**Supplemental Figure 1**

**(A)** Cloning schematic to generate plasmids for gene expression using the dex system. Gateway cassettes upstream of QF-GR coding region, or downstream of the QUAS response element, allow for expression of the gene of interest using the promoter of choice. Using 5’ directional primers, PCR amplifies promoters and target genes from genomic or cDNAs. Blunt PCR fragments are TOPO-cloned into a Gateway entry vector (pEntry, Invitrogen), and the resultant clones are recombined with the appropriate destination vectors, pGM32DEST or pGM34DEST. Both constructs are subsequently injected into *unc‑119* mutant animals, and transgenic progeny that are both phenotypically wild-type and red are isolated. Finally, gene induction of the resultant transgenic lines is tested using dex. **(B)** F-Dexa labels the pharyngeal and intestinal lumens of N2 animals and *bus-8* mutants. Representative images of larvae animals incubated with increasing concentrations of F-Dexa or vehicle for two hours. White arrowheads denote lumen fluorescence from F-Dexa; the scale bars denote 20 microns. **(C)** The relative transcript levels of GFP and mCherry after 30 minutes of vehicle or 100μM dex, as measured by qRT-PCR. Bars represent the SEM from three biological replicates performed in triplicate. **(D)** *(Left)*Fluorescent micrographs depict the *eef-1A.1* promoter driving QF-GR expression in representative animals cultivated on either vehicle or 100μM dex plates for 24 hours. Hypodermal and intestinal mCherry expression is observed in both populations. The scale bar represents 20 microns. *(Right)* A time course of GFP-expression of QF-GR driven from the *eef-1A.1* promoter. Mixed-staged animals were cultivated on vehicle or 100μM dex plates, and GFP expression was scored hourly in live animals by fluorescence microscopy. The average percentage of GFP-positive expression is plotted at each time point; error bars represent the SEM of at least three independent trials. N ≥ 31 for each time point; points above the dashed line denote a significant difference from vehicle-treated animals (\*p<0.05, T-Test).