

VOL. 202. NO. 4. AUGUST 19, 2013

Phosphoregulation of Vacuole Shape

Bruchpilot Steers Synaptic Vesicles into Place

Aurora B Regulates
Two Kinesins for
Good Measure

Epiblast Cells Loosen Their CLASPs

NEWS

In This Issue

600

- Epiblast cells CLASP onto the basement membrane
- Bruchpilot readies synaptic vesicles for release
- Phosphorylation helps Atg18 gee the vacuole in shape

In Focus

601

Aurora B helps the central spindle measure up

People & Ideas

602

Jody Rosenblatt: To extrude apically or basally, that is the question

RESEARCH ARTICLES

Articles

605

Aurora B suppresses microtubule dynamics and limits central spindle size by locally activating KIF4A

Ricardo Nunes Bastos, Sapan R. Gandhi, Ryan D. Baron, Ulrike Gruneberg, Erich A. Nigg, and Francis A. Barr

Aurora B and Kif2A control microtubule length for assembly 623

of a functional central spindle during anaphase Ryota Uehara, Yuki Tsukada, Tomoko Kamasaki, Ina Poser, Kinya Yoda,

Epiblast integrity requires CLASP and Dystroglycan-mediated 637 microtubule anchoring to the basal cortex

Yukiko Nakaya, Erike W. Sukowati, and Guojun Sheng

653 The GEF Bcr activates RhoA/MAL signaling to promote

keratinocyte differentiation via desmoglein-1

Adi D. Dubash, Jennifer L. Koetsier, Evangeline V. Amargo, Nicole A. Najor, Robert M. Harmon, and Kathleen J. Green

The Bruchpilot cytomatrix determines the size of the readily 667 releasable pool of synaptic vesicles

> Tanja Matkovic, Matthias Siebert, Elena Knoche, Harald Depner, Sara Mertel, David Owald, Manuela Schmidt, Ulrich Thomas, Albert Sickmann, Dirk Kamin, Stefan W. Hell, Jörg Bürger, Christina Hollmann, Thorsten Mielke,

Atg18 phosphoregulation controls organellar dynamics by

modulating its phosphoinositide-binding activity

Naoki Tamura, Masahide Oku, Moemi Ito, Nobuo N. Noda, Fuyuhiko Inagaki

hGAAP promotes cell adhesion and migration via the stimulation 699

of store-operated Ca²⁺ entry and calpain 2

Nuno Saraiva, David L. Prole, Guia Carrara, Benjamin F. Johnson, Colin W. Taylor, Maddy Parsons, and Geoffrey L. Smith



VOL. 202, NO. 4, AUGUST 19, 2013

On the cover

A cross-section through the primitive streak of an early chick embryo shows how the cell adhesion protein B-dystroglycan (red) is down-regulated in epiblast cells undergoing epithelialto-mesenchymal transition during gastrulation. Nakaya et al. reveal how this process is regulated by the CLASP family of microtubule plus-end tracking proteins. Nuclei are labeled green. Image © 2013 Nakaya et al. See page 637.

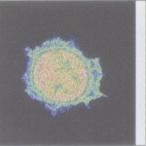
Corrections

715 Complete repair of dystrophic skeletal muscle by mesoangioblasts with enhanced migration ability

Beatriz G. Galvez, Maurilio Sampaolesi, Silvia Brunelli, Diego Covarello, Manuela Gavina, Barbara Rossi, Gabriela Constantin, Yvan Torrente, and Giulio Cossu

717 The tumor suppressor CDKN3 controls mitosis

Grzegorz Nalepa, Jill Barnholtz-Sloan, Rikki Enzor, Dilip Dey, Ying He, Jeff R. Gehlhausen, Amalia S. Lehmann, Su-Jung Park, Yanzhu Yang, Xianlin Yang, Shi Chen, Xiaowei Guan, Yanwen Chen, Jamie Renbarger, Feng-Chun Yang, Luis F. Parada, and Wade Clapp





A FRET-based biosensor monitors the activity of the calcium-activated protease calpain in a control cell (left) and a cell overexpressing the Golgi anti-apoptotic protein hGAAP (right), hGAAP enhances calpain activity (red) near the plasma membrane, thereby promoting focal adhesion turnover and cell migration. Image © 2013 Saraiva et al.