

## PEOPLE & IDEAS

e201912056 **Yan Song: How time flies**

Marie Anne O'Donnell

## SPOTLIGHTS

e201910211 **FG-nucleoporins caught in the act of liquid-liquid phase separation**

Dorothee Dormann

e201912010 **ORP5 regulates PI(4)P on the lipid droplet: Novel players on the monolayer**

Mike F. Renne and Brooke M. Emerling

## REVIEWS

e201907022 **The complexity of the serine glycine one-carbon pathway in cancer**

Miguel Reina-Campos, Maria T. Diaz-Meco, and Jorge Moscat

e201909033 **Autophagy and cancer: Modulation of cell death pathways and cancer cell adaptations**

Christina G. Towers, Darya Wodetzki, and Andrew Thorburn

e201908224 **Modulation of the immune microenvironment by tumor-intrinsic oncogenic signaling**

Kim Bich Nguyen and Stefani Spranger

e201910070 **Don't sugarcoat it: How glycocalyx composition influences cancer progression**

Alexander Buffone Jr. and Valerie M. Weaver

e201911053 **Stem cells in cancer initiation and progression**

Jeevisha Bajaj, Emily Diaz, and Tannishtha Reya

## REPORTS

e201904046 **Gene expression amplification by nuclear speckle association**

Jiah Kim, Neha Chivukula Venkata, Gabriela Andrea Hernandez Gonzalez, Nimish Khanna, and Andrew S. Belmont

e201907157 **The liquid state of FG-nucleoporins mimics permeability barrier properties of nuclear pore complexes**

Giorgia Celetti, Giulia Paci, Joana Caria, Virginia VanDelinder, George Bachand, and Edward A. Lemke

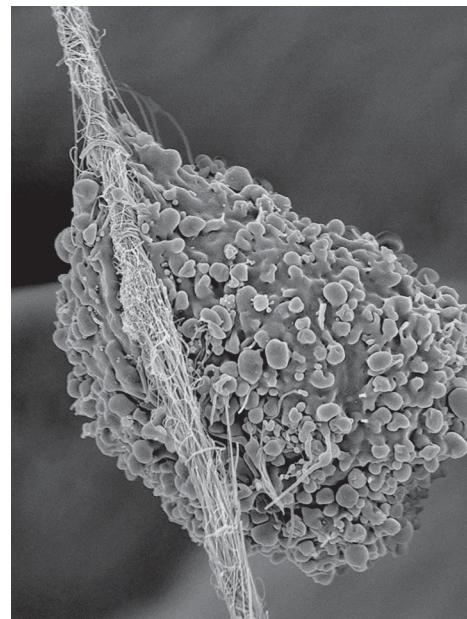
e201904091 **Ciliary force-responsive striated fibers promote basal body connections and cortical interactions**

Adam W.J. Soh, Teunis J.P. van Dam, Alexander J. Stemm-Wolf, Andrew T. Pham, Garry P. Morgan, Eileen T. O'Toole, and Chad G. Pearson

## ARTICLES

e201807189 **Topoisomerase II SUMOylation activates a metaphase checkpoint via Haspin and Aurora B kinases**

Nootan Pandey, Daniel Keifenheim, Makoto Michael Yoshida, Victoria A. Hassebroek, Caitlin Soroka, Yoshiaki Azuma, and Duncan J. Clarke



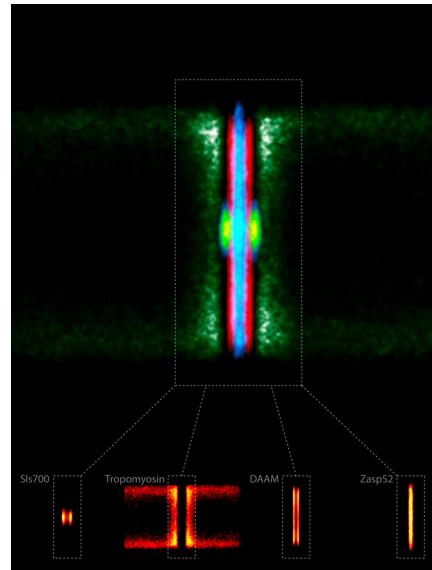
## ON THE COVER

The collagen trail: Journey to the microenvironment.

Ovarian cancer cell migrating along a collagen fiber, imaged using scanning electron microscopy.

