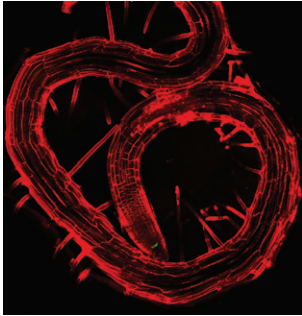
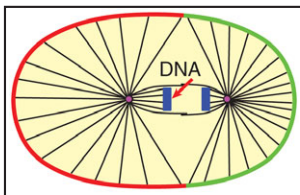


Development



Cover: Mutants in the plant steroid receptor BRI1 exhibit meristematic defects in root development that can be traced back to the stem cell niche (cell walls stained with propidium iodine, red; quiescent centre labelled with GFP marker, green). See **Research article by González-García et al. on p. 849.**



PAR proteins are conserved regulators of cell polarity, and recent studies, reviewed here by Nance and Zallen, have identified elaborate links between PAR proteins and cytoskeletal proteins that help to set up molecular asymmetries and hence establish polarity within a cell. See **Review on p. 799.**

REVIEW

- 799** Elaborating polarity: PAR proteins and the cytoskeleton
Nance, J. and Zallen, J. A.

DEVELOPMENT AND STEM CELLS

- 811** Dynamic stage-specific changes in imprinted differentially methylated regions during early mammalian development and prevalence of non-CpG methylation in oocytes
Tomizawa, S., Kobayashi, H., Watanabe, T., Andrews, S., Hata, K., Kelsey, G. and Sasaki, H.
- 821** Origin of muscle satellite cells in the *Xenopus* embryo
Daughters, R. S., Chen, Y. and Slack, J. M. W.
- 831** Asymmetric division of cyst stem cells in *Drosophila* testis is ensured by anaphase spindle repositioning
Cheng, J., Tiyaboonchai, A., Yamashita, Y. M. and Hunt, A. J.
- 839** Brassinosteroid perception in the epidermis controls root meristem size
Hacham, Y., Holland, N., Butterfield, C., Ubeda-Tomas, S., Bennett, M. J., Chory, J. and Savaldi-Goldstein, S.
- 849** Brassinosteroids control meristem size by promoting cell cycle progression in *Arabidopsis* roots
González-García, M.-P., Vilarrasa-Blasi, J., Zhiponova, M., Divol, F., Mora-García, S., Russinova, E. and Caño-Delgado, A. I.
- 861** Stage-specific signaling through TGF β family members and WNT regulates patterning and pancreatic specification of human pluripotent stem cells
Nostro, M. C., Sarangi, F., Ogawa, S., Holtzinger, A., Corneo, B., Li, X., Micallef, S. J., Park, I.-H., Basford, C., Wheeler, M. B., Daley, G. Q., Elefanty, A. G., Stanley, E. G. and Keller, G.

RESEARCH REPORTS

- 873** Lack of the ventral anterior homeodomain transcription factor VAX1 leads to induction of a second pituitary
Bharti, K., Gasper, M., Bertuzzi, S. and Arnheiter, H.
- 879** Minor change, major difference: divergent functions of highly conserved cis-regulatory elements subsequent to whole genome duplication events
Goode, D. K., Callaway, H. A., Cerda, G. A., Lewis, K. E. and Elgar, G.

RESEARCH ARTICLES

- 885** Mos limits the number of meiotic divisions in urochordate eggs
Dumollard, R., Levasseur, M., Hebras, C., Huitorel, P., Carroll, M., Chambon, J.-P. and McDougall, A.
- 897** *Dlx5* and *Dlx6* expression in the anterior neural fold is essential for patterning the dorsal nasal capsule
Gitton, Y., Benouaiche, L., Vincent, C., Heude, E., Soulika, M., Bouhali, K., Couly, G. and Levi, G.
- 905** The APC/C activator FZR1 coordinates the timing of meiotic resumption during prophase I arrest in mammalian oocytes
Holt, J. E., Tran, S. M.-T., Stewart, J. L., Minahan, K., García-Higuera, I., Moreno, S. and Jones, K. T.

- 915 Capicua DNA-binding sites are general response elements for RTK signaling in *Drosophila*
Ajuria, L., Nieva, C., Winkler, C., Kuo, D., Samper, N., Andreu, M. J., Helman, A., González-Crespo, S., Paroush, Z., Courey, A. J. and Jiménez, G.
- 925 Smad1 and its target gene *Wif1* coordinate BMP and Wnt signaling activities to regulate fetal lung development
Xu, B., Chen, C., Chen, H., Zheng, S.-G., Bringas, P., Jr, Xu, M., Zhou, X., Chen, D., Umans, L., Zwijsen, A. and Shi, W.
- 937 The control of *foxN2/3* expression in sea urchin embryos and its function in the skeletogenic gene regulatory network
Rho, H. K. and McClay, D. R.
- 947 Characterization of a *Dchs1* mutant mouse reveals requirements for Dchs1-Fat4 signaling during mammalian development
Mao, Y., Mulvaney, J., Zakaria, S., Yu, T., Morgan, K. M., Allen, S., Basson, M. A., Francis-West, P. and Irvine, K. D.
- 959 β -Catenin specifies the endomesoderm and defines the posterior organizer of the hemichordate *Saccoglossus kowalevskii*
Darras, S., Gerhart, J., Terasaki, M., Kirschner, M. and Lowe, C. J.
- 971 Signaling through BMP receptors promotes respiratory identity in the foregut via repression of *Sox2*
Domyan, E. T., Ferretti, E., Throckmorton, K., Mishina, Y., Nicolis, S. K. and Sun, X.
- 983 Concentric zones, cell migration and neuronal circuits in the *Drosophila* visual center
Hasegawa, E., Kitada, Y., Kaido, M., Takayama, R., Awasaki, T., Tabata, T. and Sato, M.
- 995 Neuronal subtype specification in the spinal cord of a protovertebrate
Stolfi, A. and Levine, M.
- 1005 Cooperative activity of noggin and gremlin 1 in axial skeleton development
Stafford, D. A., Brunet, L. J., Khokha, M. K., Economides, A. N. and Harland, R. M.
- 1015 Corrigendum