



Cover: PAR3, an evolutionarily conserved cell polarity-regulating factor, is known to form protein clusters. PAR3 cluster formation is important for its accumulation at specific sites in polarized cells. The study demonstrates that phosphorylation of Ser852 and Ser889 inhibit clustering of PAR3 and that the ASPP2–PP1 protein complex dephosphorylates Ser852 of PAR3. In this image, an exogenously expressed Ser852Ala mutant PAR3 (green), ASPP2 (magenta) and nucleus (blue) were visualized through immunofluorescence. ASPP2 accumulated in the PAR3 clusters. Note that these MDCK epithelial cells were cultured in low Ca^{2+} -containing medium to disrupt the cell–cell adhesion. See article by K. Yamashita et al. (jcs244830).

STICKY WICKETS

Corona XXIII – innovation

Mole

jcs254912

Corona XXIV – poison

Mole

jcs255588

FIRST PERSON

First person – Sarah Taheraly

jcs256677

First person – Mohammad Yunus Ansari

jcs256644

CELL SCIENTISTS TO WATCH

Cell scientist to watch – Hayley Sharpe

jcs255869

REVIEWS

Ribosome-associated quality control of membrane proteins at the endoplasmic reticulum

Phillips, B. P. and Miller, E. A.

jcs251983

It takes two to tango – molecular links between plant immunity and brassinosteroid signalling

Ortiz-Morea, F. A., He, P., Shan, L. and Russinova, E.

jcs246728

Accessory proteins of the zDHHC family of S-acylation enzymes

Salaun, C., Locatelli, C., Zmuda, F., Cabrera González, J. and Chamberlain, L. H.

jcs251819

SHORT REPORT

Autophagic feedback-mediated degradation of $\text{IKK}\alpha$ requires CHK1 - and p300/CBP -dependent acetylation of p53

Xu, X., Zhang, C., Xu, H., Wu, L., Hu, M. and Song, L.

jcs246868

RESEARCH ARTICLES

Spatial constraints on chromosomes are instrumental to meiotic pairing

Tian, M., Agreiter, C. and Loidl, J.

jcs253724

Stable tug-of-war between kinesin-1 and cytoplasmic dynein upon different ATP and roadblock concentrations

Monzon, G. A., Scharrel, L., DSouza, A., Henrichs, V., Santen, L. and Diez, S.

jcs249938

Mitochondrial dysfunction triggers a catabolic response in chondrocytes via ROS-mediated activation of the JNK/AP1 pathway

Ansari, M. Y., Ahmad, N., Voleti, S., Wase, S. J., Novak, K. and Haqqi, T. M.

jcs247353

Phosphorylation and dephosphorylation of Ser852 and Ser889 control the clustering, localization and function of PAR3

Yamashita, K., Mizuno, K., Furukawa, K., Hirose, H., Sakurai, N., Masuda-Hirata, M., Amano, Y., Hirose, T., Suzuki, A. and Ohno, S.

jcs244830

BCAT1 affects mitochondrial metabolism independently of leucine transamination in activated human macrophages

Ko, J.-H., Olona, A., Papathanassiou, A. E., Buang, N., Park, K.-S., Costa, A. S. H., Mauro, C., Frezza, C. and Behmoaras, J.

jcs247957

TOOLS AND RESOURCES

An image analysis method to survey the dynamics of polar protein abundance in the regulation of tip growth

Taheraly, S., Ershov, D., Dmitrieff, S. and Minc, N.

jcs252064

Cell Tracking Profiler – a user-driven analysis framework for evaluating 4D live-cell imaging data

Mitchell, C., Caroff, L., Solis-Lemus, J. A., Reyes-Aldasoro, C. C., Vigilante, A., Warburton, F., de Chaumont, F., Dufour, A., Dallongeville, S., Olivo-Marin, J.-C. and Knight, R.

jcs241422