Speaker: Akira Honda

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Title:

"Targeting of Arf - 1 to the early Golgi by membrin, an ER - Golgi SNARE."

Date: Wednesday, May 25

Time: 16:00 -17:00

Place: 7th floor Conference Room of Building A

Summary:

Arf and Rab family GTPases regulate membrane traffic in cells, yet little is known about how they are targeted to distinct organelles. To identify sequences in Arf-1 necessary for Golgi targeting, we examined the localization of chimeras between Arf-1 and Arf-6. Here we identify a 16 amino acid sequence in Arf-1 that specifies Golgi targeting and contains a motif (MXXE) that is recognized by membrin, an ER-Golgi SNARE protein. The MXXE motif is conserved in all Arfs known to localize to the Golgi and enables Arf-1 to localize to the early Golgi. Arf-1 lacking these 16 amino acids can still localize to the late Golgi where it displays a more rapid Golgi-cytosol cycle than wild type Arf-1, which localizes to both early and late Golgi. These studies suggest that membrin recruits Arf-1 to the early Golgi and reveal distinct kinetic cycles for Arf-1 at early and late Golgi determined by different sets of Arf regulators and effectors.

Host Raj Ladher<sensory Development, CDB>