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Monday, October 04, 2010 at 11 a.m.

IGBMC Auditorium

Special Seminar

Cross-talk between Cell Adhesion Complexes in Cellular Morphogenesis

Professor James NELSON

Dept. of Biology, The James H. Clark Center, The Bio-X Program, Stanford University, CA, USA

Cadherin-mediated cell-cell adhesion is critical for normal development and tissue organization in metazoans. Cadherins bind cytoplasmic beta-catenin and alpha-catenin, and strengthening of cell-cell adhesion involves local reorganization of the actin cytoskeleton. I will discuss conformational changes in alpha-catenin that regulate actin binding, how this evolved in zebrafish, C. elegans and the non-metazoan *Dictyostelium discoideum*, and show directly that alpha-catenin is a potent inhibitor of the Arp2/3 complex and suppressor of actin dynamics in general. The results identify alpha-catenin as an important protein in regulating actin and membrane dynamics during cell-cell adhesion and cell migration.

Host: Michel LABOUESSE

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