



Cover: Mirrored image of a primary human fetal dopaminergic cell in the striatum of a rat brain. The cell had been coated *ex vivo* with a surrogate stroma of nanoparticles containing growth factor to support survival and maturation *in vivo*, modelling cell therapy for Parkinson's disease. Image kindly provided by Dr Delisa Garcia using Imaris Filament Tracer software: colours relate to the dimensions of neurites and cell body. See article by Zhao et al. on page 1193.

REVIEW

- 1131** Microbial imbalance and intestinal pathologies: connections and contributions
Yang, Y. and Jobin, C.

RESEARCH ARTICLES

- 1143** Phenotyping structural abnormalities in mouse embryos using high-resolution episcopic microscopy
Weninger, W. J., Geyer, S. H., Martineau, A., Galli, A., Adams, D. J., Wilson, R. and Mohun, T. J.
- 1153** Genetic interactions between planar cell polarity genes cause diverse neural tube defects in mice
Murdoch, J. N., Damrau, C., Paudyal, A., Bogani, D., Wells, S., Greene, N. D. E., Stanier, P. and Copp, A. J.
- 1165** A *Drosophila* model of mitochondrial disease caused by a complex I mutation that uncouples proton pumping from electron transfer
Burman, J. L., Itsara, L. S., Kayser, E.-B., Suthammarak, W., Wang, A. M., Kaeberlein, M., Sedensky, M. M., Morgan, P. G. and Pallanck, L. J.

- 1175** Potentiated Hsp104 variants suppress toxicity of diverse neurodegenerative disease-linked proteins
Jackrel, M. E. and Shorter, J.

- 1185** Isolating the role of elevated *Phlda2* in asymmetric late fetal growth restriction in mice
Tunster, S. J., Van De Pette, M. and John, R. M.

RESOURCE ARTICLE

- 1193** Modelling of a targeted nanotherapeutic 'stroma' to deliver the cytokine LIF, or XAV939, a potent inhibitor of Wnt- β -catenin signalling, for use in human fetal dopaminergic grafts in Parkinson's disease
Zhao, J.-W., Dyson, S. C., Kriegel, C., Tyers, P., He, X., Fahmy, T. M., Metcalfe, S. M. and Barker, R. A.

