Supplemental Table 1. Phenotypic analysis of gross morphological abnormalities in FAK morphant embryos.

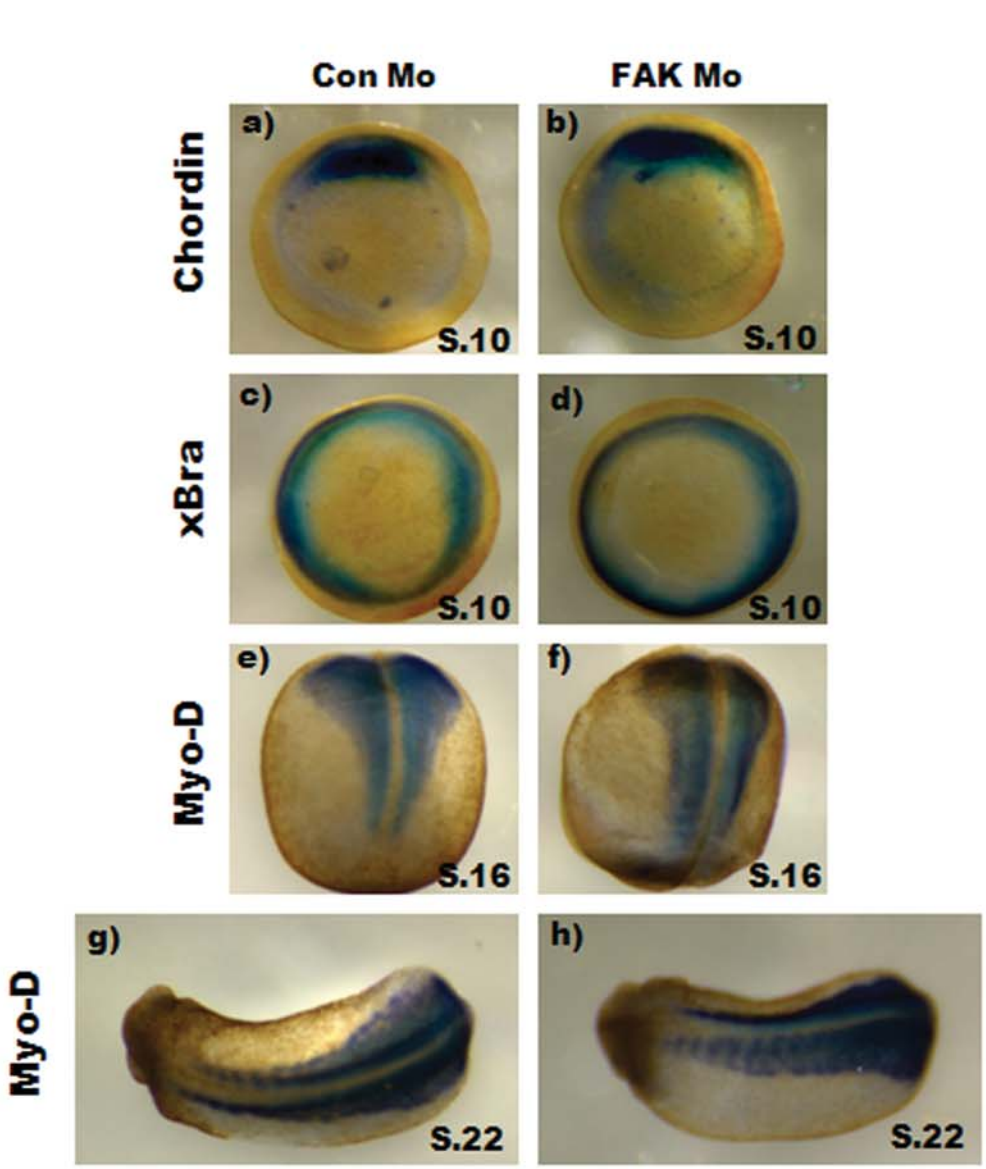
	Total # Embryos	A/P axis defects (% of total)	Anterior Defects (% of total)
Con Mo	**174**	**5 (3%)**	**3 (2%)**
FAK Mo	**191**	**22 (12%)**	**16 (8%)**

