



**Cover:** Image of an eastern indigo snake (*Drymarchon couperi*), named for their large, smooth scales that in sunlight appear iridescent blue or purple. This species consumes a variety of vertebrates but exhibits a preference for venomous pitviper snakes. Goetz et al. confirm eastern indigo snakes possess a physiological resistance to the venom of pitvipers by demonstrating the ability of indigo blood sera to inhibit the activity of two primary venom compounds, including hemolytic toxins and snake venom metalloproteinases. Image credit Scott Goetz. Image licensed under a Creative Commons Attribution 4.0 International license.

## RESEARCH ARTICLES

Alteration of 28S rRNA 2'-O-methylation by etoposide correlates with decreased SMN phosphorylation and reduced Drosha levels

**Burke, M. F., McLaurin, D. M., Logan, M. K. and Hebert, M. D.**

bio041848

The 1ALCTL and 1BLCTL isoforms of Arg/Abl2 induce fibroblast activation and extra cellular matrix remodelling differently

**Torsello, B., De Marco, S., Bombelli, S., Chisci, E., Cassina, V., Corti, R., Bernasconi, D., Giovannoni, R., Bianchi, C. and Perego, R. A.**

bio038554

Sperm-duct gland content increases sperm velocity in the sand goby

**Green, L. and Kvarnemo, C.**

bio037994

Transcriptomic analyses highlight the likely metabolic consequences of colonization of a cnidarian host by native or non-native *Symbiodinium* species

**Lin, M.-F., Takahashi, S., Forêt, S., Davy, S. K. and Miller, D. J.**

bio038281

Sonic hedgehog expression in the postnatal brain

**Rivell, A., Petralia, R. S., Wang, Y.-X., Clawson, E., Moehl, K., Mattson, M. P. and Yao, P. J.**

bio040592

Independent and combined effects of daytime heat stress and night-time recovery determine thermal performance

**Bai, C.-M., Ma, G., Cai, W.-Z. and Ma, C.-S.**

bio038141

Jagged1 protein processing in the developing mammalian lens

**Azimi, M. and Brown, N. L.**

bio041095

Serum-based inhibition of pitviper venom by eastern indigo snakes (*Drymarchon couperi*)

**Goetz, S. M., Piccolomini, S., Hoffman, M., Bogan, J., Holding, M. L., Mendonça, M. T. and Steen, D. A.**

bio040964

Infective larvae of *Anisakis simplex* (Nematoda) accumulate trehalose and glycogen in response to starvation and temperature stress

**Łopieńska-Biernat, E., Stryński, R., Dmitryjuk, M. and Wasilewska, B.**

bio040014

Edar is a downstream target of beta-catenin and drives collagen accumulation in the mouse prostate

**Wegner, K. A., Mehta, V., Johansson, J. A., Mueller, B. R., Keil, K. P., Abler, L. L., Marker, P. C., Taketo, M. M., Headon, D. J. and Vezina, C. M.**

bio037945

Odd-skipped and Stripe act downstream of Notch to promote the morphogenesis of long appendicular tendons in *Drosophila*

**Laddada, L., Jagla, K. and Soler, C.**

bio038760

The *Toxoplasma gondii* dense granule protein TgGRA3 interacts with host Golgi and dysregulates anterograde transport

**Deffieu, M. S., Alayi, T. D., Slomianny, C. and Tomavo, S.**

bio039818

Mbt/PAK4 together with SRC modulates N-Cadherin adherens junctions in the developing *Drosophila* eye

**Pütz, S. M.**

bio038406

Identification of possible hypoxia sensor for behavioral responses in a marine annelid, *Capitella teleta*

**Ogino, T. and Toyohara, H.**

bio037630

Reprogramming of the cambium regulators during adventitious root development upon wounding of storage tap roots in radish (*Raphanus sativus* L.)

**Aliaga Fandino, A. C., Kim, H., Rademaker, J. D. and Lee, J.-Y.**

bio039677

Escort cell encapsulation of *Drosophila* germline cells is maintained by irre cell recognition module proteins

**Ben-Zvi, D. S. and Volk, T.**

bio039842

The signal peptide plus a cluster of positive charges in prion protein dictate chaperone-mediated Sec61 channel gating

**Ziska, A., Tatzelt, J., Dudek, J., Paton, A. W., Paton, J. C., Zimmermann, R. and Haßdenteufel, S.**

bio040691

Chromogranin A regulates neuroblastoma proliferation and phenotype

**Zhang, D., Babayan, L., Ho, H. and Heaney, A. P.**

bio036566

*De novo* transcription of multiple Hox cluster genes takes place simultaneously in early *Xenopus tropicalis* embryos

**Kondo, M., Matsuo, M., Igarashi, K., Haramoto, Y., Yamamoto, T., Yasuoka, Y. and Taira, M.**

bio038422

Mutation of microphthalmia-associated transcription factor (mitf) in zebrafish sensitizes for glomerulopathy  
**Müller-Deile, J., Schenk, H., Niggemann, P., Bolaños-Palmieri, P., Teng, B., Higgs, A., Staggs, L., Haller, H., Schroder, P. and Schiffer, M.**  
bio040253

#### METHODS AND TECHNIQUES

Automated morphometry toolbox for analysis of microscopic model organisms using simple bright-field imaging  
**Liu, G., Dong, F., Fu, C. and Smith, Z. J.**  
bio037788

Sea urchin *Paracentrotus lividus* immune cells in culture: formulation of the appropriate harvesting and culture media and maintenance conditions  
**Pinsino, A. and Alijagic, A.**  
bio039289

#### FIRST PERSON

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bio043000

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bio042507

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bio042333

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bio042499

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bio042556

First person – Sarah Haßdenteufel  
bio042549

First person – Annalisa Pinsino and Andi Alijagic  
bio042242