



Neuroscience data talk

Gap junction proteins and their molecular crew: Insights from *C. elegans*

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Host:

Electrical synapses are often regarded as simple structures formed by channels called gap junctions. Compared to the chemical synapse that has been extensively studied and characterized, the molecular composition of electrical synapses is far less understood. Much of what is known comes from heterologous studies of the gap junction proteins on cell culture models while in vivo studies are sparse due to the complexity of the system, technical limitations and investigator bias. We aim to understand the in vivo biology of gap junctions using *C. elegans* as a model. To lay the groundwork for studying electrical synapses, we use a proximity labeling approach, involving TurboID, to characterize the interactomes of two innexins that are expressed predominantly in neurons. We are setting up localization and functional assays to validate and further probe our findings. Our preliminary data identify scores of proteins predicted to be enriched at electrical synapses and imply that electrical synapses are sophisticated signalling nodes.

Tuesday, May 16, 2023 04:00pm - 05:00pm

Central Bldg / O1 / Mondi 2(I01.O1.008)



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