



**Cover:** Central longitudinal section of an *Arabidopsis* seed, taken from a three-dimensional reconstruction created using the modified pseudo-Schiff propidium iodide imaging technique. The innermost epidermal integument cell layer is highlighted in yellow whereas the sub-epidermal cell layers are marked in red and green. **See Research report by Coen et al. on p. 1490.**

### CORRESPONDENCE

- 1363** Methodological issues limit interpretation of negative effects of satellite cell depletion on adult muscle hypertrophy  
**McCarthy, J. J., Dupont-Versteegden, E. E., Fry, C. S., Murach, K. A. and Peterson, C. A.**
- 1365** An apparent lack of effect of satellite cell depletion on hypertrophy could be due to methodological limitations. Response to 'Methodological issues limit interpretation of negative effects of satellite cell depletion on adult muscle hypertrophy'  
**Egner, I. M., Bruusgaard, J. C. and Gundersen, K.**

### REVIEWS

- 1368** Stem cell therapies for retinal diseases: recapitulating development to replace degenerated cells  
**Zhao, C., Wang, Q. and Temple, S.**
- 1382** Prostate organogenesis: tissue induction, hormonal regulation and cell type specification  
**Toivanen, R. and Shen, M. M.**

### HUMAN DEVELOPMENT

- 1399** The human chorion contains definitive hematopoietic stem cells from the fifteenth week of gestation  
**Muench, M. O., Kapidzic, M., Gormley, M., Gutierrez, A. G., Ponder, K. L., Fomin, M. E., Beyer, A. I., Stolp, H., Qi, Z., Fisher, S. J. and Bárcena, A.**

### STEM CELLS AND REGENERATION

- 1412** FGF and canonical Wnt signaling cooperate to induce paraxial mesoderm from tailbud neuromesodermal progenitors through regulation of a two-step epithelial to mesenchymal transition  
**Goto, H., Kimmey, S. C., Row, R. H., Matus, D. Q. and Martin, B. L.**
- 1425** Notch signalling restricts inflammation and *serpine1* expression in the dynamic endocardium of the regenerating zebrafish heart  
**Münch, J., Grivas, D., González-Rajal, Á., Torregrosa-Carrión, R. and de la Pompa, J. L.**
- 1441** The role of variant histone H2AV in *Drosophila melanogaster* larval hematopoiesis  
**Grigorian, M., DeBruhl, H. and Lipsick, J. S.**
- 1450** The chromatin modifier Satb1 regulates cell fate through Fgf signalling in the early mouse embryo  
**Goolam, M. and Zernicka-Goetz, M.**

- 1462** Distinct roles of neuroepithelial-like and radial glia-like progenitor cells in cerebellar regeneration  
**Kaslin, J., Kroehne, V., Ganz, J., Hans, S. and Brand, M.**

### RESEARCH REPORTS

- 1472** MpWIP regulates air pore complex development in the liverwort *Marchantia polymorpha*  
**Jones, V. A. S. and Dolan, L.**
- 1477** Stomach curvature is generated by left-right asymmetric gut morphogenesis  
**Davis, A., Amin, N. M., Johnson, C., Bagley, K., Ghashghaei, H. T. and Nascone-Yoder, N.**
- 1484** IP<sub>3</sub>R-mediated Ca<sup>2+</sup> release regulates protein metabolism in *Drosophila* neuroendocrine cells: implications for development under nutrient stress  
**Megha and Hasan, G.**
- 1490** Developmental patterning of the sub-epidermal integument cell layer in *Arabidopsis* seeds  
**Coen, O., Fiume, E., Xu, W., De Vos, D., Lu, J., Pechoux, C., Lepiniec, L. and Magnani, E.**

### RESEARCH ARTICLES

- 1498** Estrogen modulates mesenchyme-epidermis interactions in the adult nipple  
**Wu, H.-J., Oh, J. W., Spandau, D. F., Tholpady, S., Diaz, J., III, Schroeder, L. J., Offutt, C. D., Glick, A. B., Plikus, M. V., Koyama, S. and Foley, J.**
- 1510** Prevention of medulla neuron dedifferentiation by Nerfin-1 requires inhibition of Notch activity  
**Xu, J., Hao, X., Yin, M.-X., Lu, Y., Jin, Y., Xu, J., Ge, L., Wu, W., Ho, M., Yang, Y., Zhao, Y. and Zhang, L.**
- 1518** Folate receptor 1 is necessary for neural plate cell apical constriction during *Xenopus* neural tube formation  
**Balashova, O. A., Visina, O. and Borodinsky, L. N.**
- 1531** A systems-level approach reveals new gene regulatory modules in the developing ear  
**Chen, J., Tambalo, M., Barembaum, M., Ranganathan, R., Simões-Costa, M., Bronner, M. E. and Streit, A.**
- 1544** IFT56 regulates vertebrate developmental patterning by maintaining IFTB complex integrity and ciliary microtubule architecture  
**Xin, D., Christopher, K. J., Zeng, L., Kong, Y. and Weatherbee, S. D.**

- 1554** Distinct and redundant functions of Esama and VE-cadherin during vascular morphogenesis  
**Sauteur, L., Affolter, M. and Belting, H.-G.**
- 1566** Helios expression coordinates the development of a subset of striatopallidal medium spiny neurons  
**Martín-Ibáñez, R., Pardo, M., Giral, A., Miguez, A., Guardia, I., Marion-Poll, L., Herranz, C., Esgleas, M., Garcia-Díaz Barriga, G., Edel, M. J., Vicario-Abejón, C., Alberch, J., Girault, J.-A., Chan, S., Kastner, P. and Canals, J. M.**

**CORRECTIONS**

- 1578** Correction: Neural specificity of the RNA-binding protein Elav is achieved by post-transcriptional repression in non-neural tissues  
**Sanfilippo, P., Smibert, P., Duan, H. and Lai, E. C.**
- 1579** Correction: An anterior signaling center patterns and sizes the anterior neuroectoderm of the sea urchin embryo  
**Range, R. C. and Wei, Z.**