

## **Expanded CCUG repeat RNA expression in *Drosophila* heart and muscle trigger Myotonic Dystrophy type 1-like phenotypes and activate autophagocytosis genes.**

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### **Supplementary Information**

**Fig S1: Expression levels of the indicated constructs in muscle (A) and cardiac tissues (B) relative to the expression of the line expressing CUG(250)x.** qPCR to detect the expression of the common terminator SV40 showed that the expression of expanded CCUG repeats in muscle was 3-fold higher than the expanded CTG repeats. However, in heart, the expression levels of all four transgenes were similar. \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$  (Student's t-test).

**Fig S2: Flies expressing short CUG or CCUG repeats have no ribonuclear foci containing Muscleblind.** Representative fluorescent confocal images of muscle (A-F) and heart cells (G-L) from flies expressing short CUG (A-C and G-I) or CCUG (D-F and J-L) repeats. Muscleblind was found in sarcomeric bands in muscles and dispersed in the nuclei of heart cells expressing short CUG or CCUG repeats and ribonuclear foci were not detected. Merged images in C, F, I and L include DAPI (blue) counterstaining of the nuclei. Scale bar = 10  $\mu\text{m}$ .

Fig. S1

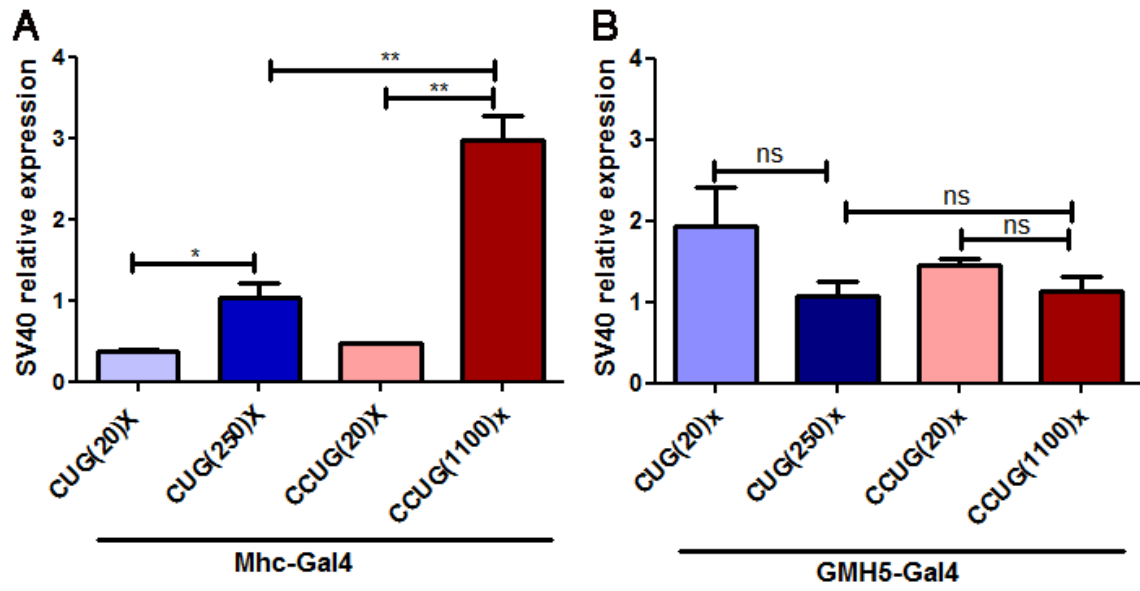
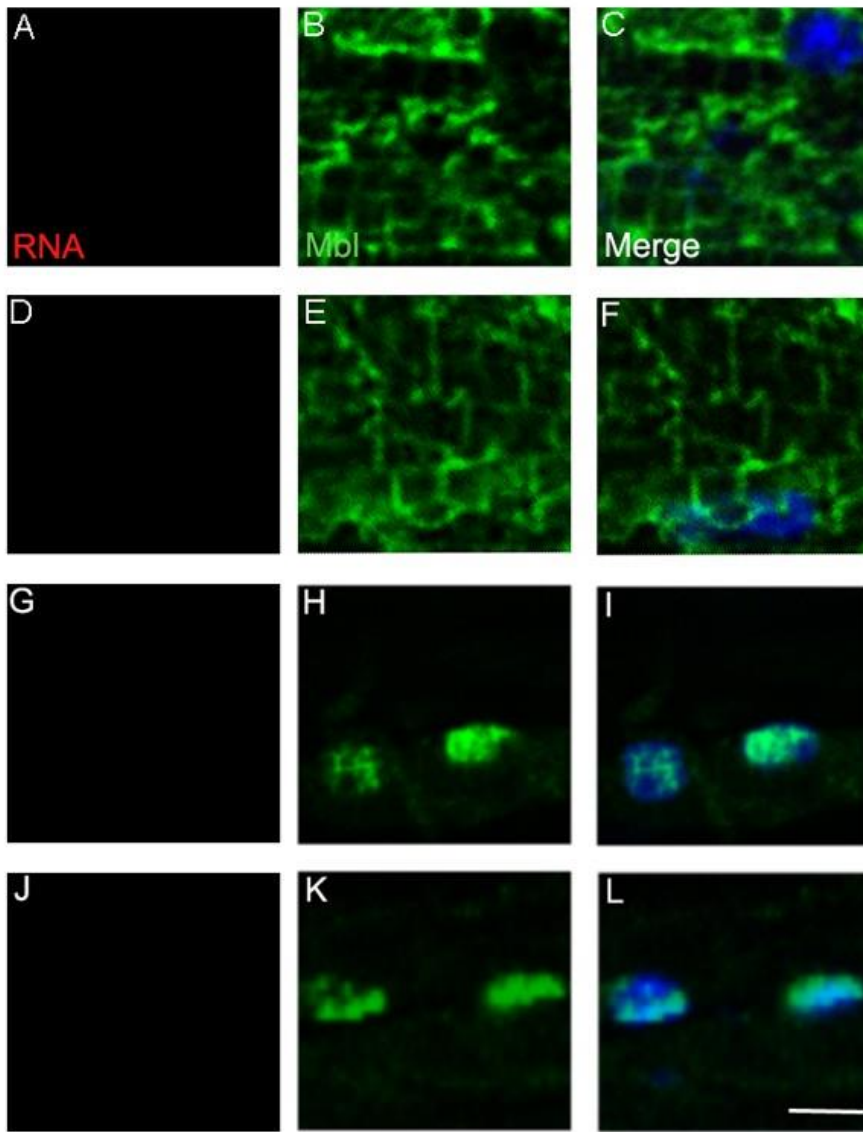


