

Development



Cover: Sections of an E18.5 mouse embryo stained with Hematoxylin and Eosin (left), and with X-gal (blue, right). The X-gal staining represents transcriptional activity of the endogenous cyclin-dependent kinase 1 (*Cdk1*) locus. See research article by Satyanarayana et al. on page 3389.



In their 1983 *JEEM* paper, Smith and Slack repeated in *Xenopus laevis* the famous newt organizer-grafting experiments of Spemann and Mangold, and showed unambiguously for the first time that the organizer is responsible for neural induction and dorsalization of the mesoderm. See *JEEM* classic on p. 3321.

JEEM CLASSIC

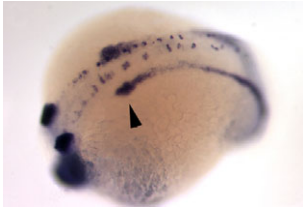
- 3321** Induction into the Hall of Fame: tracing the lineage of Spemann's organizer
Harland, R.

RESEARCH REPORT

- 3325** Temporal progression of hypothalamic patterning by a dual action of BMP
Ohyama, K., Das, R. and Placzek, M.

RESEARCH ARTICLES

- 3333** A functional role for semaphorin 4D/plexin B1 interactions in epithelial branching morphogenesis during organogenesis
Korostylev, A., Worzfeld, T., Deng, S., Friedel, R. H., Swiercz, J. M., Vodrazka, P., Maier, V., Hirschberg, A., Ohoka, Y., Inagaki, S., Offermanns, S. and Kuner, R.
- 3345** Interaction of PIN and PGP transport mechanisms in auxin distribution-dependent development
Mravec, J., Kubeš, M., Bielach, A., Gaykova, V., Petrášek, J., Skúpa, P., Chand, S., Benková, E., Zažímalová, E. and Friml, J.
- 3355** *odd skipped related1* reveals a novel role for endoderm in regulating kidney versus vascular cell fate
Mudumana, S. P., Hentschel, D., Liu, Y., Vasilyev, A. and Drummond, I. A.
- 3369** Rostral hindbrain patterning involves the direct activation of a *Krox20* transcriptional enhancer by Hox/Pbx and Meis factors
Wassef, M. A., Chomette, D., Pouilhe, M., Stedman, A., Havis, E., Desmarquet-Trin Dinh, C., Schneider-Maunoury, S., Gilardi-Hebenstreit, P., Charnay, P. and Ghislain, J.
- 3379** Rewiring the retinal ganglion cell gene regulatory network: Neurod1 promotes retinal ganglion cell fate in the absence of Math5
Mao, C.-A., Wang, S. W., Pan, P. and Klein, W. H.
- 3389** Genetic substitution of Cdk1 by Cdk2 leads to embryonic lethality and loss of meiotic function of Cdk2
Satyanarayana, A., Berthet, C., Lopez-Molina, J., Coppola, V., Tessarollo, L. and Kaldis, P.
- 3401** Dopaminergic neuronal cluster size is determined during early forebrain patterning
Russek-Blum, N., Gutnick, A., Nabel-Rosen, H., Blechman, J., Staudt, N., Dorsky, R. I., Houart, C. and Levkowitz, G.
- 3415** Progressive restriction of otic fate: the role of FGF and Wnt in resolving inner ear potential
Freter, S., Muta, Y., Mak, S.-S., Rinkwitz, S. and Ladher, R. K.
- 3425** *Eya4* regulation of Na⁺/K⁺-ATPase is required for sensory system development in zebrafish
Wang, L., Sewell, W. F., Kim, S. D., Shin, J. T., MacRae, C. A., Zon, L. I., Seidman, J. G. and Seidman, C. E.
- 3435** Antagonistic roles for *Ultrabithorax* and *Antennapedia* in regulating segment-specific apoptosis of differentiated motoneurons in the *Drosophila* embryonic central nervous system
Rogulja-Ortmann, A., Renner, S. and Technau, G. M.
- 3447** Numb mediates the interaction between Wnt and Notch to modulate primitive erythropoietic specification from the hemangioblast
Cheng, X., Huber, T. L., Chen, V. C., Gadue, P. and Keller, G. M.



Expression of *pax2a* in a 14-somite, wild-type zebrafish embryo from a study that reports that, in the absence of the *odd skipped related1 (osr1)* gene, excess endoderm alters mesoderm differentiation, shifting the balance from kidney towards vascular development. **See research article on p. 3355.**

DEVELOPMENT AND DISEASE

- 3459** Anterior-posterior graded response to Otx2 controls proliferation and differentiation of dopaminergic progenitors in the ventral mesencephalon
Omodei, D., Acampora, D., Mancuso, P., Prakash, N., Di Giovannantonio, L. G., Wurst, W. and Simeone, A.
- 3471** Corrigendum
- 3473** Erratum