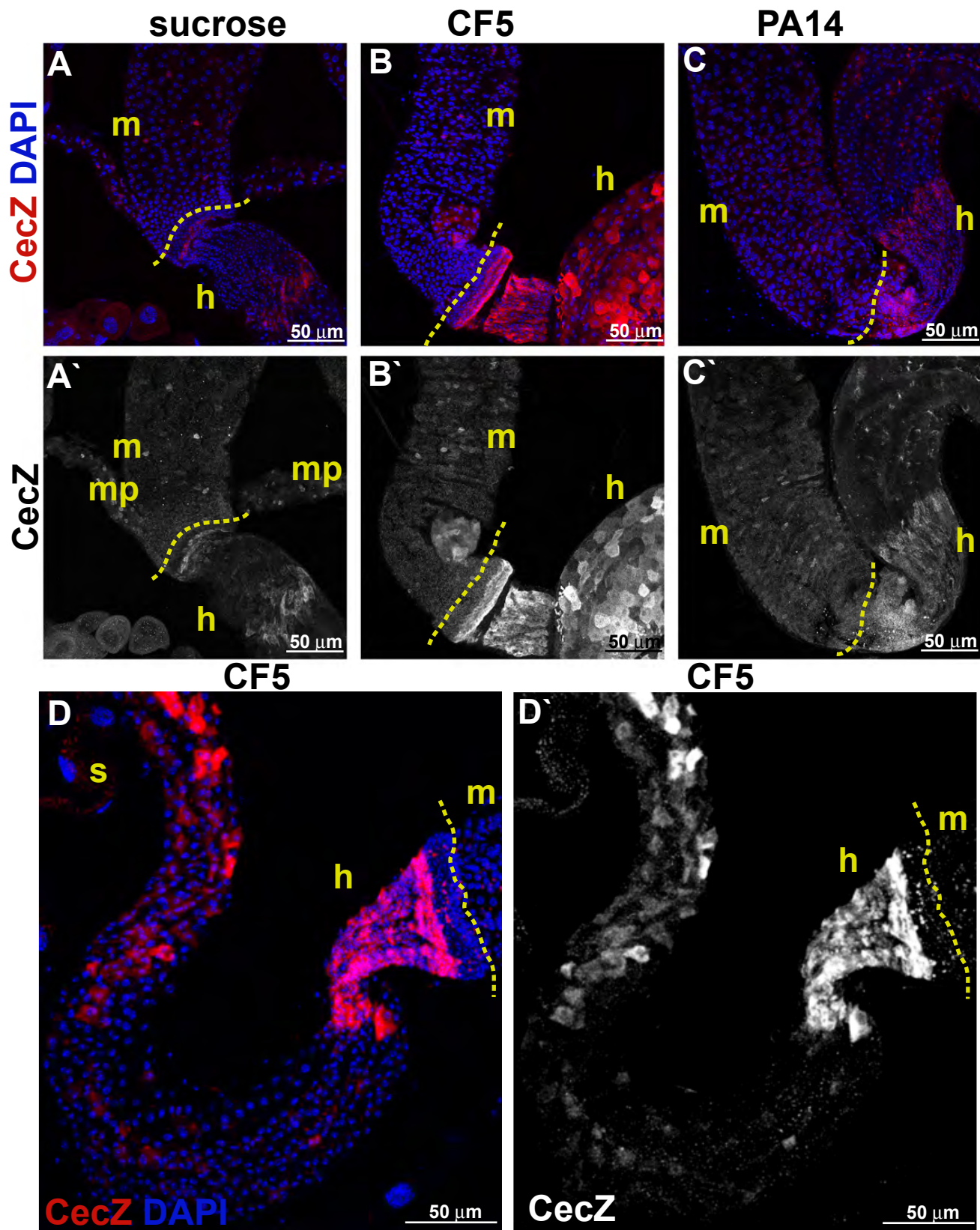
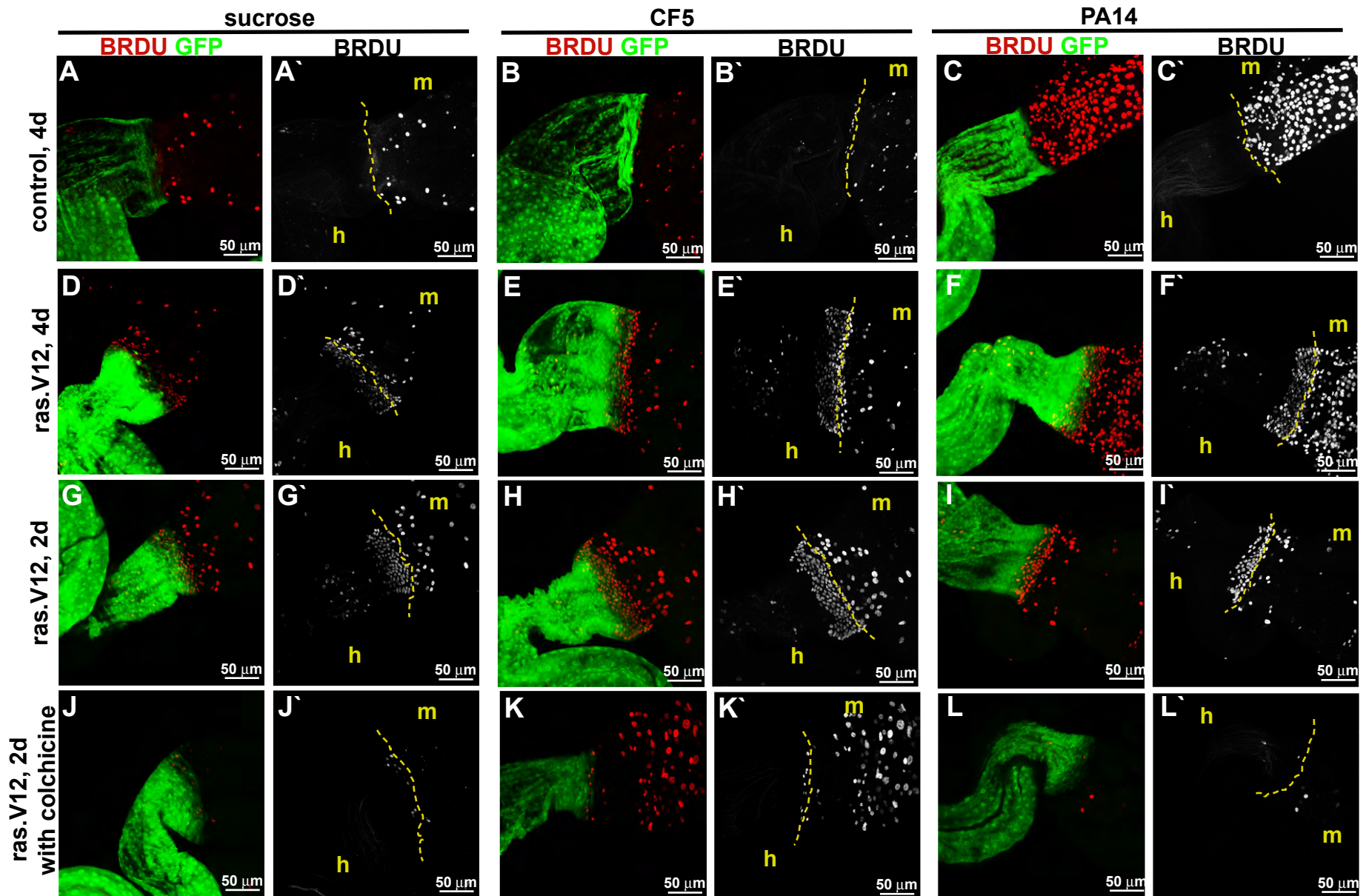


