



Cover: The Madagascar ground gecko (*Paroedura picta*) has become a laboratory model for lizard species studies in developmental biology, evolutionary ecology and physiology. On page 1149, Czarnoleski et al. provide evidence suggesting that changes in cell size are involved in the origin of thermal and sexual differences in adult size for this species of lizard. Intriguingly, some cell types grouped according to their coordinated changes in cell size. Image provided by Petr Jan Juračka and licensed under a Creative Commons Attribution 4.0 International licence.

RESEARCH ARTICLES

- 1123** Notch2 and Notch3 suppress the proliferation and mediate invasion of trophoblast cell lines
Zhao, W.-X., Wu, Z.-M., Liu, W. and Lin, J.-H.
- 1130** Anti-inflammatory and anti-osteoarthritis effects of tectorigenin
Wang, C.-L., Li, D., Wang, C.-D., Xiao, F., Zhu, J.-F., Shen, C., Zuo, B., Cui, Y.-M., Wang, H., Gao, Y., Hu, G.-L., Zhang, X.-L. and Chen, X.-D.
- 1137** Apical and basal epitheliomuscular F-actin dynamics during *Hydra* bud evagination
Aufschnaiter, R., Wedlich-Söldner, R., Zhang, X. and Hobmayer, B.
- 1149** Not all cells are equal: effects of temperature and sex on the size of different cell types in the Madagascar ground gecko *Paroedura picta*
Czarnoleski, M., Labecka, A. M., Starostová, Z., Sikorska, A., Bonda-Ostaszewska, E., Woch, K., Kubička, L., Kratochvíl, L. and Kozłowski, J.
- 1155** Specific expression and function of the Six3 *optix* in *Drosophila* serially homologous organs
Al Khatib, A., Siomava, N., Iannini, A., Posnien, N. and Casares, F.
- 1165** The protein phosphatase 4 complex promotes the Notch pathway and *wingless* transcription
Hall, E. T., Pradhan-Sundd, T., Samnani, F. and Verheyen, E. M.
- 1174** Genetic deletion of amphiregulin restores the normal skin phenotype in a mouse model of the human skin disease tylosis
Hosur, V., Low, B. E., Shultz, L. D. and Wiles, M. V.
- 1180** The Golgi matrix protein giantin is required for normal cilia function in zebrafish
Bergen, D. J. M., Stevenson, N. L., Skinner, R. E. H., Stephens, D. J. and Hammond, C. L.
- 1190** Effects of temperature and UVR on organic matter fluxes and the metabolic activity of *Acropora muricata*
Courtial, L., Ferrier-Pagès, C., Jacquet, S., Rodolfo-Metalpa, R., Reynaud, S., Rottier, C. and Houlbrèque, F.
- 1200** *Tg(Th-Cre)Fl172Gsat (Th-Cre)* defines neurons that are required for full hypercapnic and hypoxic reflexes
Sun, J. J. and Ray, R. S.
- 1209** Adaptive camouflage: what can be learned from the wetting behaviour of the tropical flat bugs *Dysodius lunatus* and *Dysodius magnus*
Hischen, F., Reiswich, V., Kupsch, D., De Mecquenem, N., Riedel, M., Himmelsbach, M., Weth, A., Heiss, E., Armbruster, O., Heitz, J. and Baumgartner, W.

METHODS & TECHNIQUES

- 1219** A reporter mouse model for *in vivo* tracing and *in vitro* molecular studies of melanocytic lineage cells and their diseases
Crawford, M., Leclerc, V. and Dagnino, L.
- 1229** Investigation of protein synthesis in *Drosophila* larvae using puromycin labelling
Deliu, L. P., Ghosh, A. and Grewal, S. S.
- 1235** A framework for quantification and physical modeling of cell mixing applied to oscillator synchronization in vertebrate somitogenesis
Uriu, K., Bhavna, R., Oates, A. C. and Morelli, L. G.
- 1245** Manipulation and quantification of microtubule lattice integrity
Reid, T. A., Coombes, C. and Gardner, M. K.