

# Zebrafish, *C. elegans* and Polycystic Kidney Disease: Identifying potential disease biomarkers through comparative analysis.

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Zebrafish homozygous for *spinner* develop kidney cysts, abnormal otoliths, and ventral body curvature in addition to having a number of cilia defects. Our current research aims to elucidate the molecular nature of *spinner* using a combined approach of mapping, whole genome sequencing and targeted gene editing. In addition, we are using the *spinner* mutants as a tool to try to identify potential biomarkers of cystic kidneys. We conducted deep RNA sequencing of mutant and sibling wild-type zebrafish larvae and have also identified a number of PKD-2 ciliary localization factors in *C. elegans*. We will report our progress analyzing these rich datasets.