

PEOPLE & IDEAS

- 1425 **Gabriel Muhire Gihana: A candle loses nothing by lighting other candles**
Marie Anne O'Donnell

SPOTLIGHTS

- 1427 **Active RNA polymerase II curbs chromatin movement**
Hodaya Hochberg-Laufer and Yaron Shav-Tal
- 1429 **A CRACKer of an adaptor connects dynein-mediated transport to calcium signaling**
Mahak Sharma and Devashish Dwivedi
- 1432 **ATG9 raises the BAR for PI4P in autophagy**
Oren Shatz and Zvulun Elazar
- 1434 **Neurons regulate synaptic strength through homeostatic scaling of active zones**
Karen L. Cunningham and J. Troy Littleton

REVIEWS

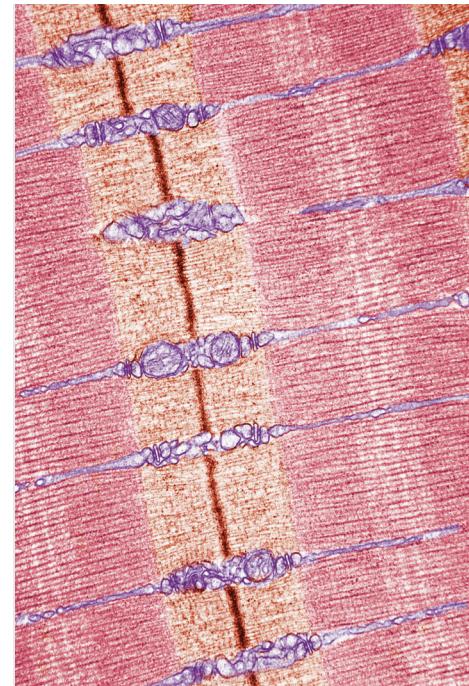
- 1436 **How cells fuse**
Nicolas G. Brukman, Berna Uygur, Benjamin Podbilewicz, and Leonid V. Chernomordik
- 1452 **Designing a rigorous microscopy experiment: Validating methods and avoiding bias**
Anna Payne-Tobin Jost and Jennifer C. Waters

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- 1467 **Cell cycle- and genomic distance-dependent dynamics of a discrete chromosomal region**
Hanhui Ma, Li-Chun Tu, Yu-Chieh Chung, Ardalan Naseri, David Grunwald, Shaojie Zhang, and Thoru Pederson
- 1478 **Yeast centrosome components form a noncanonical LINC complex at the nuclear envelope insertion site**
Jingjing Chen, Jennifer M. Gardner, Zulin Yu, Sarah E. Smith, Sean McKinney, Brian D. Slaughter, Jay R. Unruh, and Sue L. Jaspersen
- 1491 **Extramitochondrial cardiolipin suggests a novel function of mitochondria in spermatogenesis**
Mindong Ren, Yang Xu, Hediye Erdjument-Bromage, Alec Donelian, Colin K.L. Phoon, Naohiro Terada, Douglas Strathdee, Thomas A. Neubert, and Michael Schlame
- 1503 **COPII vesicles contribute to autophagosomal membranes**
Takayuki Shima, Hiromi Kirisako, and Hitoshi Nakatogawa

ARTICLES

- 1511 **Single nucleosome imaging reveals loose genome chromatin networks via active RNA polymerase II**
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- 1531 **Live imaging of marked chromosome regions reveals their dynamic resolution and compaction in mitosis**
John K. Eykelenboom, Marek Gierliński, Zuojun Yue, Nadia Hegarat, Hilary Pollard, Tatsuo Fukagawa, Helfrid Hochegger, and Tomoyuki U. Tanaka



