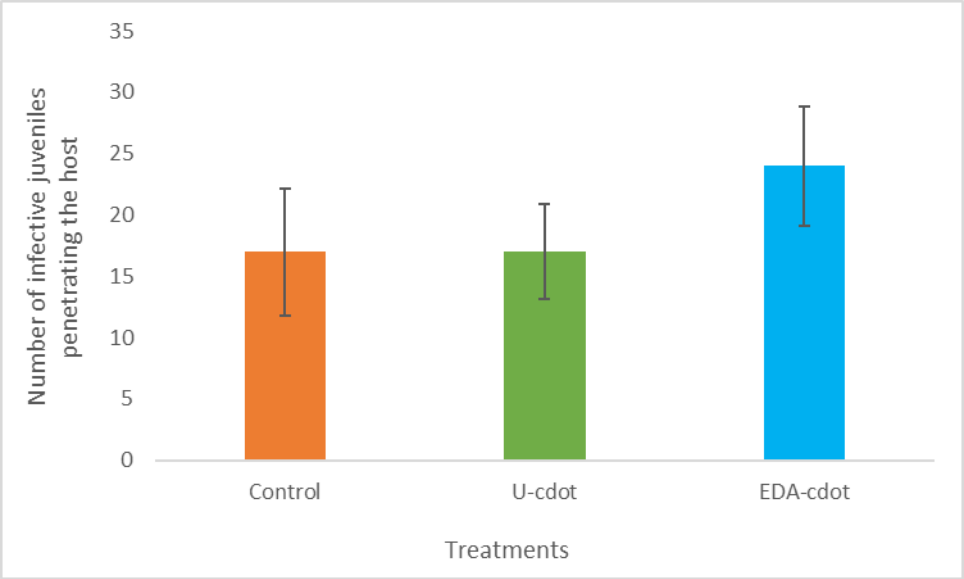
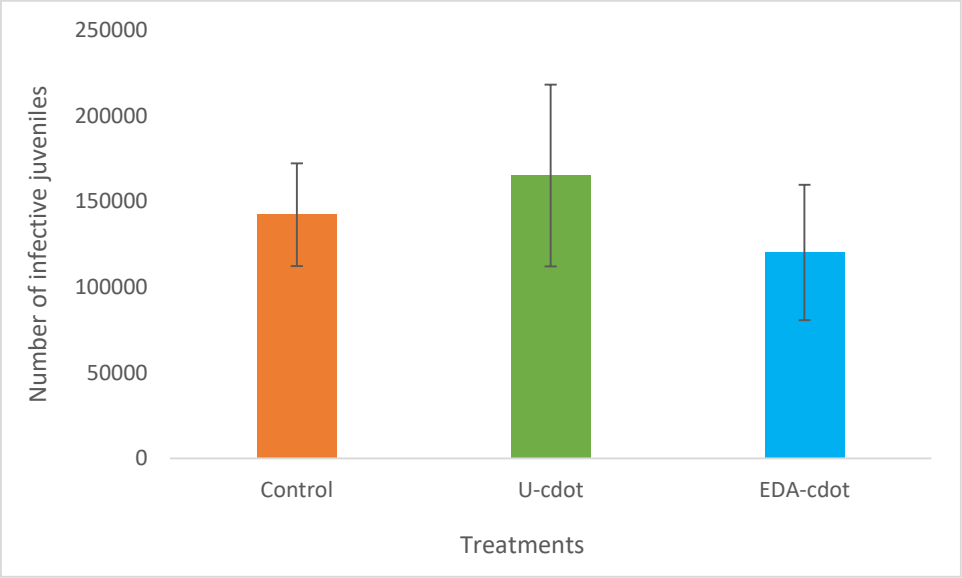
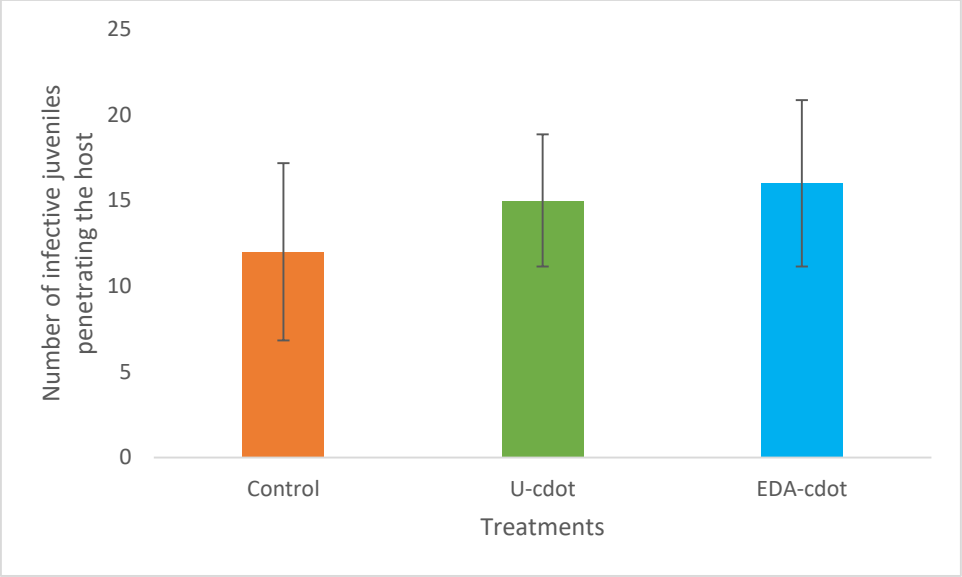
Supplementary material



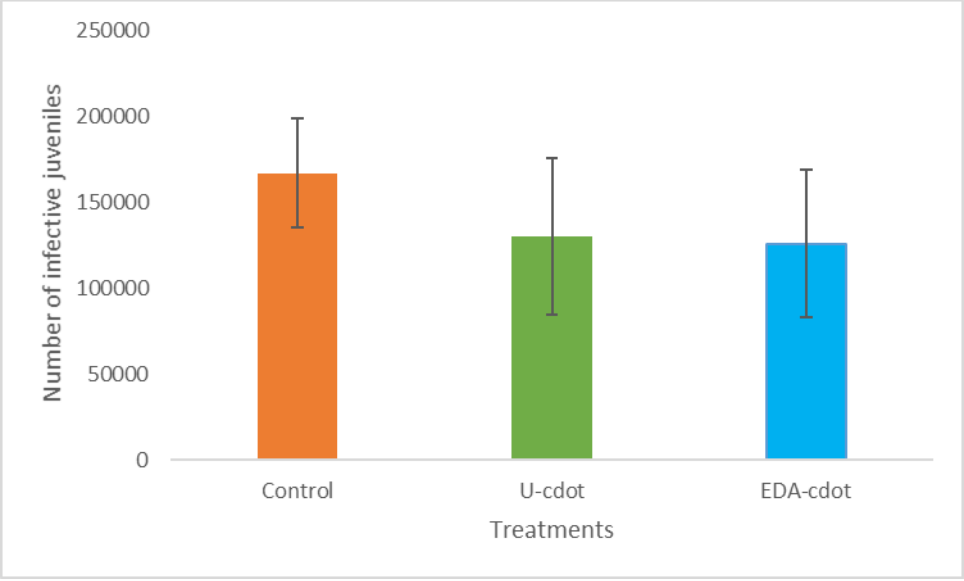
Supplementary Figure 1: number of infective juveniles (median) capable to penetrate *Galleria mellonella* larvae from an infection trial using the offspring produced by nematodes labelled with C-dots, no differences were found between treatments (Laverne´s test for medians $F_{(2,42)}$= 0.44, p = 0.65, α=0.05)



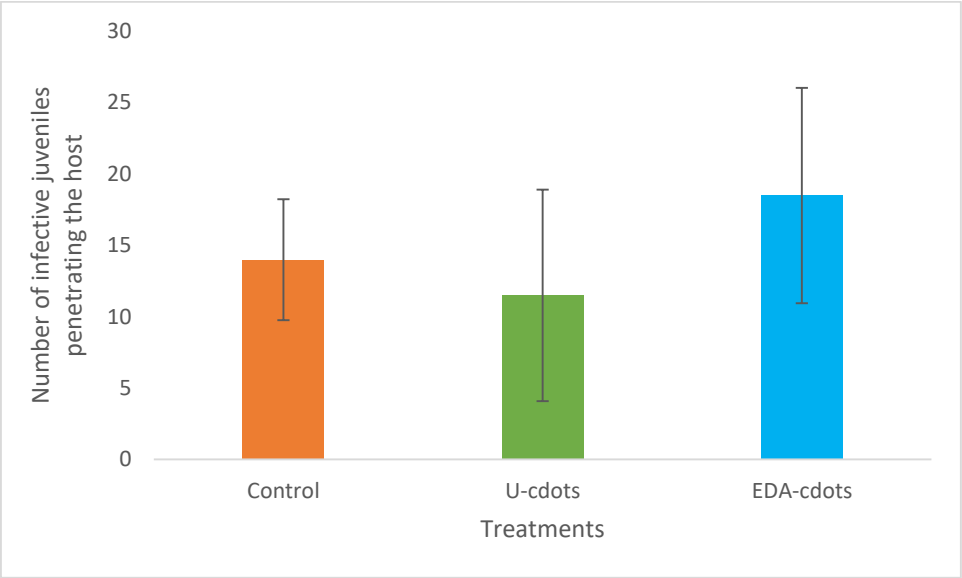
