# Molecular Mechanisms of Spontaneous CNS Axon Regeneration

## November 19

### Tuesday, 12:30 pm

**Billings Building—Rosedale Room**

***SPEAKER:***


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**Host: Vibhu Sahni, Ph.D.**


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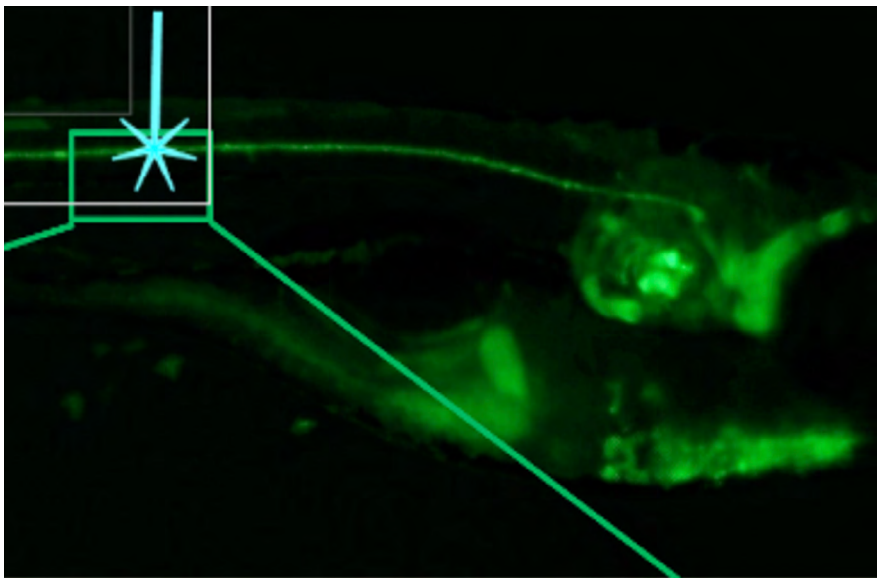
## Abstract


In contrast to most mammals, zebrafish have retained a remarkable capacity for spontaneous CNS regeneration. combined with its optical transparency This provides an unique opportunity to complement studies in mammalian systems that focus on overcoming inhibitory mechanisms with studies to identify mechanisms that promote regrowth of injured CNS axons without the confounds of inhibitory mechanisms. I will discuss progress on neuron intrinsic and extrinsic ie glia derived signals that promote axon regeneration in the vertebrate CNS.

### *Publications*


1. Bremer J, Marsden KC, Miller A, Granato M. (2019). The ubiquitin ligase PHR promotes directional regrowth of spinal zebrafish axons. Commun Biology 2:15.

2. Walker, L. J., Guevara, C., Kawakami, K., Granato M. Target-selective vertebrate motor axon regeneration depends on interactions with glia cells at a peripheral nerve plexus. (2023).PLoS Biol. 17;21(8):e3002223. PMID375 90333.

3. Isaacman-Beck, J., Schneider, V., Franzini-Armstrong, C, Granato, M. 2015. The Ih3 glycosyltransferase directs target-selective peripheral nerve regeneration. Neuron, (88) 1-13.