
6 CONCLUSIONS

1. Using chemical synapse at central nervous system as a model system, we have characterized synaptic DRMs as spatial coordinators for cargo sorting during synaptic vesicle cycling.
2. We discovered that the small GTPase Arf can bend and deform membranes *in vitro*. This indicates a new function played by Arfs in the process of vesicle- or tubule-mediated membrane trafficking. Furthermore, we demonstrate that Arf1 can coordinate with the adaptor protein GGA1 and the coat protein clathrin to initiate membrane bending at the TGN in the secretory pathway.