Supplementary Figure 2: number of new infective juveniles from an infection trial using the offspring produced by nematodes labelled with C-dots, no differences were found between treatments (ANOVA $F_{(2,42)}$= 0.56, p = 0.59, α=0.05)



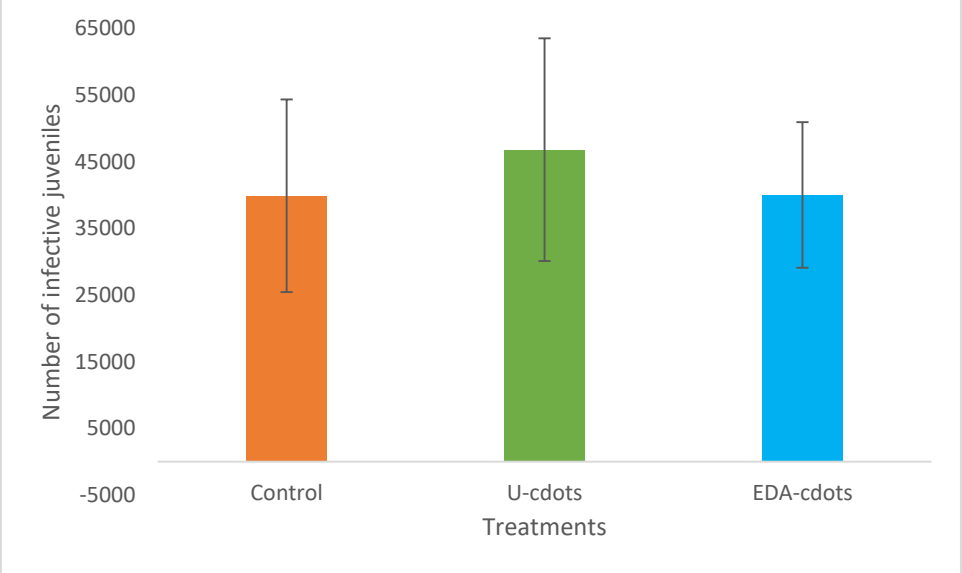
Supplementary Figure 3: number of infective juveniles (median) capable to penetrate *Galleria mellonella* larvae from an infection trial using nematodes soaked in C-dots suspension for 6 months, no differences were found between treatments (Laverne´s test for medians $F_{(2,42)}$= 0.24, p = 0.79, α=0.05)