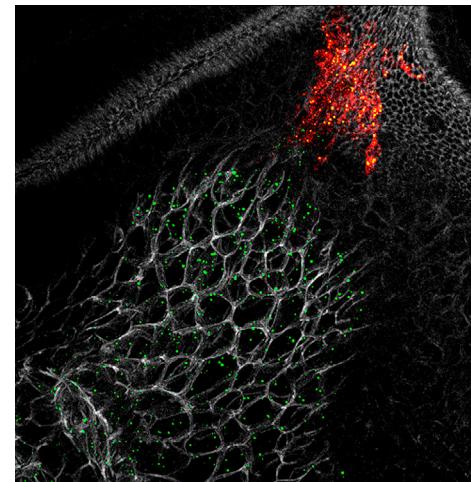
ON THE COVER

Electron micrograph image showing organization of sarcomeres in skeletal myofibers, including the triads formed by the juxtaposition of the sarcoplasmic reticulum and transverse tubules with adjacent mitochondria shown in blue. The I-bands, containing actin, and the A-bands, containing actin and myosin, are colored in red.
Image © Oury et al., 2019.
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- 1553 **Cyclin B3 is required for metaphase to anaphase transition in oocyte meiosis I**
Yufei Li, Leyun Wang, Linlin Zhang, Zhengquan He, Guihai Feng, Hao Sun, Jiaqiang Wang, Zhikun Li, Chao Liu, Jiabao Han, Junjie Mao, Pengcheng Li, Xuewei Yuan, Liyuan Jiang, Ying Zhang, Qi Zhou, and Wei Li
- 1564 **Translation factor mRNA granules direct protein synthetic capacity to regions of polarized growth**
Mariavittoria Pizzinga, Christian Bates, Jennifer Lui, Gabriella Forte, Fabián Morales-Polanco, Emma Linney, Barbora Knotkova, Beverley Wilson, Clara A. Solari, Luke E. Berchowitz, Paula Portela, and Mark P. Ashe
- 1582 **Maturation-driven transport and AP-1-dependent recycling of a secretory cargo in the Golgi**
Jason C. Casler, Effrosyni Papanikou, Juan J. Barrero, and Benjamin S. Glick
- 1602 **Visualization of secretory cargo transport within the Golgi apparatus**
Kazuo Kurokawa, Hiroko Osakada, Tomoko Kojidani, Miho Waga, Yasuyuki Suda, Haruhiko Asakawa, Tokuko Haraguchi, and Akihiko Nakano
- 1619 **CRACR2a is a calcium-activated dynein adaptor protein that regulates endocytic traffic**
Yuxiao Wang, Walter Huynh, Taylor D. Skokan, Wen Lu, Arthur Weiss, and Ronald D. Vale
- 1634 **ATG9A shapes the forming autophagosome through Arfaptin 2 and phosphatidylinositol 4-kinase III β**
Delphine Judith, Harold B.J. Jefferies, Stefan Boeing, David Frith, Ambrosius P. Snijders, and Sharon A. Tooze
- 1653 **Drosophila FGF cleavage is required for efficient intracellular sorting and intercellular dispersal**
Alex Sohr, Lijuan Du, Ruofan Wang, Li Lin, and Sougata Roy
- 1670 **Tks5 and Dynamin-2 enhance actin bundle rigidity in invadosomes to promote myoblast fusion**
Mei-Chun Chuang, Shan-Shan Lin, Ryosuke L. Ohniwa, Gang-Hui Lee, You-An Su, Yu-Chen Chang, Ming-Jer Tang, and Ya-Wen Liu
- 1686 **MACF1 links Rapsyn to microtubule- and actin-binding proteins to maintain neuromuscular synapses**
Julien Oury, Yun Liu, Ana Töpf, Slobodanka Todorovic, Esthelle Hoedt, Veeramani Preethish-Kumar, Thomas A. Neubert, Weichun Lin, Hanns Lochmüller, and Steven J. Burden
- 1706 **Homeostatic scaling of active zone scaffolds maintains global synaptic strength**
Pragya Goel, Dominique Dufour Bergeron, Mathias A. Böhme, Luke Nunnally, Martin Lehmann, Christopher Buser, Alexander M. Walter, Stephan J. Sigrist, and Dion Dickman
- 1725 **VE-PTP stabilizes VE-cadherin junctions and the endothelial barrier via a phosphatase-independent mechanism**
Vanessa V. Juettner, Kevin Kruse, Arkaprava Dan, Vinh H. Vu, Yousaf Khan, Jonathan Le, Deborah Leckband, Yulia Komarova, and Asrar B. Malik
- 1743 **GPCR-independent activation of G proteins promotes apical cell constriction in vivo**
Arthur Marivin, Veronika Morozova, Isha Walawalkar, Anthony Leyme, Dmitry A. Kretov, Daniel Cifuentes, Isabel Dominguez, and Mikel Garcia-Marcos

CORRECTIONS

- 1764 **Correction: IRE1-XBP1 pathway regulates oxidative proinsulin folding in pancreatic β cells**
Yuichi Tsuchiya, Michiko Saito, Hiroshi Kadokura, Jun-ichi Miyazaki, Fumi Tashiro, Yusuke Imagawa, Takao Iwawaki, and Kenji Kohno



A Z-projected image is shown of epithelial cells (anti-Discs large, white) in the *Drosophila* wing imaginal disc and an associated tracheal branch, the air-sac-primordium (ASP; larger cells). FGF molecules are dual tagged with HA and GFP tags flanking a Furin1 cleavage site. The full-length signal appears as colocalized anti-HA (red) and GFP (green) but is cleaved in the wing disc source cells before the polarized intercellular dispersal of the GFP-tagged truncated FGF to the ASP.

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