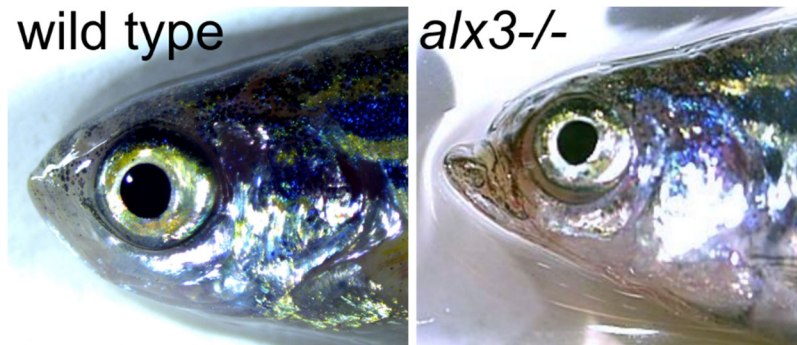




## ***Embryonic and Postembryonic Mechanisms of Frontonasal Development***



Frontonasal Dysplasia is a group of midfacial disorders associated with pathogenic variants in the ALX transcription factor encoding genes. Using zebrafish to understand these disorders, I found that at embryonic stages, these genes are enriched in frontonasal neural crest cells, the stem cells giving rise to midfacial structures. Functional experiments suggest that these genes are required for proper midfacial patterning. At postembryonic stages, Alx3 is also required for the proper development of midfacial bone. My research program will elucidate the gene regulatory network surrounding alx and unlock the connections between embryonic and postembryonic midfacial development programs to understand these disorders.

### **Jennyfer Mitchell, PhD**

Postdoctoral Researcher, University of Colorado, Anschutz Medical Campus  
**Candidate for Assistant Professor, Molecular Biology & Genetics**

**Date:** Tuesday May 21, 2024  
**Time:** 10:00 a.m.  
**Location:** Red Seminar Room Donnelly CCBR

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**Host:** Timothy R. Hughes, PhD