

VOL. 207, NO. 3, NOVEMBER 10, 2014

Probing Notch Receptor Trafficking

mTORC2 Boosts Glucose Uptake
Satellite RNA Launches Kinetochores
Assembling Motor Complexes In Vivo

NEWS

In This Issue

318

- Satellite RNA guides kinetochore assembly
- mTORC2 helps brown adipose tissue fuel up
- Building modular motor complexes

In Focus

319

Red and green traffic signals

People & Ideas

320

Dan Fletcher: A recipe for cooking up cellular machines

REVIEWS

Reviews

323

The contribution of $\alpha\beta$ -tubulin curvature to microtubule dynamics

Gary J. Brouhard and Luke M. Rice

RESEARCH ARTICLES

Articles

335

Repetitive centromeric satellite RNA is essential for kinetochore

formation and cell division

Silvana Rošić, Florian Köhler, and Sylvia Erhardt

A fluorescent tagging approach in Drosophila reveals late 351

endosomal trafficking of Notch and Sanpodo

Lydie Couturier, Mateusz Trylinski, Khallil Mazouni, Léa Darnet,

and François Schweisguth

Glucose uptake in brown fat cells is dependent on mTOR complex 2-365

promoted GLUT1 translocation

Jessica M. Olsen, Masaaki Sato, Olof S. Dallner, Anna L. Sandström, Didier F. Pisani, Jean-Claude Chambard, Ez-Zoubir Amri, Dana S. Hutchinson,

and Tore Bengtsson

Clarin-1 acts as a modulator of mechanotransduction activity 375

> and presynaptic ribbon assembly Oluwatobi Ogun and Marisa Zallocchi

Tools

393 A method for multiprotein assembly in cells reveals independent

action of kinesins in complex

Stephen R. Norris, Virupakshi Soppina, Aslan S. Dizaji, Kristin I. Schimert, David Sept, Dawen Cai, Sivaraj Sivaramakrishnan, and Kristen J. Verhey

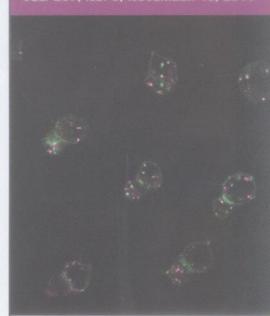
407 Live cell micropatterning reveals the dynamics of signaling complexes at the plasma membrane

Sara Löchte, Sharon Waichman, Oliver Beutel, Changjiang You,

and Jacob Piehler



VOL. 207, NO. 3, NOVEMBER 10, 2014



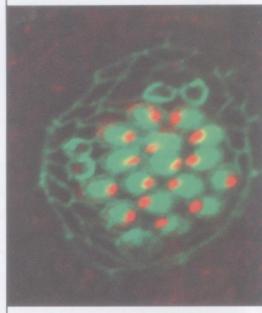
On the cover

In the notum of a Drosophila pupa, dividing cells express a version of the Notch receptor-binding protein Sanpodo tagged with both GFP (green) and mCherry (magenta). The signals from these two fluorochromes do not overlap and thus reveal two distinct populations of Sanpodo within the cells. By following the transfer of dual-tagged Sanpodo from one subpopulation to the other, Couturier et al. reveal that the endocytic regulator Numb downregulates Notch signaling in pllb cells by sorting Sanpodo to late endosomes and lysosomes. Image © 2014 Couturier et al. See page 351.

Articles with related stories in the IN THIS ISSUE section have page numbers in RED; articles related to the IN FOCUS feature have page numbers in BLUE.

pHuji, a pH-sensitive red fluorescent protein for imaging of exo- and endocytosis

Yi Shen, Morgane Rosendale, Robert E. Campbell, and David Perrais



Clarin-1 (red) is present in the apical region Clarin-I (red) is present in the apical region of mature neuromast hair cells in zebrafish larvae, showing minimal colocalization with F-actin (green). Ogun and Zallocchi reveal that clarin-1, which is mutated in Usher syndrome type 3, regulates mechanotransduction channel activity and promotes the leastligation of a magnific components in the localization of synaptic components in zebrafish hair cells.

Image © 2014 Ogun and Zallocchi. See page 375.