Protein Synthesis at the Synapse

Neurons are morphologically complex cells which house thousands of synapses, but yet contain a single nucleus (as a source for mRNA) in the cell body. The proteins present at synapses are the drivers of synaptic transmission and plasticity. Much of the local sourcing and remodeling of synaptic proteomes arises from the localized translation of mRNAs by ribosomes and protein degradation by proteasomes. I will discuss previous and current studies aimed at understanding the localization of mRNAs in neuronal processes and their unique translation mechanisms.

Host: Poul Henning Jensen

Read more about Erin Schuman’s research and find recent publications here: https://brain.mpg.de/schuman