



**Cover:** Composite TIRF microscopy image, depicting a collage of a single 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 (blue/green) by using phalloidin. Integrin forces, i.e. open tension probes, are depicted in gold. The study suggests that ligand-activated EGF receptor (EGFR) signalling mediates the mechanical threshold for integrin activation, as well as formation, maturation and spatial organization of focal adhesions. See article by T.C. Rao et al. (jcs238840).

## JCS PRIZE

2019 Winner: Dominika Rudzka  
**Way, M. (Editor-in-Chief)**  
jcs250282

## STICKY WICKETS

Toxic! I  
**Mole**  
jcs249144

Toxic! II  
**Mole**  
jcs249581

## FIRST PERSON

First person – Tejeshwar Rao  
jcs250381

First person – Megan Mc Fie  
jcs250357

First person – Mang Zhu  
jcs250365

First person – Nicholas Maskalenko  
jcs250399

## CELL SCIENCE AT A GLANCE

The myofibroblast at a glance  
**Pakshir, P., Noskovicova, N., Lodyga, M., Son, D. O., Schuster, R., Goodwin, A., Karvonen, H. and Hinz, B.**  
jcs227900

## HYPOTHESIS

Exploring the interdependence between self-organization and functional morphology in cellular systems  
**Mancinelli, G. and Galic, M.**  
jcs242479

## REVIEW

The osteoclast cytoskeleton – current understanding and therapeutic perspectives for osteoporosis  
**Blangy, A., Bompard, G., Guerit, D., Marie, P., Maurin, J., Morel, A. and Vives, V.**  
jcs244798

## SHORT REPORTS

A non-catalytic function of PI3K $\gamma$  drives smooth muscle cell proliferation after arterial damage  
**Lupieri, A., Blaise, R., Ghigo, A., Smirnova, N., Sarthou, M.-K., Malet, N., Limon, I., Vincent, P., Hirsch, E., Gayral, S., Ramel, D. and Laffargue, M.**  
jcs245969

Cep57 and Cep5711 function redundantly to recruit the Cep63–Cep152 complex for centriole biogenesis  
**Zhao, H., Yang, S., Chen, Q., Duan, X., Li, G., Huang, Q., Zhu, X. and Yan, X.**  
jcs241836

## RESEARCH ARTICLES

TPC2-mediated Ca<sup>2+</sup> signaling is required for axon extension in caudal primary motor neurons in zebrafish embryos  
**Guo, C., Webb, S. E., Chan, C. M. and Miller, A. L.**  
jcs244780

EGFR activation attenuates the mechanical threshold for integrin tension and focal adhesion formation  
**Rao, T. C., Ma, V. P.-Y., Blanchard, A., Urner, T. M., Grandhi, S., Salaita, K. and Mattheyses, A. L.**  
jcs238840

A trimeric metazoan Rab7 GEF complex is crucial for endocytosis and scavenger function  
**Dehnen, L., Janz, M., Verma, J. K., Psathaki, O. E., Langemeyer, L., Fröhlich, F., Heinisch, J. J., Meyer, H., Ungermann, C. and Paululat, A.**  
jcs247080

Perinuclear mitochondrial clustering, increased ROS levels, and HIF1 are required for the activation of HSF1 by heat stress  
**Agarwal, S. and Ganesh, S.**  
jcs245589

Trypanosomes have divergent kinesin-2 proteins that function differentially in flagellum biosynthesis and cell viability  
**Douglas, R. L., Haltiwanger, B. M., Albisetti, A., Wu, H., Jeng, R. L., Mancuso, J., Cande, W. Z. and Welch, M. D.**  
jcs129213

Proteomic analysis reveals the direct recruitment of intrinsically disordered regions to stress granules in *S. cerevisiae*  
**Zhu, M., Kuechler, E. R., Zhang, J., Matalon, O., Dubreuil, B., Hofmann, A., Loewen, C., Levy, E. D., Gsponer, J. and Mayor, T.**  
jcs244657

Clathrin regulates Wnt/ $\beta$ -catenin signaling by affecting Golgi to plasma membrane transport of transmembrane proteins  
**Munthe, E., Raiborg, C., Stenmark, H. and Wenzel, E. M.**  
jcs244467

Ciliary proteins specify the cell inflammatory response by tuning NF $\kappa$ B signalling, independently of primary cilia  
**Mc Fie, M., Koneva, L., Collins, I., Coveney, C. R., Clube, A. M., Chanalaris, A., Vincent, T. L., Bezbradica, J. S., Sansom, S. N. and Wann, A. K. T.**  
jcs239871

Bidirectional transfer of homeoprotein EN2 across the plasma membrane requires PIP<sub>2</sub>

**Amblard, I., Dupont, E., Alves, I., Miralvès, J., Queguiner, I. and Joliot, A.**

jcs244327

Cofilin is required for polarization of tension in stress fiber networks during migration

**Lee, S. and Kumar, S.**

jcs243873

*Drosophila* Wash and the Wash regulatory complex function in nuclear envelope budding

**Verboon, J. M., Nakamura, M., Davidson, K. A., Decker, J. R., Nandakumar, V. and Parkhurst, S. M.**

jcs243576

The molecular chaperone Hsp90 regulates heterochromatin assembly through stabilizing multiple complexes in fission yeast

**Sun, L., Liu, X.-M., Li, W.-Z., Yi, Y.-Y., He, X., Wang, Y. and Jin, Q.-W.**

jcs244863

Vacuolins and myosin VII are required for phagocytic uptake and phagosomal membrane recycling in *Dictyostelium discoideum*

**Bosmani, C., Leuba, F., Hanna, N., Bach, F., Burdet, F., Pagni, M., Hagedorn, M. and Soldati, T.**

jcs242974

Snail induces epithelial cell extrusion by regulating RhoA contractile signalling and cell–matrix adhesion

**Wee, K., Hediye-zadeh, S., Duszyc, K., Verma, S., Nanavati, B. N., Khare, S., Varma, A., Daly, R. J., Yap, A. S., Davis, M. J. and Budnar, S.**

jcs235622

The DISC1–Girdin complex – a missing link in signaling to the T cell cytoskeleton

**Maskalenko, N., Nath, S., Ramakrishnan, A., Anikeeva, N., Sykulev, Y. and Poenie, M.**

jcs242875

A cellular model of albumin endocytosis uncovers a link between membrane and nuclear proteins

**Urae, S., Harita, Y., Udagawa, T., Ode, K. L., Nagahama, M., Kajihō, Y., Kanda, S., Saito, A., Ueda, H. R., Nangaku, M. and Oka, A.**

jcs242859

The Mre11–Rad50–Nbs1 complex mediates the robust recruitment of Polo to DNA lesions during mitosis in *Drosophila*

**Landmann, C., Pierre-Elies, P., Goutte-Gattat, D., Montembault, E., Claverie, M.-C. and Royou, A.**

jcs244442