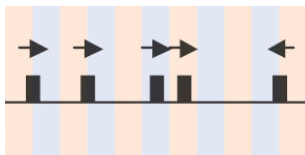


# Development



**Cover:** Understanding the developmental signals that enable cells to build complex tissue and organ structures may lead to major advances in regenerative medicine. Here, two ectopic limbs have been induced in *Xenopus laevis* by modulating expression of K<sup>+</sup> channels and thereby altering bioelectrical signaling in the early embryo (image courtesy of Sherry Aw). **See meeting review by Ingber and Levin on p. 2541.**



Hox genes occur in all bilaterian animals. In some species, these genes are clustered, but in others they are not. As discussed by Denis Duboule in this issue, such clusters may have evolved towards more organised states through a process of consolidation, which might have been stimulated or reinforced after gene duplication events. **See review on p. 2549.**

## MEETING REVIEW

- 2541** What lies at the interface of regenerative medicine and developmental biology?  
Ingber, D. E. and Levin, M.

## REVIEW

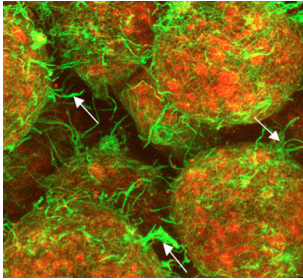
- 2549** The rise and fall of Hox gene clusters  
Duboule, D.

## RESEARCH REPORT

- 2561** *AMP1* and *MP* antagonistically regulate embryo and meristem development in *Arabidopsis*  
Vidaurre, D. P., Ploense, S., Krogan, N. T. and Berleth, T.

## RESEARCH ARTICLES

- 2569** Ftm is a novel basal body protein of cilia involved in Shh signalling  
Vierkotten, J., Dildrop, R., Peters, T., Wang, B. and Rüther, U.
- 2579** Involvement of vessels and PDGFB in muscle splitting during chick limb development  
Tozer, S., Bonnin, M.-A., Relaix, F., Di Savino, S., García-Villalba, P., Coumilleau, P. and Duprez, D.
- 2593** Oocyte-derived BMP15 and FGFs cooperate to promote glycolysis in cumulus cells  
Sugiura, K., Su, Y.-Q., Diaz, F. J., Pangas, S. A., Sharma, S., Wigglesworth, K., O'Brien, M. J., Matzuk, M. M., Shimasaki, S. and Eppig, J. J.
- 2605** A *Drosophila* ortholog of the human cylindromatosis tumor suppressor gene regulates triglyceride content and antibacterial defense  
Tsichritzis, T., Gaentzsch, P. C., Kosmidis, S., Brown, A. E., Skoulakis, E. M., Ligoxygakis, P. and Mosialos, G.
- 2615** Defective osteoblast function in ICAP-1-deficient mice  
Bouvard, D., Aszodi, A., Kostka, G., Block, M. R., Albigès-Rizo, C. and Fässler, R.
- 2627** Cellular dynamics associated with the genome-wide epigenetic reprogramming in migrating primordial germ cells in mice  
Seki, Y., Yamaji, M., Yabuta, Y., Sano, M., Shigeta, M., Matsui, Y., Saga, Y., Tachibana, M., Shinkai, Y. and Saitou, M.
- 2639** Cohesin-dependent regulation of Runx genes  
Horsfield, J. A., Anagnostou, S. H., Hu, J. K.-H., Cho, K. H. Y., Geisler, R., Lieschke, G., Crosier, K. E. and Crosier, P. S.
- 2651** G-protein-coupled signals control cortical actin assembly by controlling cadherin expression in the early *Xenopus* embryo  
Tao, Q., Nandadasa, S., McCrea, P. D., Heasman, J. and Wylie, C.
- 2663** Common regulatory networks in leaf and fruit patterning revealed by mutations in the *Arabidopsis* *ASYMMETRIC LEAVES1* gene  
Alonso-Cantabrana, H., Ripoll, J. J., Ochando, I., Vera, A., Ferrándiz, C. and Martínez-Laborda, A.
- 2673** Retinoic acid counteracts developmental defects in the substantia nigra caused by Pitx3 deficiency  
Jacobs, F. M. J., Smits, S. M., Noorlander, C. W., von Oerthel, L., van der Linden, A. J. A., Burbach, J. P. H. and Smidt, M. P.
- 2685** Binary cell fate specification during *C. elegans* embryogenesis driven by reiterated reciprocal asymmetry of TCF POP-1 and its coactivator  $\beta$ -catenin SYS-1  
Huang, S., Shetty, P., Robertson, S. M. and Lin, R.



Cortical actin (green) assembly is lost in this *Xenopus* animal cap, in which mutated C-cadherin (red) that cannot bind  $\beta$ -catenin is expressed. In this study, Tao et al. reveal that the expression of C-cadherin at the cell surface, in conjunction with p120 catenin, is required for cortical actin assembly. **See research article on p. 2651.**

- 2697** Regulation of tendon differentiation by scleraxis distinguishes force-transmitting tendons from muscle-anchoring tendons  
**Murchison, N. D., Price, B. A., Conner, D. A., Keene, D. R., Olson, E. N., Tabin, C. J. and Schweitzer, R.**