



Cover: Winning image, 'Owl Eyes', from the 2020 FocalPlane image competition, taken by Tejeshwar Rao from Alexa L. Mattheyses' lab at the University of Alabama, USA. The image depicts a duplicated Cos-7 cell plated on a tension gauge tether surface. After stimulation with epidermal growth factor (EGF), the cell was fixed and stained for F-actin (orange hot) using phalloidin and for focal adhesions (blue-green) using a paxillin antibody. Integrin forces (i.e. open tension probes) are shown in greyscale. Total internal reflection fluorescence (TIRF) microscopy was employed to acquire the images, which were processed using NIS Elements and reconstructed in Fiji (ImageJ).

STICKY WICKETS

Corona XXI – outside the frame

Mole

jcs254243

Corona XXII – the escape

Mole

jcs254680

FIRST PERSON

First person – Amelia Townley

jcs256164

First person – Takeshi Harada

jcs256024

First person – Wei Sheng Yap

jcs256016

OPINION

Hypothesis-driven quantitative fluorescence microscopy – the importance of reverse-thinking in experimental design

Wait, E. C., Reiche, M. A. and Chew, T.-L.

jcs250027

CELL SCIENCE AT A GLANCE

FGF2 and IL-1 β – explorers of unconventional secretory pathways at a glance

Pallotta, M. T. and Nickel, W.

jcs250449

REVIEW

The pivotal role of ERp44 in patrolling protein secretion

Tempio, T. and Anelli, T.

jcs240366

RESEARCH ARTICLES

Mitochondrial survivin reduces oxidative phosphorylation in cancer cells by inhibiting mitophagy

Townley, A. R. and Wheatley, S. P.

jcs247379

A novel coordinated function of Myosin II with GOLPH3 controls centralspindlin localization during cytokinesis in *Drosophila*

Sechi, S., Frappaolo, A., Karimpour-Ghahnavieh, A., Fraschini, R. and Giansanti, M. G.

jcs252965

Palmitoylated CKAP4 regulates mitochondrial functions through an interaction with VDAC2 at ER–mitochondria contact sites

Harada, T., Sada, R., Osugi, Y., Matsumoto, S., Matsuda, T., Hayashi-Nishino, M., Nagai, T., Harada, A. and Kikuchi, A.

jcs249045

RNF144a induces ERK-dependent cell death under oxidative stress via downregulation of vaccinia-related kinase 3

Han, S. H. and Kim, K.-T.

jcs247304

An autophagy-dependent tubular lysosomal network synchronizes degradative activity required for muscle remodeling

Murakawa, T., Kiger, A. A., Sakamaki, Y., Fukuda, M. and Fujita, N.

jcs248336

Identification of key features required for efficient S-acylation and plasma membrane targeting of sprouty-2

Locatelli, C., Lemonidis, K., Salaun, C., Tomkinson, N. C. O. and Chamberlain, L. H.

jcs249664

The yeast *FIT2* homologs are necessary to maintain cellular proteostasis and membrane lipid homeostasis

Yap, W. S., Shyu, P., Jr., Gaspar, M. L., Jesch, S. A., Marvalim, C., Prinz, W. A., Henry, S. A. and Thibault, G.

jcs248526

An evolutionarily distinct chaperone promotes 20S proteasome α -ring assembly in plants

Marshall, R. S., Gemperline, D. C., McLoughlin, F., Book, A. J., Hofmann, K. and Vierstra, R. D.

jcs249862

Mitotic checkpoint protein Mad1 is required for early Nup153 recruitment to chromatin and nuclear envelope integrity

Mossaid, I., Chatel, G., Martinelli, V., Vaz, M. and Fahrenkrog, B.

jcs249243

Periodic subcellular structures undergo long-range synchronized reorganization during *C. elegans* epidermal development

Wang, C., Yang, Y., Fu, R., Zhu, Y. and Zhang, H.

jcs246793

TOOLS AND RESOURCES

Differentiation of ciliated human midbrain-derived LUHMES neurons

Lauter, G., Coschiera, A., Yoshihara, M., Sugiaman-Trapman, D., Ezer, S., Sethurathinam, S., Katayama, S., Kere, J. and Swoboda, P.

jcs249789