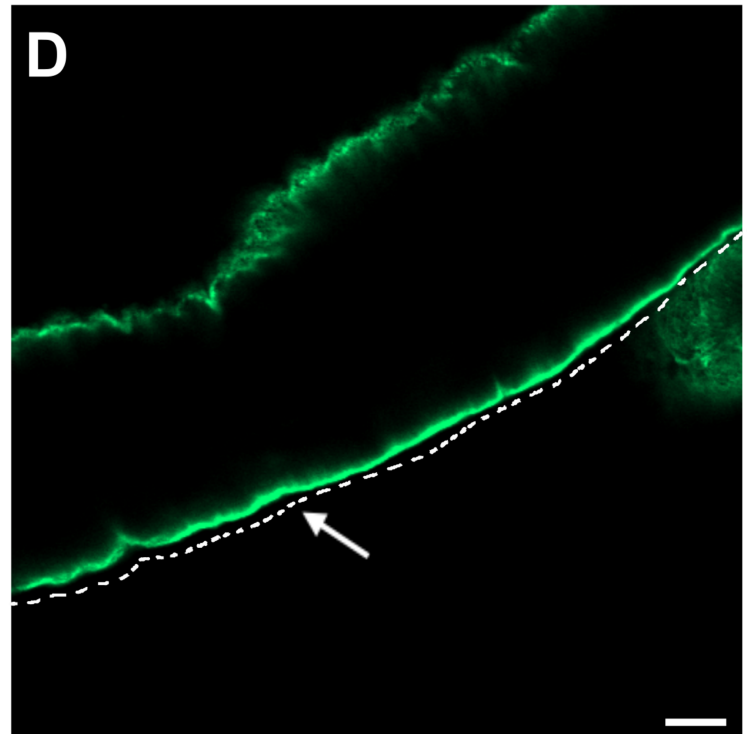
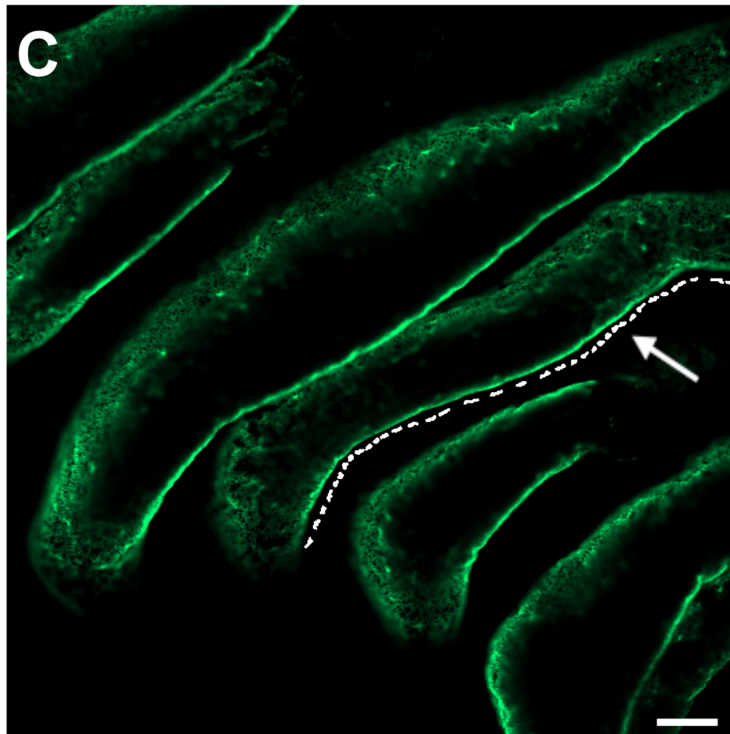


Figure S2. CMPs effect on the stomach of adult DSS-treated animals. Alexa Fluor 488 phalloidin staining reveals a smooth continuous stomach epithelium in control animals (A, arrow) and furrow-like structures in Control and (B) DSS-treated stomach epithelium (B, arrow). The presence of CMPs in the incubation medium did not affect the epithelial morphology (C D, arrow) and is comparable in to the controls, CMP-only treated animals (D C). White dashed lines highlight the morphology of the epithelium. n=6 animals observed for each condition. Scale bars (A, C D) 50 μ m and (B, D C) 100 μ m.