

## NEWS

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- CaMKII points the way

M. Leslie

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Crumbs limits oxidase-dependent signaling to maintain epithelial integrity and prevent photoreceptor cell death

François J.-M. Chartier, Émilie J.-L. Hardy, and Patrick Laprise

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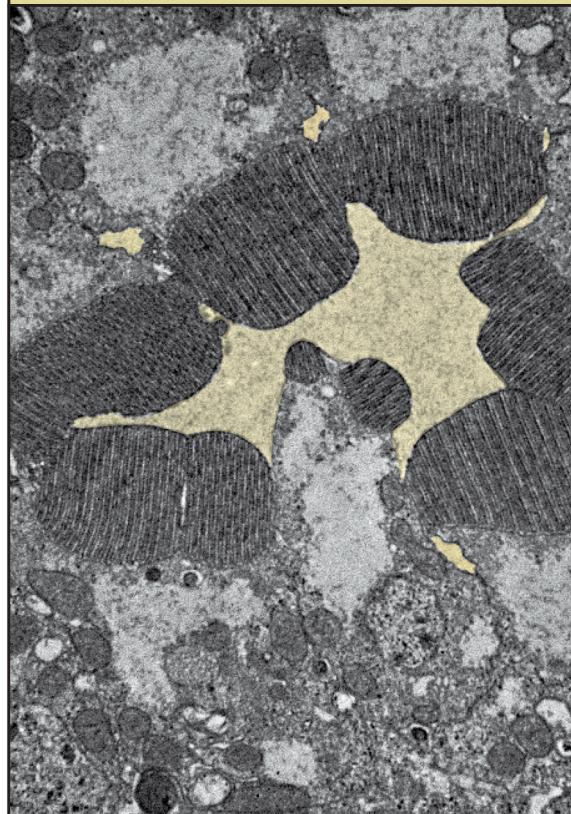
Cell confinement controls centrosome positioning and lumen initiation during epithelial morphogenesis

Alejo E. Rodríguez-Fraticelli, Muriel Auzan, Miguel A. Alonso, Michel Bornens, and Fernando Martín-Belmonte

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INF2 promotes the formation of dytrosinated microtubules necessary for centrosome reorientation in T cells

Laura Andrés-Delgado, Olga M. Antón, Francesca Bartolini, Ana Ruiz-Sáenz, Isabel Correas, Gregg G. Gundersen, and Miguel A. Alonso



### On the cover

An electron micrograph shows a cluster of *Drosophila* photoreceptor cells lacking the apical membrane protein Crumbs, which degenerate upon exposure to light. Chartier et al. reveal that Crumbs protects retinal cells by limiting the production of reactive oxygen species by Rac1 and NADPH oxidase. Image courtesy of François Chartier.

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Dynein light chain 1 and a spindle-associated adaptor promote dynein asymmetry and spindle orientation

Anja K. Dunsch, Dean Hammond, Jennifer Lloyd, Lothar Schermelleh, Ulrike Gruneberg, and Francis A. Barr

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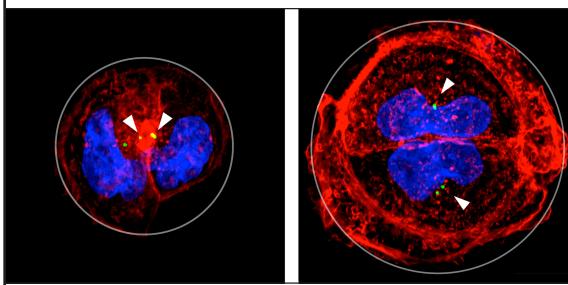
Translocation of CaMKII to dendritic microtubules supports the plasticity of local synapses

Mado Lemieux, Simon Labrecque, Christian Tardif, Étienne Labrie-Dion, Éric LeBel, and Paul De Koninck

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Temporal sampling, resetting, and adaptation orchestrate gradient sensing in sperm

Nachiket D. Kashikar, Luis Alvarez, Reinhard Seifert, Ingo Gregor, Oliver Jäckle, Michael Beyermann, Eberhard Krause, and U. Benjamin Kaupp



Rodríguez-Fraticelli et al. demonstrate that cell confinement promotes epithelial polarization and lumen formation. When MDCK cells are seeded onto a small, collagen-coated micropattern (left), actin (red) concentrates at cell–cell contacts, and centrosomes (green, arrowheads) orient toward the micropattern center. But in cells seeded on a larger surface (right), actin fibers accumulate all around the cells, and centrosomes orient toward the periphery of the micropattern.  
Image © 2012 Rodríguez-Fraticelli et al.  
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