



**Cover:** Green sea turtles (*Chelonia mydas*) are ectothermic marine animals and have well-adjusted physiological functions for prolonged dives. However, little is known about their heart rate and cardiac response to exercise during submergence. A study by Okuyama and colleagues used animal-borne ECG recorder and accelerometer to simultaneously record their heart rate and activity level during submergence. The results demonstrated that the turtles showed immediate cardiac response to exercise during submergence, presumably because they store oxygen primarily in the lungs and need blood circulation to meet the metabolic demand. Image licensed under a Creative Commons Attribution 4.0 International license.

## RESEARCH ARTICLES

Tubulin-binding cofactor E-like (TBCEL), the protein product of the *mulet* gene, is required in the germline for the regulation of inter-flagellar microtubule dynamics during spermatid individualization

**Fabrizio, J. J., Rollins, J., Bazinet, C. W., Wegener, S., Koziy, I., Daniel, R., Lombardo, V., Pryce, D., Bharrat, K., Innabi, E., Villanobos, M., Mendoza, G., Ferrara, E., Rodway, S., Vicioso, M., Siracusa, V., Dailey, E., Pronovost, J., Innabi, S., Patel, V., DeSouza, N., Quaranto, D. and Niknejad, A.**

bio049080

Heart rate and cardiac response to exercise during voluntary dives in captive sea turtles (Cheloniidae)

**Okuyama, J., Shiozawa, M. and Shiode, D.**

bio049247

TRBP–Dicer interaction may enhance HIV-1 TAR RNA translation via TAR RNA processing, repressing host-cell apoptosis

**Komori, C., Takahashi, T., Nakano, Y. and Ui-Tei, K.**

bio050435

Whole-genome fingerprint of the DNA methylome during chemically induced differentiation of the human AML cell line HL-60/S4

**Antwi, E. B., Olins, A., Teif, V. B., Bieg, M., Bauer, T., Gu, Z., Brors, B., Eils, R., Olins, D. and Ishaque, N.**

bio044222

Hormones as adaptive control systems in juvenile fish

**Weidner, J., Jensen, C. H., Giske, J., Eliassen, S. and Jørgensen, C.**

bio046144

Loss of Crb2b-lf leads to anterior segment defects in old zebrafish

**Kujawski, S., Crespo, C., Luz, M., Yuan, M., Winkler, S. and Knust, E.**

bio047555

*Greb1* is required for axial elongation and segmentation in vertebrate embryos

**Prajapati, R. S., Mitter, R., Vezaro, A. and Ish-Horowicz, D.**

bio047290

The absence of SOX2 in the anterior foregut alters the esophagus into trachea and bronchi in both epithelial and mesenchymal components

**Teramoto, M., Sugawara, R., Minegishi, K., Uchikawa, M., Takemoto, T., Kuroiwa, A., Ishii, Y. and Kondoh, H.**

bio048728

FAM172A inhibits EMT in pancreatic cancer via ERK-MAPK signaling

**Chen, Y., Liu, P., Shen, D., Liu, H., Xu, L., Wang, J., Shen, D., Sun, H. and Wu, H.**

bio048462

Polyphyllin II inhibits liver cancer cell proliferation, migration and invasion through downregulated cofilin activity and the AKT/NF- $\kappa$ B pathway

**Pang, D., Yang, C., Li, C., Zou, Y., Feng, B., Li, L., Liu, W., Luo, Q., Chen, Z. and Huang, C.**

bio046854

Mechanical and molecular parameters that influence the tendon differentiation potential of C3H10T1/2 cells in 2D- and 3D-culture systems

**Gaut, L., Bonnin, M.-A., Blavet, C., Cacciapuoti, I., Orpel, M., Mericskay, M. and Duprez, D.**

bio047928

## FIRST PERSON

First person – James Fabrizio

bio051151

First person – Jacqueline Weidner

bio051011

## CORRECTION

Correction: An essential role of the mouse synapse-associated protein Syap1 in circuits for spontaneous motor activity and rotarod balance

**von Collenberg, C. R., Schmitt, D., Rülicke, T., Sendtner, M., Blum, R. and Buchner, E.**

bio048942