

Article

Conservation of Zebrafish MicroRNA-145 and its Role during Neural Crest Cell Development.

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Supplementary Materials

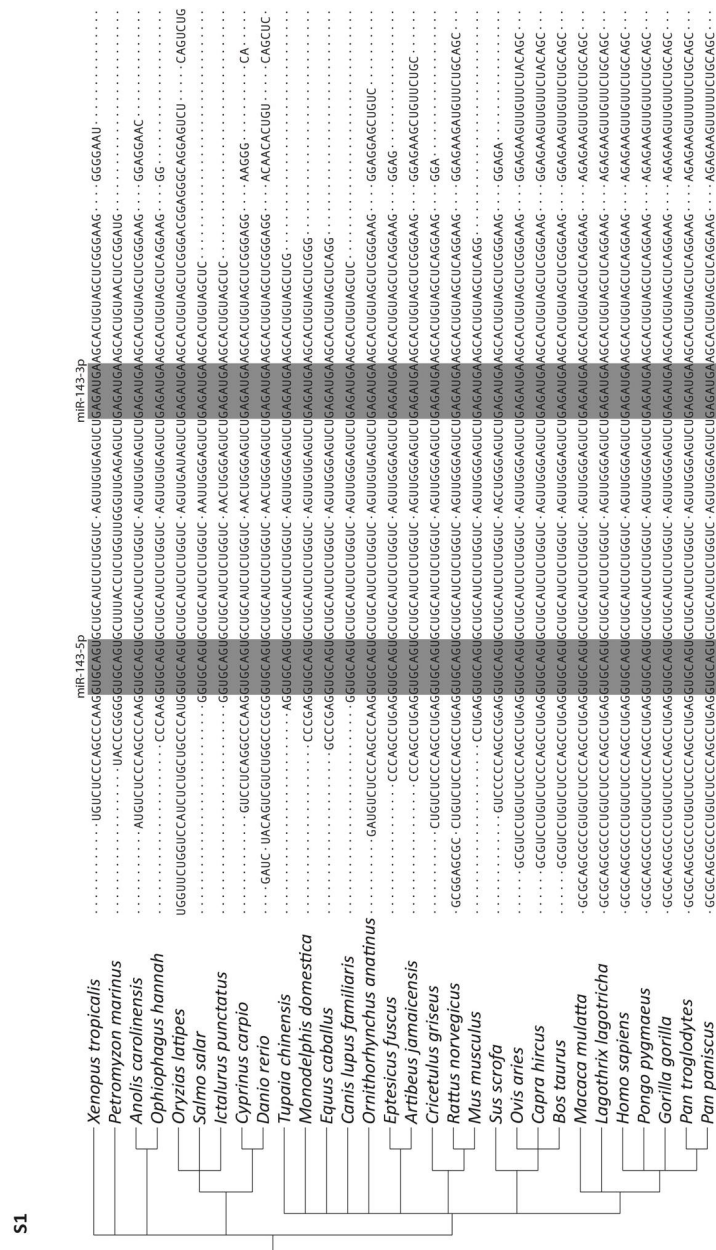


Figure S1. Conservation of miR-143 across vertebrate species. Sequence alignment of pre-miR-143 of 30 vertebrate species using Clustal Omega, with taxonomic tree on the left and hairpin sequence on the right. Asterisks represent 100% conserved bases and enclosed in gray rectangles are the seed sequences for miR143-5p and miR143-3p.

Figure S2. Conservation of miR-145 across vertebrate species. Sequence alignment of pre-miR-145 of 25 vertebrate species using Clustal Omega, with taxonomic tree on the left and hairpin sequence on the right. Asterisks represent 100% conserved bases and enclosed in gray rectangles are the seed sequences for miR145-5p.