**Supplementary Figure S1. Flip out clone analysis suggests transiency in *pucZ* and *MMP1* expression.** Examples of GFP marked clones induced by placing flies of the *hs-FLP; act>FRT-FRT>GFP/UAS-Ras<sup>V12</sup>; pucZ/+* genotype for 45 min at 37°C followed by 29°C for 7 days. *pucZ* is only found in a small subset of *Ras<sup>V12</sup>* flip out cells (**A,C**) while the majority of the *Ras<sup>V12</sup>* flip out cells do not show *pucZ* or *MMP1* expression (**B**). When present, *MMP1* expression is not always cell autonomous (**D**).



**Supplementary Figure S2. Cecropin is induced strongly in the hindgut but not in the midgut upon *P. aeruginosa* infection .** CecZ reporter expression following feeding control flies on sucrose (A), CF5 (B,D) or PA14 (C) strain. CecZ expression is sporadic, at low levels and mainly uninducible by infection in the midgut. The hindgut also shows a low baseline expression anteriorly (A) but it is strongly induced throughout the hindgut by infection (B-D). m:midgut, h:hindgut, mp: malpighian tubule. Midgut/hindgut boundary is indicated by dotted yellow lines.



**Supplementary Figure S3. Infection does not induce proliferation of hindgut cells.** 4 day continuous BRDU labeling (5 mg/ml) of uninfected wildtype flies (**A**) and those infected with the avirulent (CF5) (**B**) and virulent (PA14) (**C**) strains. As reported before, PA14 induces a significant increase in BRDU labeling of the midgut (**C**) but there is no BRDU labeling of wildtype hindguts in response to infection (**A-C**). *Ras1<sup>V12</sup>* induces BRDU labeling of anterior hindguts in the absence of infection, both 2 days (**G**) and 4 days (**D**) after induction. Infection with either strain does not enhance *Ras* induced BRDU labelling 2 days (**H,I**) or 4 days (**E,F**) of induction and infection. BRDU labelled cells observed in response to *Ras1<sup>V12</sup>* are almost completely eliminated by co-feeding the mitosis inhibitor colchicine (0.2 mg/ml) both in the absence (**J**) and presence of infection (**K,L**), indicating that BRDU positive cells in these experiments arose as a result of proliferation. m:midgut, h:hindgut. Midgut/hindgut boundary is indicated by yellow dotted lines.