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Hybrid Seminar - Monday, April 25, 2022
In Person - 1220 MRB III and on Zoom

“Dynamics of autophagy and mitophagy in neurons”

- Autophagy in neurons maintains their health over decades of life, and deficits (protein aggregates, dysfunctional mitochondria) associate with neurodegeneration (Parkinson’s disease (PD), ALS).
- We identified a pathway wherein autophagosomes produced at synaptic sites and axon termini are transported to the soma (dynein-kinesin and MT-associated transport), tightly regulated by scaffolding proteins including Huntingtin and HAP1.
- Transport inhibition disrupts autophagosome maturation in cellular PD models.
- Using mouse brain, novel unbiased proteomic studies define the normal cargos cleared by autophagy, yielding unexpected insight into neuronal organelle quality control.

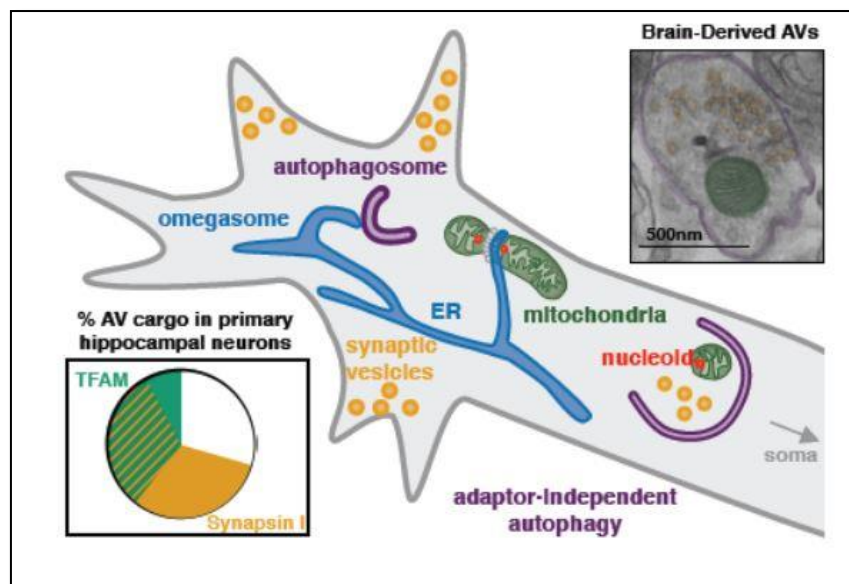


Diagram: Juliet Goldsmith & Erika Holzbaur, *Autophagy* (2022)
doi: 10.1080/15548627.2022.2056865

Host: David Miller, *Ph.D.*

Sponsored by the Vanderbilt Program in Developmental Biology