

Cover: Image of an *Ambystoma mexicanum* limb that has been stained with alizarin red (bone) and alcian blue (cartilage). An ectopic limb (right side) was induced to grow from a wound on the limb proper by deviating a severed nerve and grafting tissue from the opposite limb axis into the wound site. This assay, known as the accessory limb assay, makes it possible to test each of the critical components of limb regeneration: (1) the wound, (2) neurotrophic factors and (3) positional information. Understanding the role of each of these components during limb regeneration in the adult *A. mexicanum* will bring us closer to harnessing the regenerative capacity in humans. Image by Catherine McCusker from the Gardiner/Bryant research group. See article by McCusker and Gardiner on page 593.

REVIEW

- 593** Understanding positional cues in salamander limb regeneration: implications for optimizing cell-based regenerative therapies
McCusker, C. D. and Gardiner, D. M.

RESEARCH ARTICLES

- 601** Precise control of miR-125b levels is required to create a regeneration-permissive environment after spinal cord injury: a cross-species comparison between salamander and rat
Diaz Quiroz, J. F., Tsai, E., Coyle, M., Sehm, T. and Echeverri, K.
- 613** Cross-species analysis of genetically engineered mouse models of MAPK-driven colorectal cancer identifies hallmarks of the human disease
Belmont, P. J., Budinska, E., Jiang, P., Sinnamon, M. J., Coffee, E., Roper, J., Xie, T., Rejto, P. A., Derkits, S., Sansom, O. J., Delorenzi, M., Tejpar, S., Hung, K. E. and Martin, E. S.
- 625** Role of insulin signaling impairment, adiponectin and dyslipidemia in peripheral and central neuropathy in mice
Anderson, N. J., King, M. R., Delbruck, L. and Jolivalt, C. G.
- 635** Phenotypic rescue of a *Drosophila* model of mitochondrial ANT1 disease
Vartiainen, S., Chen, S., George, J., Tuomela, T., Luoto, K. R., O'Dell, K. M. C. and Jacobs, H. T.
- 649** A new mouse model of Canavan leukodystrophy displays hearing impairment due to central nervous system dysmyelination
Carpinelli, M. R., Voss, A. K., Manning, M. G., Perera, A. A., Cooray, A. A., Kile, B. T. and Burt, R. A.
- 659** The chaperone domain BRICHOS prevents CNS toxicity of amyloid- β peptide in *Drosophila melanogaster*
Hermansson, E., Schultz, S., Crowther, D., Linse, S., Winblad, B., Westermark, G., Johansson, J. and Presto, J.

- 667** Absence of strong strain effects in behavioral analyses of *Shank3*-deficient mice

Drapeau, E., Dorr, N. P., Elder, G. A. and Buxbaum, J. D.

- 683** Kelch-like ECT2-interacting protein KLEIP regulates late-stage pulmonary maturation via Hif-2 α in mice
Woik, N., Dietz, C. T., Schäker, K. and Kroll, J.

- 693** *Cryptosporidium parvum*-induced ileo-caecal adenocarcinoma and Wnt signaling in a mouse model

Benamrouz, S., Conseil, V., Chabé, M., Praet, M., Audebert, C., Blervaque, R., Guyot, K., Gazzola, S., Mouray, A., Chassat, T., Delaire, B., Goetinck, N., Gantois, N., Osman, M., Slomianny, C., Dehennaut, V., Lefebvre, T., Viscogliosi, E., Cuvelier, C., Dei-Cas, E., Creusy, C. and Certad, G.

- 701** Balance between the two kinin receptors in the progression of experimental focal and segmental glomerulosclerosis in mice

Pereira, R. L., Felizardo, R. J. F., Cenedeze, M. A., Hiyane, M. I., Bassi, E. J., Amano, M. T., Origassa, C. S. T., Silva, R. C., Aguiar, C. F., Carneiro, S. M., Pesquero, J. B., Araújo, R. C., Keller, A. C., Monteiro, R. C., Moura, I. C., Pacheco-Silva, A. and Câmara, N. O. S.

- 711** A novel mouse model of Warburg Micro syndrome reveals roles for RAB18 in eye development and organisation of the neuronal cytoskeleton

Carpanini, S. M., McKie, L., Thomson, D., Wright, A. K., Gordon, S. L., Roche, S. L., Handley, M. T., Morrison, H., Brownstein, D., Wishart, T. M., Cousin, M. A., Gillingwater, T. H., Aligianis, I. A. and Jackson, I. J.

- 723** Contribution of neural cell death to depressive phenotypes of streptozotocin-induced diabetic mice
Chen, C., Wang, Y., Zhang, J., Ma, L., Gu, J. and Ho, G.