Image © Elizabeth Harper, University of Notre Dame, Notre Dame, IN

- e201905162 **ORP5 localizes to ER-lipid droplet contacts and regulates the level of PI(4)P on lipid droplets**  
 Ximing Du, Linkang Zhou, Yvette Celine Aw, Hoi Yin Mak, Yanqing Xu, James Rae, Wenmin Wang, Armella Zadoorian, Sarah E. Hancock, Brenna Osborne, Xiang Chen, Jia-Wei Wu, Nigel Turner, Robert G. Parton, Peng Li, and Hongyuan Yang
- e201904203 **WBP11 is required for splicing the TUBGCP6 pre-mRNA to promote centriole duplication**  
 Elizabeth M. Park, Phillip M. Scott, Kevin Clutario, Katelyn B. Cassidy, Kevin Zhan, Scott A. Gerber, and Andrew J. Holland
- e201812135 **CHC22 clathrin mediates traffic from early secretory compartments for human GLUT4 pathway biogenesis**  
 Stéphane M. Camus, Marine D. Camus, Carmen Figueras-Novoa, Gaelle Boncompain, L. Amanda Sadacca, Christopher Esk, Anne Bigot, Gwyn W. Gould, Dimitrios Kioumourtzoglou, Franck Perez, Nia J. Bryant, Shaeri Mukherjee, and Frances M. Brodsky
- e201812044 **Tumor protein D54 defines a new class of intracellular transport vesicles**  
 Gabrielle Larocque, Penelope J. La-Borde, Nicholas I. Clarke, Nicholas J. Carter, and Stephen J. Royle
- e201906076 **PQLC2 recruits the C9orf72 complex to lysosomes in response to cationic amino acid starvation**  
 Joseph Amick, Arun Kumar Tharkeshwar, Gabriel Talaia, and Shawn M. Ferguson
- e201902164 **NCAM regulates temporal specification of neural progenitor cells via profilin2 during corticogenesis**  
 Rui Huang, De-Juan Yuan, Shao Li, Xue-Song Liang, Yue Gao, Xiao-Yan Lan, Hua-Min Qin, Yu-Fang Ma, Guang-Yin Xu, Melitta Schachner, Vladimir Sytnyk, Johannes Boltze, Quan-Hong Ma, and Shen Li
- e201903134 **Relief of talin autoinhibition triggers a force-independent association with vinculin**  
 Paul Atherton, Franziska Lausecker, Alexandre Carisey, Andrew Gilmore, David Critchley, Igor Barsukov, and Christoph Ballestrem
- e201907060 **Electron cryotomography of intact motile cilia defines the basal body to axoneme transition**  
 Garrett A. Greenan, Ronald D. Vale, and David A. Agard
- e201907026 **Nanoscopy reveals the layered organization of the sarcomeric H-zone and I-band complexes**  
 Szilárd Szikora, Tamás Gajdos, Tibor Novák, Dávid Farkas, István Földi, Peter Lenart, Miklós Erdélyi, and József Mihály
- e201904054 **Regulated resurfacing of a somatostatin receptor storage compartment fine-tunes pituitary secretion**  
 Walaa Alshafie, Vincent Francis, Klaudia Bednarz, Yingzhou Edward Pan, Thomas Stroh, and Peter S. McPherson
- e201812098 **SNX27-retromer assembly recycles MT1-MMP to invadopodia and promotes breast cancer metastasis**  
 Priyanka Sharma, Sameena Parveen, Lekha V. Shah, Madhumita Mukherjee, Yannis Kalaidzidis, Anthony J. Kozielski, Roberto Rosato, Jenny C. Chang, and Sunando Datta
- e201905002 **ALK4 coordinates extracellular and intrinsic signals to regulate development of cortical somatostatin interneurons**  
 Christina Göngrich, Favio A. Krapacher, Hermann Munguba, Diana Fernández-Suárez, Annika Andersson, Jens Hjerling-Leffler, and Carlos F. Ibáñez



Nanoscale reconstruction of the sarcomeric Z-disk based on dSTORM imaging of *Drosophila* indirect flight muscle proteins.  
 Image © Szikora et al., 2019  
<https://doi.org/10.1083/jcb.201907026>

e201907210 **Cryo-EM structure of the complete and ligand-saturated insulin receptor ectodomain**

Theresia Gutmann, Ingmar B. Schäfer, Chetan Poojari, Beate Brankatschk, Ilpo Vattulainen, Mike Strauss, and Ünal Coskun

e201812087 **CD2AP links actin to PI3 kinase activity to extend epithelial cell height and constrain cell area**

Yuou Wang and William M. Brieher

e201902014 **Ca<sup>2+</sup> transients in melanocyte dendrites and dendritic spine-like structures evoked by cell-to-cell signaling**

Rachel L. Belote and Sanford M. Simon

e201902088 **A pair of E3 ubiquitin ligases compete to regulate filopodial dynamics and axon guidance**

Nicholas P. Boyer, Laura E. McCormick, Shalini Menon, Fabio L. Urbina, and Stephanie L. Gupton

**TOOLS**

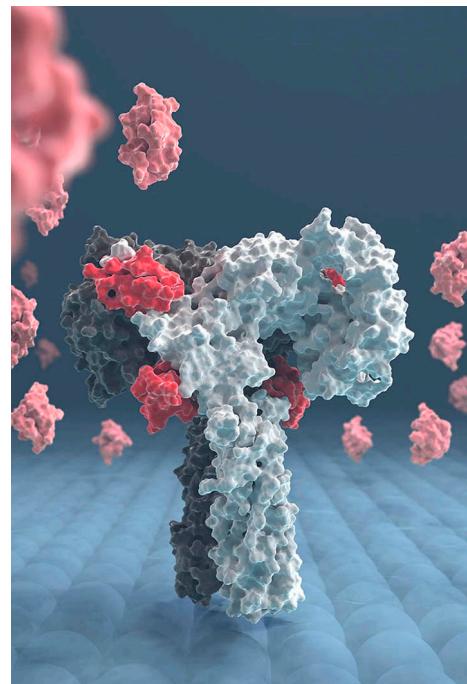
e201901097 **Coupling APEX labeling to imaging mass spectrometry of single organelles reveals heterogeneity in lysosomal protein turnover**

Derek P. Narendra, Christelle Guillermier, Frank Gyngard, Xiaoping Huang, Michael E. Ward, and Matthew L. Steinhauser

**CORRECTIONS**

**Correction: G3BP-Caprin1-USP10 complexes mediate stress granule condensation and associate with 40S subunits**

Nancy Kedersha, Marc D. Panas, Christopher A. Achorn, Shawn Lyons, Sarah Tisdale, Tyler Hickman, Marshall Thomas, Judy Lieberman, Gerald M. McInerney, Pavel Ivanov, and Paul Anderson



A 3D rendered cryo-EM structure of the human insulin receptor bound to four insulins (red) is shown.

Image © Jyrki Hokkanen, CSC – IT Center for Science, Espoo, Finland

See Gutmann et al., 2019

<https://doi.org/10.1083/jcb.201907210>