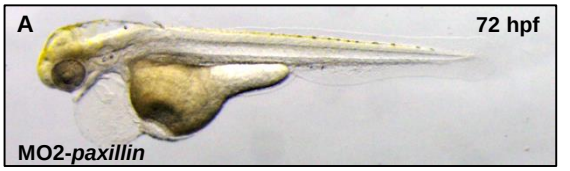
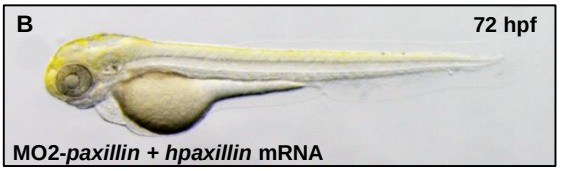
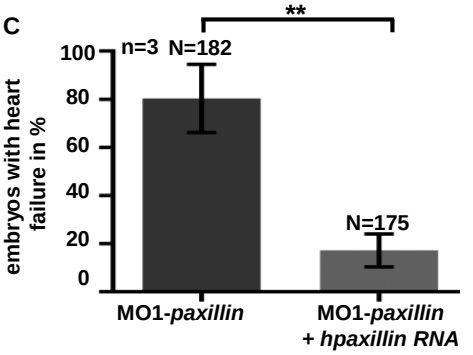
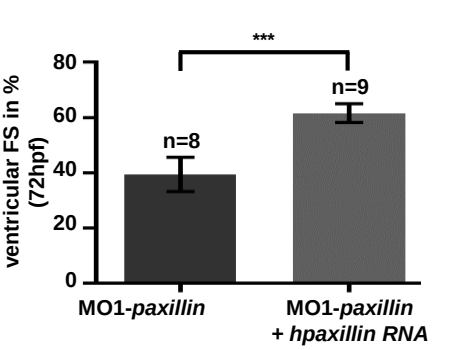
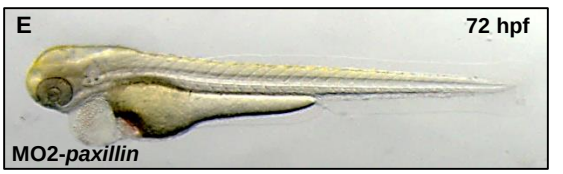

A
72 hpf
MO2-*paxillin*

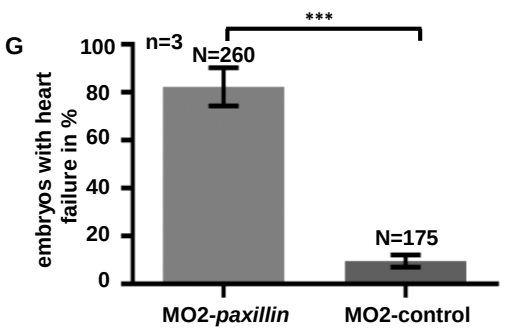

B
72 hpf
MO2-*paxillin* + *hpaxillin* mRNA

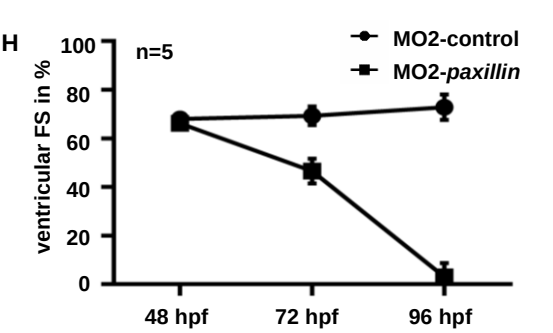

C
**
n=3 N=182
N=175
embryos with heart failure in %
100
80
60
40
20
0
MO1-*paxillin*
MO1-*paxillin* + *hpaxillin RNA*

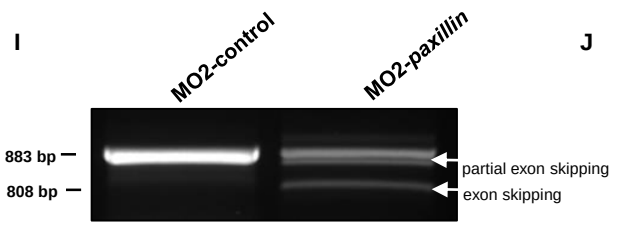

D
***
n=8
n=9
ventricular FS in % (72hpf)
80
60
40
20
0
MO1-*paxillin*
MO1-*paxillin* + *hpaxillin RNA*

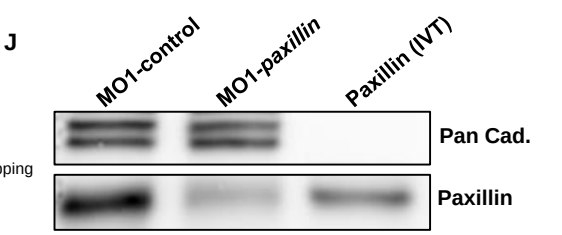

E
72 hpf
MO2-*paxillin*


F
72 hpf
MO2-*control*


G
***
n=3
N=260
N=175
embryos with heart failure in %
100
80
60
40
20
0
MO2-*paxillin*
MO2-control


H
n=5
MO2-control
MO2-*paxillin*
ventricular FS in %
100
80
60
40
20
0
48 hpf
72 hpf
96 hpf


I
MO2-control
MO2-*paxillin*
883 bp
808 bp
partial exon skipping
exon skipping


J
MO1-control
MO1-*paxillin*
Paxillin (IVT)
Pan Cad.
Paxillin

S2 Fig. Injection of human *paxillin* mRNA rescues the cardiac phenotype of MO1-Paxillin morphants. (A-C) Lateral view of MO1-*paxillin* (A) and MO1-*paxillin*+human *paxillin* mRNA (B) injected embryos at 72 hpf. (C) Bar graphs compare average of rescued embryos after co-injection of human *paxillin* mRNA compared to MO1-*paxillin* injected embryos (n=3; **P*=0.0073). **(D)** Fractional shortening (FS) measurement of rescued embryos compared to Paxillin morphant embryos at 72 hpf (n=5). **(E, F)** Lateral view of a (E) 5bp-mismatch MO (MO2-control) and (F) MO2-*paxillin* splice MO injected embryos at 72 hpf. The heart failure phenotype of MO2-*paxillin* splice morphants was identical to that of embryos injected with translation blocking *paxillin* MO (MO1-*paxillin*). **(G)** Bar graphs compare average of affected embryos after injection of MO2-*paxillin* compared to 5bp-mismatch MO (MO2-control) injected embryos at 72 hpf (n=3; **P*=0.0001). **(H)** FS measurements of Paxillin morphant ventricles at 48, 72 and 96 hpf (n=5 individuals per time point). **(I)** RT-PCR of control- and MO2-*paxillin*-injected embryos. Injection of MO2-*paxillin* caused partial and whole skipping of exon 2 (298 bp) leading to premature termination of Paxillin protein translation. Wild-type *paxillin* RNA was severely reduced in Paxillin morphants (527 bp product). **(J)** Western blot analysis of control- (MO1-control) and MO1-*paxillin*-injected embryos demonstrated high efficacy of MO-mediated *paxillin* gene knock-down. For each sample 50 embryos were pooled and 20 µg of protein lysate were loaded per lane. *In vitro* translated (IVT) zebrafish Paxillin protein was used as positive control.