Supplemental Table 1. Phenotypic analysis of gross morphological abnormalities in FAK morphant embryos. Embryos exhibiting truncated or bent anteroposterior body axis (A/P axis defects) or anterior defects (such as small head) were scored between stages 27-30 in at least three separate experiments and aggregate totals for each phenotype are reported. As noted in the text, these embryos (and embryos exhibiting developmental arrest prior to stage 30) were not utilized for later analysis of heart development.

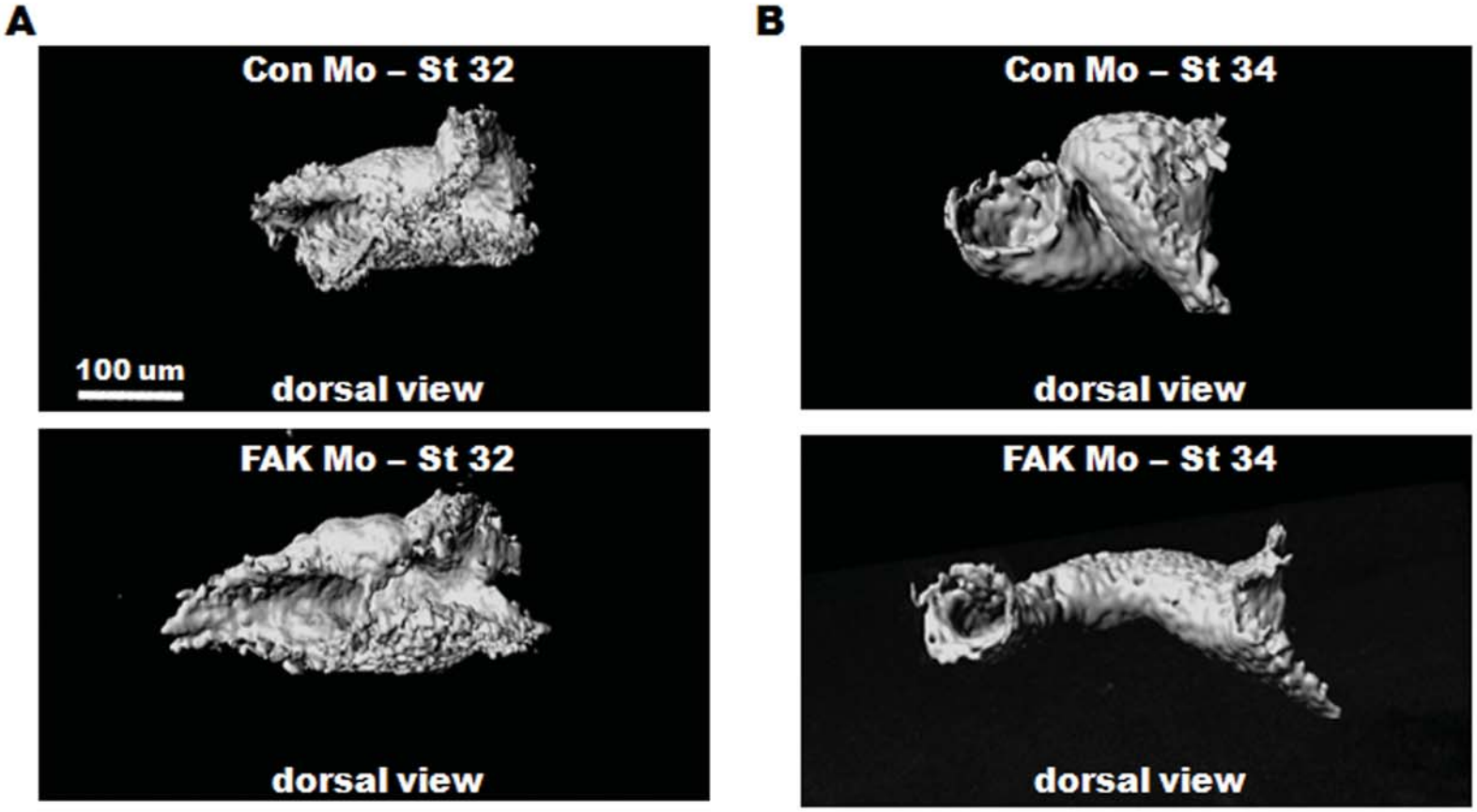
Supplemental Figure 1. Gastrulation and neurulation proceed normally in FAK morphant embryos. *In situ* hybridization analysis for chordin (a, b) and brachyury (xBra) (c, d) were performed at stage 10. Views for a-d are vegetal with dorsal to the top. Myo-D *in situ* hybridization was performed at stage 16 (e, f – dorsal view) and stage 22 (g, h – dorsal view with anterior to the left).

