Several residues of the voltage-sensor domain are essential for the interaction of class 1 Cav subunits with L-type channels. In sarcoendoplasmic reticulum (SR) junctions, Cav subunits can be co-localized with the SR Ca2+ release channel RYR1. The RyR1 foot and Cav subunits form stable complexes, which are thought to be required for Cav subunit recruitment to the SR membrane. Ongoing FRAP experiments will reveal whether diminished co-clustering of β1 correlates with higher mobility and dynamic β subunit exchange in a native calcium channel signaling complex. Funding: FWF P23479 and W1101 (BEF), NIH R01 HL080050 (DLM).