Fig. S2



**Table S1. Oligonucleotide sequences**

<b>Primer</b>	<b>Sequence (5' → 3')</b>	<b>qRT-PCR/RT-PCR</b>
<i>Atg4 fwd</i>	GCGCTCTTCGAGATCAGTCA	qRT-PCR
<i>Atg4 rev</i>	CCTGCCGCTCTTTCAACTA	qRT-PCR
<i>Atg7 fwd</i>	CATAGCCTGTTTCAGCGGCCGT	qRT-PCR
<i>Atg7 rev</i>	CCGCTTGAATTCGGAGATTCCCGTC	qRT-PCR
<i>Atg8a fwd</i>	ATCCAGACCGTGTGCCCGTCAT	qRT-PCR
<i>Atg8a rev</i>	ACCGACGGTCAGGTCGGAAGG	qRT-PCR
<i>Atg9 fwd</i>	CCACATCGAGGACCTTGACTC	qRT-PCR
<i>Atg9 rev</i>	CCACTACAATCACTGTGAATCCG	qRT-PCR
<i>Atg12 fwd</i>	TCGATGCCAGCGAGCAAATTTTCCT	qRT-PCR
<i>Atg12rev</i>	GCCCCACGCCTGATTCTTGCA	qRT-PCR
<i>Serca fwd</i>	GCAGATGTTTCCTGATGTTCG	qRT-PCR
<i>Serca rev</i>	CGTCCTCCTTCACATTCAC	qRT-PCR
<i>Rp49 fwd</i>	GGATCGATATGCTAAGCTGTTCGCACA	qRT-PCR/ RT-PCR
<i>Rp49 rev</i>	GGTGCGCTTGTTTCGATCCGTAACC	qRT-PCR/ RT-PCR
<i>Fhos fwd</i>	GTCATGGAGTCGAGCAGTGA	RT-PCR
<i>Fhos rev</i>	TGTGATGCGGGTATCTACGA	RT-PCR