Supplemental Figure 2. Isosurfacing of Con Mo and FAK Mo hearts revealed a delay in closure of the heart tube at the dorsal surface at stage 32 but not 34. A) Dorsal view of isosurfaced and 3-D rendered images from stage 32 hearts (anterior is to the top). Note that FAK morphant hearts have only begun to close at the dorsal aspect of the heart tube, while controls have undergone complete closure. B) By stage 34, closure of the heart tube is complete (dorsal view).

Supplemental Figure 3. FAK deficiency does not alter myocyte survival. Whole mount immunohistochemical staining for tropomyosin and cleaved caspase 3 was performed on pre-looped (stage 32) embryos that were injected with either Con Mo (left) or FAK Mo (right) at the one-cell stage. Total number of cleaved caspase 3- positive myocytes per unit area of myocardium were counted as described in figure 5 (3 embryos for each condition were analyzed in three separate experiments).

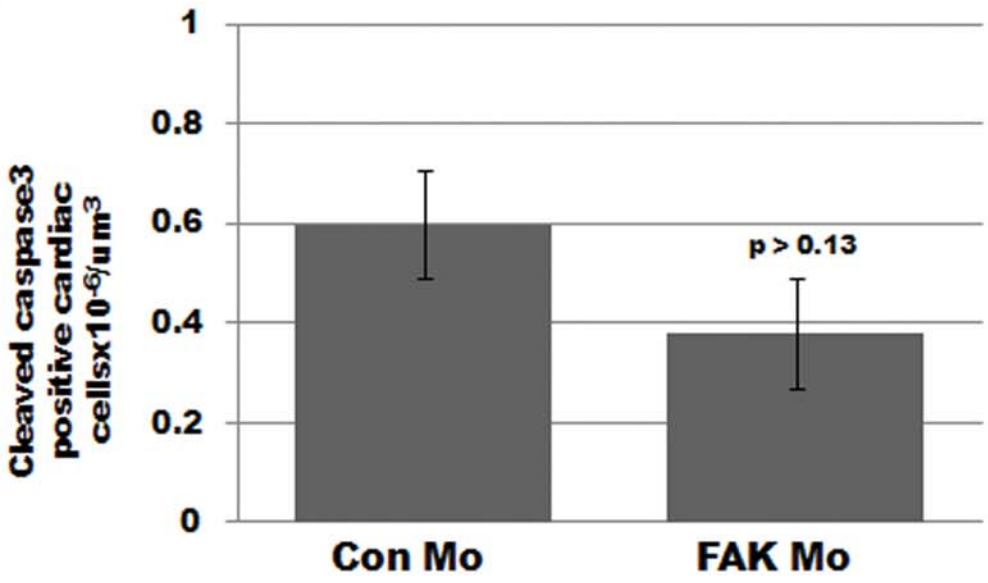


Supplemental Figure 1 – Doherty, et al.



Supplemental Figure 2 – Doherty, et al.

A



Supplemental Figure 3 – Doherty, et al.