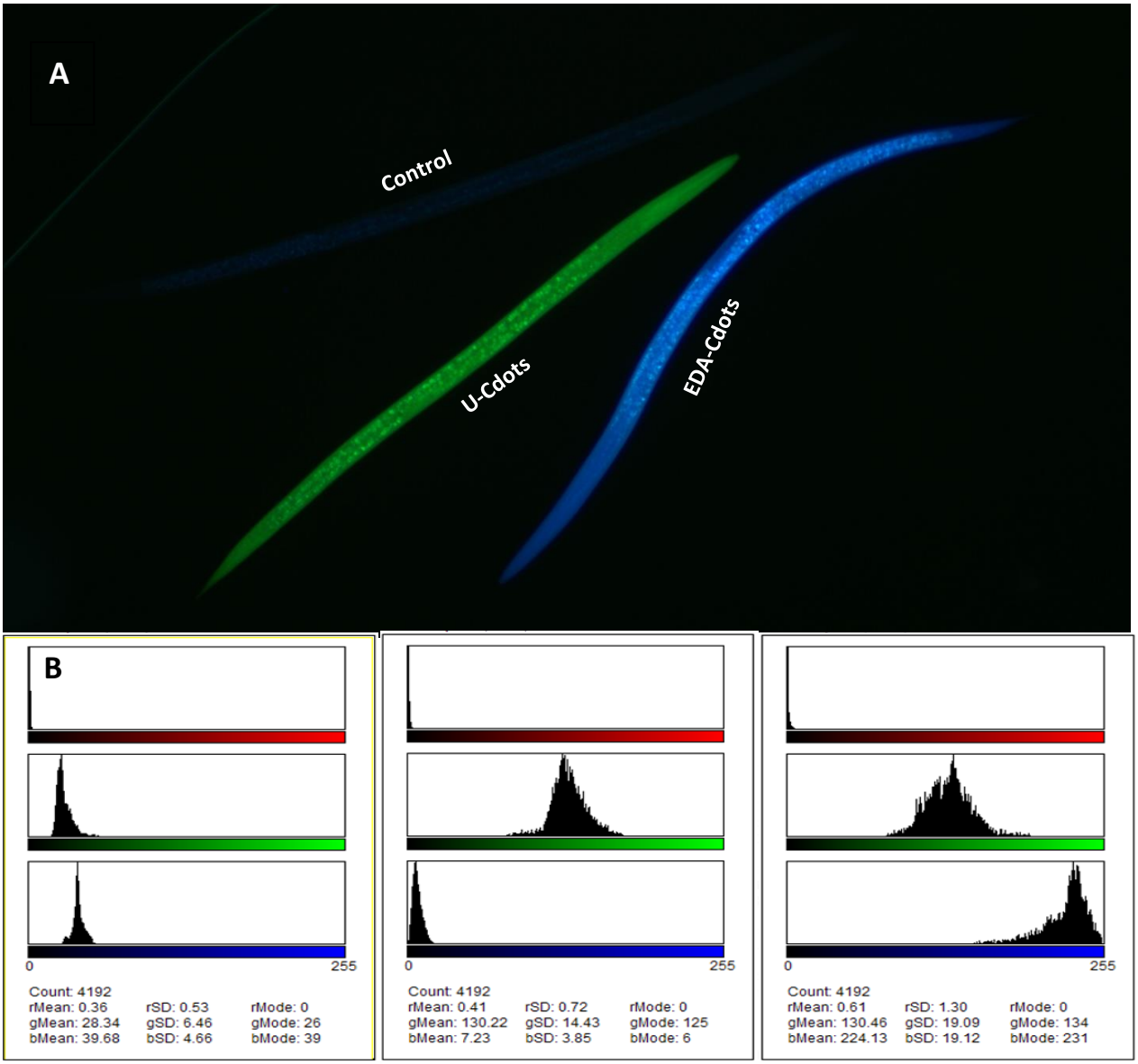
Supplementary Figure 4: number of new infective juveniles from an infection trial using nematodes soaked in C-dots solution for 6 months, no differences were found between treatments (ANOVA $F_{(2,42)}$= 1.86, p = 0.17, α=0.05)



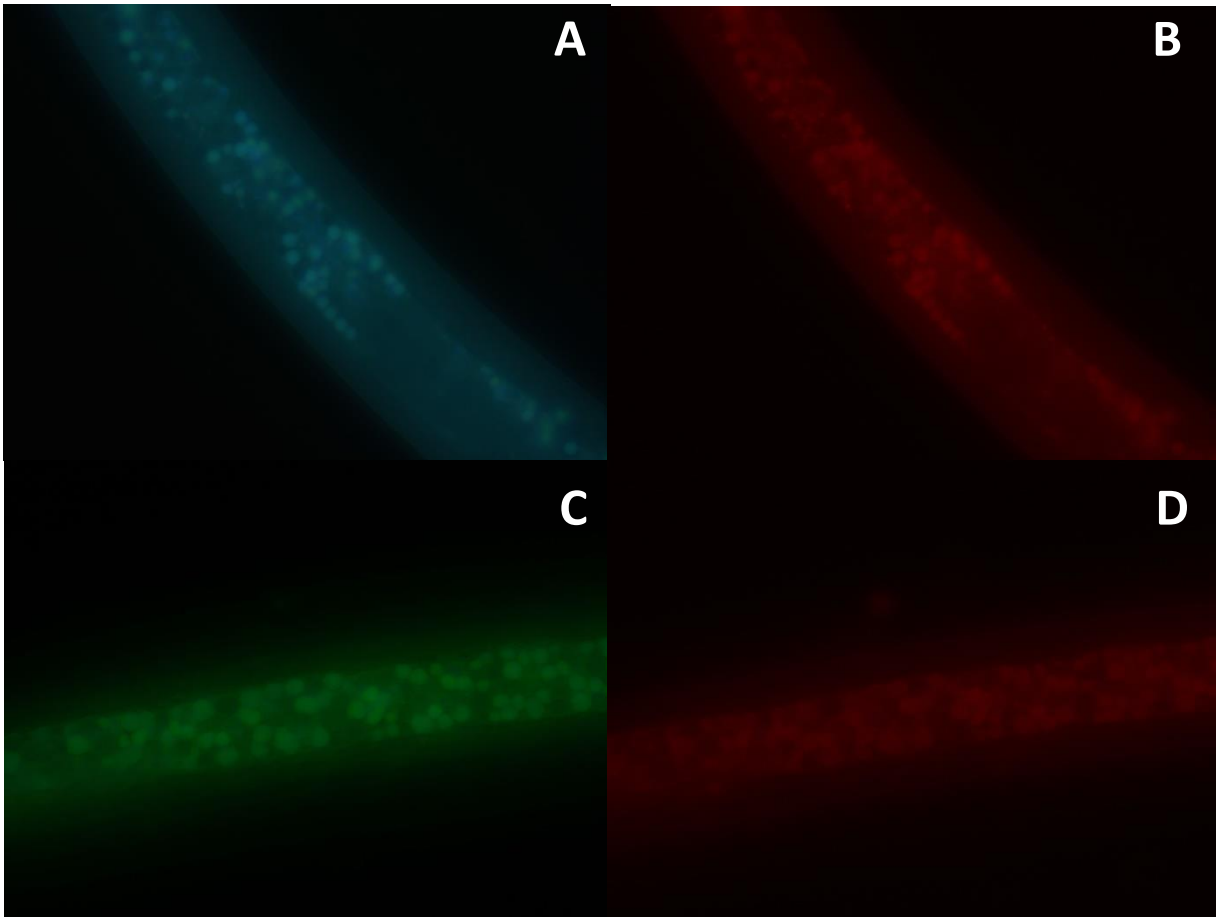
Supplementary Figure 5: number of infective juveniles (median) capable to penetrate *Galleria mellonella* larvae from an infection trial using nematodes soaked in C-dots suspension for 12 months, no differences were found between treatments (Laverne´s test for medians $F_{(2,42)}$= 0.35, p = 0.71, α=0.05)



Supplementary Figure 6: number of new infective juveniles from an infection trial using nematodes soaked in C-dots solution for 12 months, no differences were found between treatments (ANOVA $F_{(2,42)}$= 0.37, p = 0.7, α=0.05)



Supplementary Figure 7: A) Infective juveniles of *Steinernema feltiae* from the three treatments in the same glass slide **B)** RGB colour composition (histograms) of the infective juveniles of *Steinernema feltiae* from control (left panel), U-Cdots (central panel) and EDA-Cdots (right panel)



Supplementary Figure 8: Raw pictures of the colocalization of C-dots and Lysotracker™ deep red in the lysosome-related organelles of infective juveniles of *Steinernema feltiae* A) Strain UOH-010 labelled with EDA-Cdots under UV light or B) green filter (Texas red), C) Strain UOH-011 labelled with U-Cdots under UV light or D) green filter (Texas red). All pictures are under 1000X of magnification.