



**Cover:** A super-resolution structured illumination microscopy image of the ciliate *Tetrahymena thermophila* with immunofluorescence labelling of polyglycylated tubulin (green) and centrioles (red). DNA is stained using DAPI (blue). See article by C. Lee et al. ([jcs261256](#)).

## SPECIAL ISSUE Cell and Tissue Polarity

### EDITORIAL

Special Issue – Cell and Tissue Polarity

**Bryant, D. M.**

[jcs262000](#)

### CELL SCIENTISTS TO WATCH

Cell scientist to watch – Ginny G. Farías

[jcs261992](#)

Cell scientist to watch – Dan Dickinson

[jcs261964](#)

### PERSPECTIVE

Perspectives on polarity – exploring biological asymmetry across scales

**Glazenburg, M. M., Hetteema, N. M., Laan, L., Remy, O., Laloux, G., Brunet, T., Chen, X., Tee, Y. H., Wen, W., Rizvi, M. S., Jolly, M. K. and Riddell, M.**

[jcs261987](#)

### CELL SCIENCE AT A GLANCE

The *Drosophila* neuroblast polarity cycle at a glance

**Penkert, R. R., LaFoya, B., Moholt-Siebert, L., Vargas, E., Welch, S. E. and Prehoda, K. E.**

[jcs261789](#)

Polarity establishment in the plant zygote at a glance

**Matsumoto, H. and Ueda, M.**

[jcs261809](#)

### REVIEWS

Inverted apicobasal polarity in health and disease

**Pasquier, N., Jaulin, F. and Peglion, F.**

[jcs261659](#)

The contribution of asymmetric cell division to phenotypic heterogeneity in cancer

**Buss, J. H., Begnini, K. R. and Lenz, G.**

[jcs261400](#)

### SHORT REPORTS

TIAM-1 regulates polarized protrusions during dorsal intercalation in the *Caenorhabditis elegans* embryo through both its GEF and N-terminal domains

**Zhu, Y., Tesone, Z., Tan, M. and Hardin, J.**

[jcs261509](#)

Integrin-based adhesions promote cell–cell junction and cytoskeletal remodelling to drive embryonic wound healing

**Ly, M., Schimmer, C., Hawkins, R., Rothenberg, K. E. and Fernandez-Gonzalez, R.**

[jcs261138](#)

Cdc42 couples septin recruitment to the axial landmark assembly via Axl2 in budding yeast

**Kang, P. J., Mullner, R., Lian, K. and Park, H.-O.**

[jcs261080](#)

### RESEARCH ARTICLES

MUC13 negatively regulates tight junction proteins and intestinal epithelial barrier integrity via protein kinase C

**Segui-Perez, C., Stapels, D. A. C., Ma, Z., Su, J., Passchier, E., Westendorp, B., Wubbolts, R. W., Wu, W., van Putten, J. P. M. and Strijbis, K.**

[jcs261468](#)

Steroid hormone signaling synchronizes cell migration machinery, adhesion and polarity to direct collective movement

**Bhattacharya, M. and Starz-Gaiano, M.**

[jcs261164](#)

PALS1 is a key regulator of the lateral distribution of tight junction proteins in renal epithelial cells

**Groh, A.-C., Möller-Kerutt, A., Gilhaus, K., Höffken, V., Nedvetsky, P., Kleimann, S., Behrens, M., Ghosh, S., Hansen, U., Krahn, M. P., Ebnet, K., Pavenstädt, H., Ludwig, A. and Weide, T.**

[jcs261303](#)

Polo-like kinase 1 regulates immune synapse assembly and cytotoxic T cell function by driving microtubule dynamics

**Zevolini, F., Onnis, A., Khazen, R., Müller, S., Marotta, G., Valitutti, S., Finetti, F. and Baldari, C. T.**

[jcs261476](#)

Regulation of the apico-basolateral trafficking polarity of the homologous copper-ATPases ATP7A and ATP7B

**Ruturaj, Mishra, M., Saha, S., Maji, S., Rodriguez-Boulan, E., Schreiner, R. and Gupta, A.**

[jcs261258](#)

Interplay between the plasma membrane and cell–cell adhesion maintains epithelial identity for correct polarised cell divisions

**Hosawi, M. M., Cheng, J., Fankhaenel, M., Przewloka, M. R. and Elias, S.**

[jcs261701](#)

Crb3 is required to organize the apical domain of multiciliated cells

**Burcklé, C., Raitière, J., Michaux, G., Kodjabachian, L. and Le Bivic, A.**

[jcs261046](#)

The epithelial polarity axis controls the resting membrane potential and Cl<sup>-</sup> co-transport in breast glandular structures  
**Urazaev, A. K., Wang, L., Bai, Y., Adissu, H. A. and Lelièvre, S. A.**  
jcs260924

Global and local functions of the Fused kinase ortholog CdaH in intracellular patterning in *Tetrahymena*  
**Lee, C., Maier, W., Jiang, Y.-Y., Nakano, K., Lechtreck, K. F. and Gaertig, J.**  
jcs261256

Fat2 polarizes Lar and Sema5c to coordinate the motility of collectively migrating epithelial cells  
**Williams, A. M. and Horne-Badovinac, S.**  
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HOPS-dependent lysosomal fusion controls Rab19 availability for ciliogenesis in polarized epithelial cells  
**Hoffman, H. K. and Prekeris, R.**  
jcs261047

Paracingulin recruits CAMSAP3 to tight junctions and regulates microtubule and polarized epithelial cell organization  
**Fliinois, A., Méan, I., Mutero-Maeda, A., Guillemot, L. and Citi, S.**  
jcs260745

## TOOLS AND RESOURCES

Trophoblast organoids with physiological polarity model placental structure and function  
**Yang (杨利恒), L., Liang, P., Yang, H. and Coyne, C. B.**  
jcs261528

## FIRST PERSON

First person – Celia Segui-Perez  
jcs262029

First person – Ann-Christin Groh and Annika Möller-Kerutt  
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First person – Mallika Bhattacharya  
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First person – Fabrizia Zevolini  
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First person – Michelle Ly  
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First person – Liheng Yang (杨利恒)  
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First person – Raturaj  
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