



**Cover:** Image showing the mouse meiotic spindle superstructure. The developing meiotic spindle in the mouse oocyte is enveloped by the endoplasmic reticulum (red) and mitochondria (green). Chromatin is shown in blue. At cytokinesis, the oocyte performs a remarkable feat to distribute half the chromosomes to the polar body while retaining the organelles. This preferential distribution of mitochondria ensures that the oocyte retains organelles essential for ATP production during early embryo development. See article by C. M. Dalton and J. Carroll (pp. 2955–2964).

### Sticky Wicket

2749 **Thumbs Up, Thumbs Down.** Mole

### Commentaries

2751 **Sorting receptor SORLA – a trafficking path to avoid Alzheimer disease.** Willnow, T. E. and Andersen, O. M.

2761 **A multiscale road map of cancer spheroids – incorporating experimental and mathematical modelling to understand cancer progression.** Loessner, D., Little, J. P., Pettet, G. J. and Huttmacher, D. W.

2773 **Building a fission machine – structural insights into dynamin assembly and activation.** Chappie, J. S. and Dyda, F.

### Research Articles

2785 **Cytoplasmic localization of DGK $\zeta$  exerts a protective effect against p53-mediated cytotoxicity.** Tanaka, T., Okada, M., Hozumi, Y., Tachibana, K., Kitanaka, C., Hamamoto, Y., Martelli, A. M., Topham, M. K., Iino, M. and Goto, K.

2798 **Membrane-associated RING-CH (MARCH) 8 mediates the ubiquitination and lysosomal degradation of the transferrin receptor.** Fujita, H., Iwabu, Y., Tokunaga, K. and Tanaka, Y.

2810 **Molecular mechanisms of Tau binding to microtubules and its role in microtubule dynamics in live cells.** Breuzard, G., Hubert, P., Nouar, R., De Bessa, T., Devred, F., Barbier, P., Sturgis, J. N. and Peyrot, V.

2820 **A specific subset of RabGTPases controls cell surface exposure of MT1-MMP, extracellular matrix degradation and three-dimensional invasion of macrophages.** Wiesner, C., El Azzouzi, K. and Linder, S.

2834 **Heterogeneity in sexual bipotentiality and plasticity of granulosa cells in developing mouse ovaries.** Harikae, K., Miura, K., Shinomura, M., Matoba, S., Hiramatsu, R., Tsunekawa, N., Kanai-Azuma, M., Kurohmaru, M., Morohashi, K.-i. and Kanai, Y.

2845 **Spatiotemporal organization of Aurora-B by APC/C<sup>Cdh1</sup> after mitosis coordinates cell spreading through FHOD1.** Floyd, S., Whiffin, N., Gavilan, M. P., Kutscheidt, S., De Luca, M., Marcozzi, C., Min, M., Watkins, J., Chung, K., Fackler, O. T. and Lindon, C.

2857 **Autosomal recessive *GJAI* (Cx43) gene mutations cause oculodentodigital dysplasia by distinct mechanisms.** Huang, T., Shao, Q., MacDonald, A., Xin, L., Lorentz, R., Bai, D. and Laird, D. W.

2867 **microRNA-125a-3p reduces cell proliferation and migration by targeting *Fyn*.** Ninio-Many, L., Grossman, H., Shomron, N., Chuderland, D. and Shalgi, R.

2877 **The Wnt- $\beta$ -catenin pathway represses *let-7* microRNA expression through transactivation of *Lin28* to augment breast cancer stem cell expansion.** Cai, W.-Y., Wei, T.-Z., Luo, Q.-C., Wu, Q.-W., Liu, Q.-F., Yang, M., Ye, G.-D., Wu, J.-F., Chen, Y.-Y., Sun, G.-B., Liu, Y.-J., Zhao, W.-X., Zhang, Z.-M. and Li, B.-A.

2890 **Sox9 modulates cell survival and adipogenic differentiation of multipotent adult rat mesenchymal stem cells.** Stöckl, S., Bauer, R. J., Bosserhoff, A. K., Göttl, C., Grifka, J. and Grässel, S.

2903 **The complement membrane attack complex triggers intracellular Ca<sup>2+</sup> fluxes leading to NLRP3 inflammasome activation.** Triantafilou, K., Hughes, T. R., Triantafilou, M. and Morgan, B. P.

2914 **Tracking Ca<sup>2+</sup>-dependent and Ca<sup>2+</sup>-independent conformational transitions in syntaxin 1A during exocytosis in neuroendocrine cells.** Greitzer-Antes, D., Barak-Broner, N., Berlin, S., Oron, Y., Chikvashvili, D. and Lotan, I.

2924 **The yeast cell cortical protein Num1 integrates mitochondrial dynamics into cellular architecture.** Klecker, T., Scholz, D., Förtsch, J. and Westermann, B.

2931 **The apical and basolateral secretion of Wnt11 and Wnt3a in polarized epithelial cells is regulated by different mechanisms.** Yamamoto, H., Awada, C., Hanaki, H., Sakane, H., Tsujimoto, I., Takahashi, Y., Takao, T. and Kikuchi, A.

2944 **Protein kinase A regulation of T-type Ca<sup>2+</sup> channels in rat cerebral arterial smooth muscle.** Harraz, O. F. and Welsh, D. G.

2955 **Biased inheritance of mitochondria during asymmetric cell division in the mouse oocyte.** Dalton, C. M. and Carroll, J.