



Cover: Knockdown of the putative *Drosophila* gene *CG4038* by RNAi in female germ line cells leads to oogenesis arrest during the first mitotic divisions of the cystoblast. The image shows a *CG4038* knockdown ovary stained for the germ line marker Vasa (green), the differentiation factor Bag-of-marbles (Bam; red), the cytoskeleton and fusome component a-Spectrin (blue) and DNA (white). *CG4038* was identified as a gene downregulated in *bam* mutant ovaries in an RNA-seq transcriptome analysis performed by Tiwari et al. Image licensed under a Creative Commons Attribution 4.0 International license.

RESEARCH ARTICLES

Nanog regulates *Pou3f1* expression at the exit from pluripotency during gastrulation

Barral, A., Rollan, I., Sanchez-Iranzo, H., Jawaid, W., Badia-Careaga, C., Menchero, S., Gomez, M. J., Torroja, C., Sanchez-Cabo, F., Göttgens, B., Manzanares, M. and Sainz de Aja, J.

bio046367

Optimization of high endoglucanase yields production from polypore fungus, *Microporus xanthopus* strain KA038 under solid-state fermentation using green tea waste

Nguyen, K. A., Kumla, J., Suwannarach, N., Penkhrue, W. and Lumyong, S.

bio047183

Effects of inhibiting mTOR with rapamycin on behavior, development, neuromuscular physiology and cardiac function in larval *Drosophila*

Potter, S., Sifers, J., Yocom, E., Blümich, S. L. E., Potter, R., Nadolski, J., Harrison, D. A. and Cooper, R. L.

bio046508

Does paternal immunocompetence affect offspring vulnerability to maternal androgens? A study in domestic chickens

Lelono, A., Robledo-Ruiz, D. A., Berghof, T. V. L., Parmentier, H. K., Riedstra, B. and Groothuis, T. G.

bio045096

A unique transgenic mouse model exhibiting a myeloproliferative disease-like phenotype

Kito, Y., Hanamatsu, Y., Kawashima, K., Saigo, C. and Takeuchi, T.

bio044438

Molecular profiling of stem cell-like female germ line cells in *Drosophila* delineates networks important for stemness and differentiation

Tiwari, M. D., Zeitler, D. M., Meister, G. and Wodarz, A.

bio046789

The phosphate-solubilizing ability of *Penicillium guanacastense* and its effects on the growth of *Pinus massoniana* in phosphate-limiting conditions

Qiao, H., Sun, X.-R., Wu, X.-Q., Li, G.-E., Wang, Z. and Li, D.-W.

bio046797

Muc5b-deficient mice develop early histological lung abnormalities

Valque, H., Gouyer, V., Duez, C., Leboeuf, C., Marquillies, P., Le Bert, M., Plet, S., Ryffel, B., Janin, A., Gottrand, F. and Desseyn, J.-L.

bio046359

Star-PAP regulates tumor protein D52 through modulating miR-449a/34a in breast cancer

Duan, A., Kong, L., An, T., Zhou, H., Yu, C. and Li, Y.

bio045914

Heterogeneous response of endothelial cells to insulin-like growth factor 1 treatment is explained by spatially clustered sub-populations

Kim, C., Seedorf, G. J., Abman, S. H. and Shepherd, D. P.

bio045906

MiR145-5p inhibits proliferation of PMVECs via PAI-1 in experimental hepatopulmonary syndrome rat pulmonary microvascular hyperplasia

Chen, Y., Yang, C., Li, Y., Chen, L., Yang, Y., Belguise, K., Wang, X., Lu, K. and Yi, B.

bio044800

The conserved metalloprotease invadolysin is present in invertebrate haemolymph and vertebrate blood

Abhinav, K., Feng, L., Morrison, E., Jung, Y., Dear, J., Takahashi, S. and Heck, M. M. S.

bio044073

Octopus insularis as a new marine model for evolutionary developmental biology

Maldonado, E., Rangel-Huerta, E., González-Gómez, R., Fajardo-Alvarado, G. and Morillo-Velarde, P. S.

bio046086

METHODS & TECHNIQUES

A methodological evaluation of the determination of critical oxygen threshold in an estuarine teleost

Negrete, B., Jr. and Esbaugh, A. J.

bio045310

FIRST PERSON

First person – Antonio Barral and Isabel Rollan

bio049171

First person – Kim Anh Nguyen

bio048769