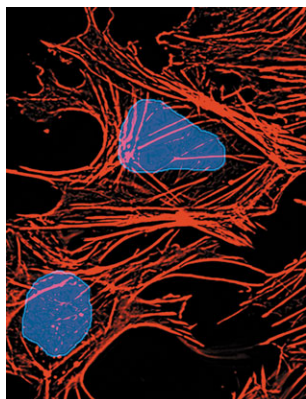
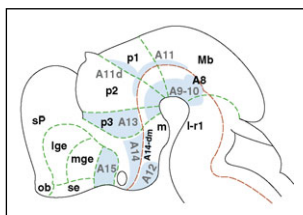


Development



Cover: Cardiac neural crest cells derived from the connexin 43 knockout mouse exhibit altered cell motility associated with a fundamental change in their actin cytoskeleton. Phalloidin staining (red) shows actin stress fibers in connexin 43 deficient crest cells organized in a polygonal network, rather than in parallel stress fiber bundle arrays as seen in wild-type cardiac crest cells. Nuclei are stained with DAPI (blue). See research article by Xu et al. on p. 3629.



Midbrain dopaminergic neuron loss is associated with a very common human neurological disorder, Parkinson's disease (PD), yet little is known about this neuron's specification. As Siew-Lan Ang reviews here, the recent identification of major transcriptional determinants that regulate this neuron's development has brought much excitement to this field and should advance efforts to differentiate midbrain dopaminergic neurons in vitro for use in treating PD. See review article on p. 3499.

CORRESPONDENCE

- 3497** Cartilage in osteoarthritic joints is not automatically osteoarthritic cartilage
Aigner, T.

REVIEW

- 3499** Transcriptional control of midbrain dopaminergic neuron development
Ang, S.-L.

RESEARCH ARTICLES

- 3507** CDC-42 and RHO-1 coordinate acto-myosin contractility and PAR protein localization during polarity establishment in *C. elegans* embryos
Schonegg, S. and Hyman, A. A.
- 3517** Fork head and Sage maintain a uniform and patent salivary gland lumen through regulation of two downstream target genes, *PH4αSG1* and *PH4αSG2*
Abrams, E. W., Mihoulides, W. K. and Andrew, D. J.
- 3529** Organization of the peripheral fly eye: the roles of Snail family transcription factors in peripheral retinal apoptosis
Lim, H.-Y. and Tomlinson, A.
- 3539** Temporal regulation of shoot development in *Arabidopsis thaliana* by *miR156* and its target *SPL3*
Wu, G. and Poethig, R. S.
- 3549** Dynamic regulation of *Drosophila* nuclear receptor activity in vivo
Palanker, L., Necakov, A. S., Sampson, H. M., Ni, R., Hu, C., Thummel, C. S. and Krause, H. M.
- 3563** Small molecule-induced ablation and subsequent regeneration of larval zebrafish melanocytes
Yang, C.-T. and Johnson, S. L.
- 3575** The dwarf phenotype of the *Arabidopsis acl5* mutant is suppressed by a mutation in an upstream ORF of a bHLH gene
Imai, A., Hanzawa, Y., Komura, M., Yamamoto, K. T., Komeda, Y. and Takahashi, T.
- 3587** Mesodermal expression of *Tbx1* is necessary and sufficient for pharyngeal arch and cardiac outflow tract development
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- 3597** Deleted in cancer 1 (DICE1) is an essential protein controlling the topology of the inner mitochondrial membrane in *C. elegans*
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- 3607** Development of heart valves requires *Gata4* expression in endothelial-derived cells
Rivera-Feliciano, J., Lee, K.-H., Kong, S. W., Rajagopal, S., Ma, Q., Springer, Z., Izumo, S., Tabin, C. J. and Pu, W. T.
- 3619** Fetal spleen stroma drives macrophage commitment
Bertrand, J. Y., Desanti, G. E., Lo-Man, R., Leclerc, C., Cumano, A. and Golub, R.
- 3629** Connexin 43-mediated modulation of polarized cell movement and the directional migration of cardiac neural crest cells
Xu, X., Francis, R., Wei, C. J., Linask, K. L. and Lo, C. W.
- 3641** The transcription factor ZBP-89 controls generation of the hematopoietic lineage in zebrafish and mouse embryonic stem cells
Li, X., Xiong, J.-W., Shelley, C. S., Park, H. and Arnaout, M. A.



lacZ whole-mount in situ hybridization in an E9.5 BAT-gal transgenic mouse embryo, in which Tcf/ β -catenin binding sites regulate *lacZ* expression. In this study, Borello et al. report that *Myf5* is a direct Wnt/ β -catenin target, and that its full activation requires a cooperative interaction between the canonical Wnt and the Shh/Gli pathways in muscle progenitor cells. **See research article on p. 3723.**

- 3651** Kermit 2/XGIPC, an IGF1 receptor interacting protein, is required for IGF signaling in *Xenopus* eye development
Wu, J., O'Donnell, M., Gitler, A. D. and Klein, P. S.
- 3661** Gli3-mediated repression of Hedgehog targets is required for normal mammary development
Hatsell, S. J. and Cowin, P.
- 3671** Derivation and large-scale expansion of multipotent astroglial neural progenitors from adult human brain
Walton, N. M., Sutter, B. M., Chen, H.-X., Chang, L.-J., Roper, S. N., Scheffler, B. and Steindler, D. A.
- 3683** COUP-TFI controls Notch regulation of hair cell and support cell differentiation
Tang, L. S., Alger, H. M. and Pereira, F. A.
- 3695** Wnt/ β -catenin signaling interacts differentially with Ihh signaling in controlling endochondral bone and synovial joint formation
Mak, K. K., Chen, M.-H., Day, T. F., Chuang, P.-T. and Yang, Y.
- 3709** Hex acts with β -catenin to regulate anteroposterior patterning via a Groucho-related co-repressor and Nodal
Zamparini, A. L., Watts, T., Gardner, C. E., Tomlinson, S. R., Johnston, G. I. and Brickman, J. M.
- 3723** The Wnt/ β -catenin pathway regulates Gli-mediated *Myf5* expression during somitogenesis
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