



Cover: Serial confocal sections through a region near the tip of a 5-day-old embryonic stem cell aggregate that had been exposed to Chiron during day 3. It was stained for Sox1 (blue) and Sox2 (green) that highlight neural progenitors, and for Sox17 (red), revealing an endodermal derivative. See **Research article** by van den Brink et al. on p. 4231.

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- 4231** Symmetry breaking, germ layer specification and axial organisation in aggregates of mouse embryonic stem cells
van den Brink, S. C., Baillie-Johnson, P., Balayo, T., Hadjantonakis, A.-K., Nowotschin, S., Turner, D. A. and Martinez Arias, A.
- 4243** Wnt/ β -catenin and FGF signalling direct the specification and maintenance of a neuromesodermal axial progenitor in ensembles of mouse embryonic stem cells
Turner, D. A., Hayward, P. C., Baillie-Johnson, P., Rué, P., Broome, R., Faunes, F. and Martinez Arias, A.
- 4254** SOX9 accelerates ESC differentiation to three germ layer lineages by repressing SOX2 expression through P21 (WAF1/CIP1)
Yamamizu, K., Schlessinger, D. and Ko, M. S. H.
- 4267** Induction of diverse cardiac cell types by reprogramming fibroblasts with cardiac transcription factors
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- 4298** The zinc-finger protein basonuclin 2 is required for proper mitotic arrest, prevention of premature meiotic initiation and meiotic progression in mouse male germ cells
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- 4311** Class I KNOX transcription factors promote differentiation of cambial derivatives into xylem fibers in the *Arabidopsis* hypocotyl
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- 4320** TBX1 regulates epithelial polarity and dynamic basal filopodia in the second heart field
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- 4332** Stat3-Efemp2a modulates the fibrillar matrix for cohesive movement of prechordal plate progenitors
Zhang, T., Yin, C., Qiao, L., Jing, L., Li, H., Xiao, C., Luo, N., Lei, S., Meng, W., Zhu, H., Liu, J., Xu, H. and Mo, X.

- 4343** The polycomb component Ring1B regulates the timed termination of subcerebral projection neuron production during mouse neocortical development
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- 4354** Syndecan defines precise spindle orientation by modulating Wnt signaling in *C. elegans*
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- 4366** Specification of neuronal subtypes by different levels of Hunchback
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- 4375** Retinoic acid regulates size, pattern and alignment of tissues at the head-trunk transition
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- 4385** Dominant and context-specific control of endodermal organ allocation by Ptf1a
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- 4395** The UNC-6/Netrin receptors UNC-40/DCC and UNC-5 inhibit growth cone filopodial protrusion via UNC-73/Trio, Rac-like GTPases and UNC-33/CRMP
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