Mechanisms of Neuronal Injury and Stress Response

March 28

Tuesday, 12:30 pm

Billings Building—Rosedale Room and Zoom

SPEAKER:

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Host: Vibhu Sahni, Ph.D.

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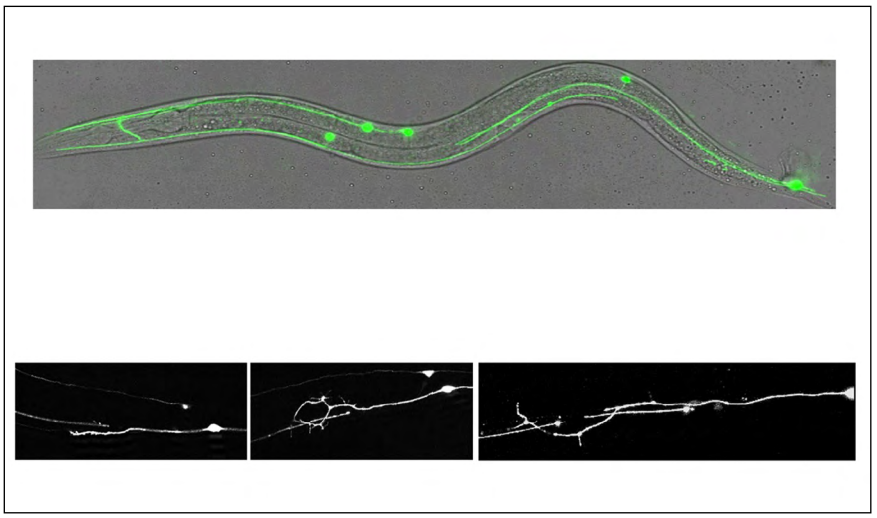
Abstract

Using single axon injury assay in C. elegans, we systematically screened the function of >1500 C. elegans genes and identified numerous axon regeneration pathways. Among them, we have elucidated signaling pathways for the DLK-1 MAP kinase. In this talk, I will describe the findings and strategies to understand the context specificity of MAP kinase mediated signal transduction mechanisms.



Publications:

1. Chen, L., Wang, Z., Ghosh-Roy, A., Hubert, T., Yan, D., O'Rourke, S., Bowerman, B., Wu, Z., Jin. Y*., and Chisholm A.D.*. (2011). *Axon regeneration pathways identified by systematic genetic screening in C. elegans. Neuron* 71:1043-57. PMC3183436.

2. Kim, K. W., Tang, N. H., Piggott, C., Andrusiak, M., Park, S., Zhu, M., Kurup, N., Cherra, S., Wu, Z., Chisholm, A.D. and Jin, Y. (2018). *Expanded genetic screening in C. elegans identifies new regulators and an inhibitory role for NAD+ in axon regeneration.* eLife, Nov 21;7. pii: e39756. doi: 10.7554/eLife.39756. PMID:30461420. PMC62813183.

3. Andrusiak, M.G., Sharifnia, P., Lyu, X., Wang, Z., Dickey, A. M., Wu, Z., Chisholm A. D., and Jin, Y. (2019). *Inhibition of axon regeneration by liquid-like TIAR-2 granules.* Neuron, 104:290-304. PMC6813885