





Figure S2. Supporting data figure for generation and characterization of AzFRS/tRNA transgenic zebrafish. (A) Toxicity test of various concentrations of AzF delivered via different strategies to zebrafish embryos. (a-c) Toxicity test of AzF in wild type zebrafish embryos. AzF was either injected at one cell stage (a), or (b) diluted in water bath of dechorionated embryos, or (c) diluted in water bath of intact embryos. Toxicity test of AzF which is diluted in water to treat intact AzFRS/tRNA transgenic zebrafish embryos (d). For each condition axis malformation (blue), death (red) and wild type phenotype (green) were quantified at 24 hpf. For further experiments

non-dechorionated embryos were incubated in 2.5 mM AzF. (B) eGFP positive nuclei were counted in F2 transgenic embryos incubated in the presence or absence of 2.5 mM AzF. (C) F2-F3 generation of transgenic one-cell stage zebrafish embryo were injected with the mRNA encoding mCherry-eGFP(Y145amb) reporter genes. The embryos were incubated in water with or without 2.5 mM AzF for 24 hours. The fluorescence images of tissues as indicated were photographed. Scale bar, 50  $\mu$ m.