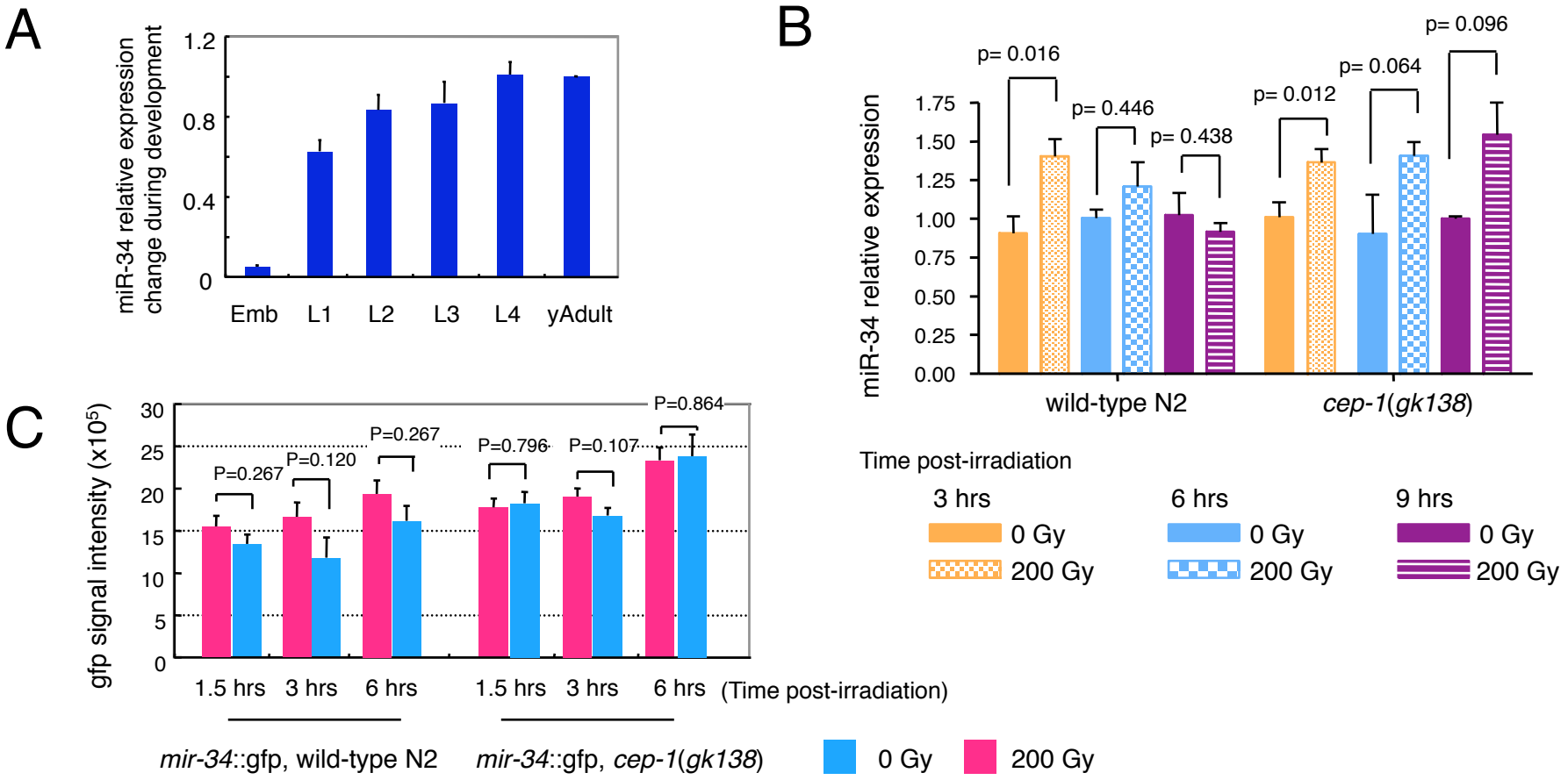


**Supplementary Information 1. Further analysis of miR-34 expression in *C. elegans*.** (A) Changes in expression of miR-34 during development of hermaphrodites. 2ng/$\mu$l of total RNAs were used for quantitative RT-PCR with TaqMan Small RNA Assay (Applied Biosystems). The data were standardized to the expression level in the young adult sample as 1. (B) miR-34 relative expression post-irradiation with 200 Gy. miR-34 level significantly rose at 3 hrs post-irradiation and seemed to return to baseline at around 6 to 9 hrs post-irradiation in wild-type N2, although it might be slower to return to baseline in the *cep-1* loss-of-function mutant. It is clear from all these results that *cep-1* function is not required for induction of miR-34 post-irradiation. (C) *mir-34*promoter::gfp expression in *C. elegans* post-irradiation. Images were obtained under the same condition and *gfp* signal intensity was independently calculated from 11~15 worms of each line at each time point. Error bars represent standard error. GFP signals tended to increase post-irradiation, similar to the levels of miRNA detected by PCR, although this was not statistically significance. One explanation is that GFP is less sensitive to changes over the short time we examined the animals. We further confirmed that the loss of *cep-1* function did not affect miR-34 expression level on *cep-1* RNAi using both RT-PCR and *mir-34*promoter::gfp lines (data not shown).