



**Cover:** 3D projection of an E18 mouse kidney stained for aquaporin 1 and Na-K-Cl co-transporter (green, loops of Henle), *Lotus tetragonolobus* lectin (red, proximal tubules) and DAPI (blue). Yellow staining highlights the proximal tubule and loop of Henle junctions. See **Research article** by **Basta et al.** on p 3080.

### MEETING REVIEW

- 3007** Advances in stem cells and regenerative medicine: single-cell dynamics, new models and translational perspectives  
**Twigger, A.-J. and Scheel, C. H.**

### REVIEWS

- 3012** Microtubule organization, dynamics and functions in differentiated cells  
**Muroyama, A. and Lechler, T.**
- 3022** The nature and dynamics of spermatogonial stem cells  
**de Rooij, D. G.**

### STEM CELLS AND REGENERATION

- 3031** *In vivo* genetic cell lineage tracing reveals that oviductal secretory cells self-renew and give rise to ciliated cells  
**Ghosh, A., Syed, S. M. and Tanwar, P. S.**
- 3042** Morphogen and community effects determine cell fates in response to BMP4 signaling in human embryonic stem cells  
**Nemashkalo, A., Ruzo, A., Heemskerk, I. and Warmflash, A.**
- 3054** Sonic hedgehog from both nerves and epithelium is a key trophic factor for taste bud maintenance  
**Castillo-Azofeifa, D., Losacco, J. T., Salcedo, E., Golden, E. J., Finger, T. E. and Barlow, L. A.**
- 3066** Cytoplasmic poly (A)-binding protein critically regulates epidermal maintenance and turnover in the planarian *Schmidtea mediterranea*  
**Bansal, D., Kulkarni, J., Nadahalli, K., Lakshmanan, V., Krishna, S., Sasidharan, V., Geo, J., Dilipkumar, S., Pasricha, R., Gulyani, A., Raghavan, S. and Palakodeti, D.**
- 3080** A Sall1-NuRD interaction regulates multipotent nephron progenitors and is required for loop of Henle formation  
**Basta, J. M., Robbins, L., Denner, D. R., Kolar, G. R. and Rauchman, M.**

### RESEARCH REPORT

- 3095** Functional regulatory evolution outside of the minimal *even-skipped* stripe 2 enhancer  
**Crocker, J. and Stern, D. L.**

### RESEARCH ARTICLES

- 3102** The extracellular metalloprotease AdamTS-A anchors neural lineages in place within and preserves the architecture of the central nervous system  
**Skeath, J. B., Wilson, B. A., Romero, S. E., Snee, M. J., Zhu, Y. and Lacin, H.**
- 3114** Sox2 expression in Schwann cells inhibits myelination *in vivo* and induces influx of macrophages to the nerve  
**Roberts, S. L., Dun, X. P., Doddrell, R. D. S., Mindos, T., Drake, L. K., Onaitis, M. W., Florio, F., Quattrini, A., Lloyd, A. C., D'Antonio, M. and Parkinson, D. B.**
- 3126** Non-canonical *WOX11*-mediated root branching contributes to plasticity in *Arabidopsis* root system architecture  
**Sheng, L., Hu, X., Du, Y., Zhang, G., Huang, H., Scheres, B. and Xu, L.**
- 3134** Essential basal cytonemes take up Hedgehog in the *Drosophila* wing imaginal disc  
**Chen, W., Huang, H., Hatori, R. and Kornberg, T. B.**
- 3145** Genome-wide identification of Grainy head targets in *Drosophila* reveals regulatory interactions with the POU domain transcription factor Vvl  
**Yao, L., Wang, S., Westholm, J. O., Dai, Q., Matsuda, R., Hosono, C., Bray, S., Lai, E. C. and Samakovlis, C.**
- 3156** Hes5 regulates the transition timing of neurogenesis and gliogenesis in mammalian neocortical development  
**Bansod, S., Kageyama, R. and Ohtsuka, T.**
- 3168** Patterning of the *Drosophila* L2 vein is driven by regulatory interactions between region-specific transcription factors expressed in response to Dpp signalling  
**Marín, M., Ostalé, C. M. and de Celis, J. F.**
- 3177** Cellular heterogeneity in the ureteric progenitor niche and distinct profiles of branching morphogenesis in organ development  
**Rutledge, E. A., Benazet, J.-D. and McMahon, A. P.**

### TECHNIQUES AND RESOURCES