S3

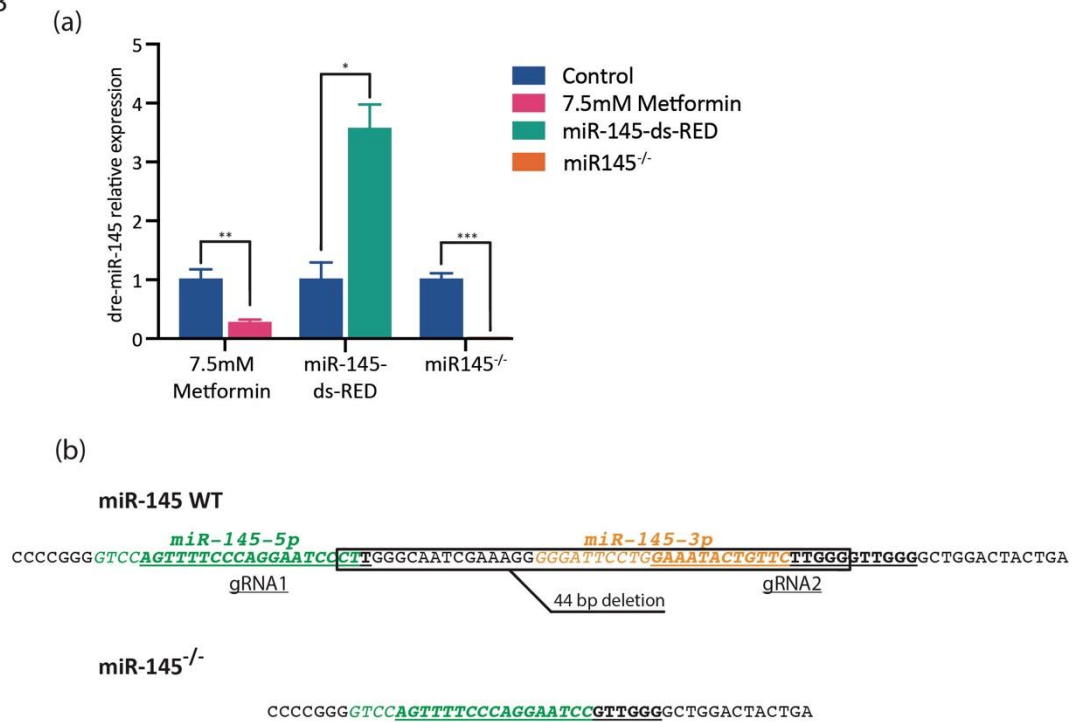


Figure S3. Measurement of miR-145 levels in 24 hpf treated embryos. A: Effects of metformin treatment and miR-145-dsRED microinjection on miR-145 expression levels. (\pm SEM, $n=3$, two-tailed t-Student test, $*P=0.0026$, $**P=0.0006$, $***P<0.0001$). B: Schematic representation of miR-145 genomic wild-type sequence (top) and CRISPR/Cas9 mutant sequence (bottom). Mature mir-145-5p and -3p in green and orange respectively, gRNA sequences underlined.

S4

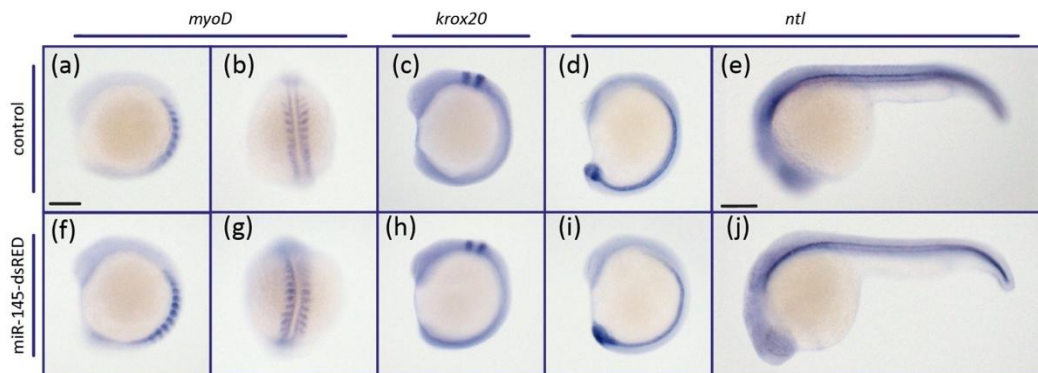


Figure S4. Effects of miR-145 in the expression of different marker genes. Whole-mount *in situ* hybridization of *myoD* (a, b, f, g), *kroX20* (c, h), and *ntl* (d, i) performed on 13 hpf miR-145-dsRED or control-dsRED microinjected embryos. Lateral views are dorsal to right (a, c, d, f, h, i); dorsal views are anterior to top (b, g). Whole-mount *in situ* hybridization of *ntl* in control-dsRED (e) or MIR-145-dsRED (j) microinjected specimens at 24 hpf, lateral views are head to left. Scale bar 200 μ m in (a) for (a-d, f-i) and in (e) for (e, j).