Molecular and Functional Characterization of SCAMP in the Drosophila Nervous System

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Vesicle recycling is a critical aspect of fast and maintained synaptic transmission in the nervous system. A relatively uncharacterized class of synaptic vesicle (SV) integral proteins, Secretary Carrier Associated Membrane Proteins (SCAMP) may play a central role in nucleating clathrin mediated endocytosis at nerve terminals. Preliminary biochemical assays of mammalian SCAMPs suggest they link the membrane to the cytosolic endocytosis machinery (Fernandez Chacon, Achiriloaie et al. 2000). We propose to bring the tools of the Drosophila genetic system to bear on this question. The Drosophila nervous system offers a powerful model to assess protein localization, genet.