



Cover: An E11 chick embryo (bottom) and E10 quail embryo (top). Duplication of the first pharyngeal arch and loss of the second pharyngeal arch in chick-quail chimeras reveals their contribution to tympanic membrane formation. See **Research article** by Furutera et al. on p. 3315.

SPOTLIGHT

- 3189 An interview with George Daley
Maartens, A.

MEETING REVIEW

- 3193 Metabolism in time and space – exploring the frontier of developmental biology
Krejci, A. and Tennessen, J. M.

PRIMER

- 3199 The enigma of embryonic diapause
Renfree, M. B. and Fenelon, J. C.

STEM CELLS AND REGENERATION

- 3211 The *miR-124* family of microRNAs is crucial for regeneration of the brain and visual system in the planarian *Schmidtea mediterranea*
Sasidharan, V., Marepally, S., Elliott, S. A., Baid, S., Lakshmanan, V., Nayyar, N., Bansal, D., Sánchez Alvarado, A., Vemula, P. K. and Palakodeti, D.
- 3224 Engrailed acts with Nejure to control *decapentaplegic* expression in the *Drosophila* ovarian stem cell niche
Luo, L., Siah, C. K. and Cai, Y.

RESEARCH ARTICLES

- 3232 H2Av facilitates H3S10 phosphorylation but is not required for heat shock-induced chromatin decondensation or transcriptional elongation
Li, Y., Wang, C., Cai, W., Sengupta, S., Zavortink, M., Deng, H., Girton, J., Johansen, J. and Johansen, K. M.
- 3241 Endothelial cells respond to the direction of mechanical stimuli through SMAD signaling to regulate coronary artery size
Poduri, A., Chang, A. H., Raffrey, B., Rhee, S., Van, M. and Red-Horse, K.
- 3253 Cytoskeletal variations in an asymmetric cell division support diversity in nematode sperm size and sex ratios
Winter, E. S., Schwarz, A., Fabig, G., Feldman, J. L., Pires-daSilva, A., Müller-Reichert, T., Sadler, P. L. and Shakes, D. C.
- 3264 Maternal expression of the histone demethylase Kdm4a is crucial for pre-implantation development
Sankar, A., Kooistra, S. M., Gonzalez, J. M., Ohlsson, C., Poutanen, M. and Helin, K.
- 3278 *Fgf10*⁺ progenitors give rise to the chick hypothalamus by rostral and caudal growth and differentiation
Fu, T., Towers, M. and Placzek, M. A.

- 3289 Hypothalamic sonic hedgehog is required for cell specification and proliferation of LHX3/LHX4 pituitary embryonic precursors
Carreno, G., Apps, J. R., Lodge, E. J., Panousopoulos, L., Haston, S., Gonzalez-Meljem, J. M., Hahn, H., Andoniadou, C. L. and Martinez-Barbera, J. P.
- 3303 Dnmt1-dependent Chk1 pathway suppression is protective against neuron division
Oshikawa, M., Okada, K., Tabata, H., Nagata, K. I. and Ajioka, I.
- 3315 Differing contributions of the first and second pharyngeal arches to tympanic membrane formation in the mouse and chick
Furutera, T., Takechi, M., Kitazawa, T., Takei, J., Yamada, T., Vu Hoang, T., Rijli, F. M., Kurihara, H., Kuratani, S. and Iseki, S.
- 3325 *Pitx1* directly modulates the core limb development program to implement hindlimb identity
Nemec, S., Luxey, M., Jain, D., Huang Sung, A., Pastinen, T. and Drouin, J.
- 3336 Transgelin-expressing myofibroblasts orchestrate ventral midline closure through TGF β signalling
Aldeiri, B., Roostalu, U., Albertini, A., Wong, J., Morabito, A. and Cossu, G.
- 3349 Distinct functions for netrin 1 in chicken and murine semicircular canal morphogenesis
Nishitani, A. M., Ohta, S., Yung, A. R., del Rio, T., Gordon, M. I., Abraira, V. E., Avilés, E. C., Schoenwolf, G. C., Fekete, D. M. and Goodrich, L. V.
- 3361 Vegetally localised Vrtn functions as a novel repressor to modulate *bmp2b* transcription during dorsoventral patterning in zebrafish
Shao, M., Wang, M., Liu, Y.-Y., Ge, Y.-W., Zhang, Y.-J. and Shi, D.-L.

TECHNIQUES AND RESOURCES

- 3375 Functional and evolutionary insights from the *Ciona* notochord transcriptome
Reeves, W. M., Wu, Y., Harder, M. J. and Veeman, M. T.

CORRECTION

- 3388 Correction: 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.