



Cover: Confocal image of *Drosophila* testis. In *Drosophila*, a group of 64 spermatids develop within an enclosure formed by two somatic cyst cells. In this paper, Dubey et al show that septate junction (SJ) proteins, expressed by the somatic cyst cells undergo morphogenesis as the cyst matures. Further, the SJ proteins have different roles in different stages of the cyst. This image depicts the nuclear staining (white, Hoescht) and Eya (Eyes-absent, magenta) expression pattern in a control testis. Image Credits - Tushna Kapoor. Image licensed under a Creative Commons Attribution 4.0 International license.

EDITORIAL

From polar bears to cell polarity and everything in between: 2018 in review

Hackett, R.
bio042119

RESEARCH ARTICLES

Antimicrobial potential of actinomycetes isolated from the unexplored hot Merzouga desert and their taxonomic diversity
Ouchari, L., Boukeskase, A., Bouizgarne, B. and Ouhdouch, Y.
bio035410

Terminalia fagifolia Mart. & Zucc. elicits vasorelaxation of rat thoracic aorta through nitric oxide and K⁺ channels dependent mechanism
de Carvalho, E. F., Nunes, A. F., Silva, N. C. B., da Silva Gomes, J. P., de Sousa, R. P., Silva, V. G., Nunes, P. H. M., Santos, R. F., Chaves, M. H., Oliveira, A. P. and Oliveira, R. C. M.
bio035238

Zebrafish *duox* mutations provide a model for human congenital hypothyroidism
Chopra, K., Ishibashi, S. and Amaya, E.
bio037655

Joint moments during sprinting in unilateral transfemoral amputees wearing running-specific prostheses
Namiki, Y., Hashizume, S., Murai, A., Kobayashi, Y., Takemura, H. and Hobara, H.
bio039206

Gcn5 histone acetyltransferase is present in the mitoplasts
Montanari, A., Leo, M., De Luca, V., Filetici, P. and Francisci, S.
bio041244

Ultraviolet B-induced Otx2 expression in lens epithelial cells promotes epithelial–mesenchymal transition
Yoshitomi, Y., Osada, H., Satake, H., Kojima, M., Saito-Takatsuji, H., Ikeda, T., Yoshitake, Y., Ishigaki, Y., Kubo, E., Sasaki, H. and Yonekura, H.
bio035691

Molecular characterization and overexpression of *mnp6* and *vp3* from *Pleurotus ostreatus* revealed their involvement in biodegradation of cotton stalk lignin
Wang, Y., Li, G., Jiao, X., Cheng, X., Abdullah, M., Li, D., Lin, Y., Cai, Y. and Nie, F.
bio036483

n-3 PUFA biosynthesis by the copepod *Apocyclops royi* documented using fatty acid profile analysis and gene expression analysis
Nielsen, B. L. H., Götterup, L., Jørgensen, T. S., Hansen, B. W., Hansen, L. H., Mortensen, J. and Jepsen, P. M.
bio038331

Microtubule stabilizer reveals requirement of Ca²⁺-dependent conformational changes of microtubules for rapid coiling of haptonema in haptophyte algae
Nomura, M., Atsuji, K., Hirose, K., Shiba, K., Yanase, R., Nakayama, T., Ishida, K.-i. and Inaba, K.
bio036590

The Forkhead box F1 transcription factor inhibits collagen deposition and accumulation of myofibroblasts during liver fibrosis
Flood, H. M., Bolte, C., Dasgupta, N., Sharma, A., Zhang, Y., Gandhi, C. R., Kalin, T. V. and Kalinichenko, V. V.
bio039800

Low-dose ionizing radiation alleviates Aβ₄₂-induced cell death via regulating AKT and p38 pathways in *Drosophila* Alzheimer's disease models
Hwang, S., Jeong, H., Hong, E.-H., Joo, H. M., Cho, K. S. and Nam, S. Y.
bio036657

Atypical septate junctions maintain the somatic enclosure around maturing spermatids and prevent premature sperm release in *Drosophila* testis
Dubey, P., Kapoor, T., Gupta, S., Shirolkar, S. and Ray, K.
bio036939

The role of NF-κB and Elk-1 in the regulation of mouse ADAM17 expression
Wawro, K., Wawro, M., Strzelecka, M., Czarnek, M. and Bereta, J.
bio039420

Cux2 refines the forelimb field by controlling expression of *Raldh2* and *Hox* genes
Ueda, S., Cordeiro, I. R., Moriyama, Y., Nishimori, C., Kai, K.-i., Yu, R., Nakato, R., Shirahige, K. and Tanaka, M.
bio040584

METHODS AND TECHNIQUES

Tracking diphyodont development in miniature pigs *in vitro* and *in vivo*
Wang, F., Li, G., Wu, Z., Fan, Z., Yang, M., Wu, T., Wang, J., Zhang, C. and Wang, S.
bio037036

FIRST PERSON

First person – Kunal Chopra
bio042325

First person – Tushna Kapoor and Pankaj Dubey
bio041756