



**Cover:** Immunofluorescence of fish intestine organoid: long term culture of intestinal trout tissue shows co-expression of ZO-1 (red), E-cadherin (green) and cell nuclei (blue). Together they demonstrate that the microstructure of the culture replicates the *in-situ* condition. This model provides a method to establish a functional, integrated multi-cell-type *in vitro* approach to long term exposure. There is potential for mimicking dietary delivery to establish uptake, metabolism, physiological and metabolomic responses to potentially toxic items in the food, in a unique exposure scenario not possible in live fish. Many have tried unsuccessfully to establish these cultures, Langan et al. (bio032870), present a robust and simple method. Image is licensed under a Creative Commons Attribution 4.0 International license.

## RESEARCH ARTICLES

Whole-transcriptome splicing profiling of E7.5 mouse primary germ layers reveals frequent alternative promoter usage during mouse early embryogenesis

**Lu, X., Zhao, Z.-A., Wang, X., Zhang, X., Zhai, Y., Deng, W., Yi, Z. and Li, L.**

bio032508

Separate roles for Med12 and Wnt signaling in regulation of oxytocin expression

**Spikol, E. D. and Glasgow, E.**

bio031229

Inhibition of miR-34a-5p alleviates hypoxia-reoxygenation injury by enhancing autophagy in steatotic hepatocytes

**Li, C., Wang, K., Guo, L., Sun, H., Huang, H., Lin, X. and Li, Q.**

bio033290

Degradation of cyclin B is critical for nuclear division in *Trypanosoma brucei*

**Hayashi, H. and Akiyoshi, B.**

bio031609

The cross-tissue metabolic response of abalone (*Haliotis midae*) to functional hypoxia

**Venter, L., Loots, D. T., Mienie, L. J., van Rensburg, P. J. J., Mason, S., Vosloo, A. and Lindeque, J. Z.**

bio031070

The teneurin C-terminal domain possesses nuclease activity and is apoptogenic

**Ferralli, J., Tucker, R. P. and Chiquet-Ehrismann, R.**

bio031765

pH controls spermatozoa motility in the Pacific oyster (*Crassostrea gigas*)

**Boulais, M., Suquet, M., Arsenault-Pernet, E. J., Malo, F., Queau, I., Pignet, P., Ratiskol, D., Le Grand, J., Huber, M. and Cosson, J.**

bio031427

ZFP36L2 is a cell cycle-regulated CCCH protein necessary for DNA lesion-induced S-phase arrest

**Noguchi, A., Adachi, S., Yokota, N., Hatta, T., Natsume, T. and Kawahara, H.**

bio031575

Adjustable delivery of pro-angiogenic FGF-2 by alginate:collagen microspheres

**Ali, Z., Islam, A., Sherrell, P., Le-Moine, M., Lolas, G., Syrigos, K., Rafat, M. and Jensen, L. D.**

bio027060

A novel reporter allele for monitoring *Dll4* expression within the embryonic and adult mouse

**Herman, A. M., Rhyner, A. M., Devine, W. P., Marrelli, S. P., Bruneau, B. G. and Wythe, J. D.**

bio026799

## METHODS & TECHNIQUES

Streamlined histone-based fluorescence lifetime imaging microscopy (FLIM) for studying chromatin organisation

**Sherrard, A., Bishop, P., Panagi, M., Villagomez, M. B., Alibhai, D. and Kaidi, A.**

bio031476

Establishment and long-term maintenance of primary intestinal epithelial cells cultured from the rainbow trout, *Oncorhynchus mykiss*

**Langan, L. M., Owen, S. F. and Jha, A. N.**

bio032870