



Cover: Peterman et al. (dmm049911) use cutaneous injury models to identify interactions between resident immune cells (cyan) and somatosensory axons (depth-coded) in the epidermis of adult zebrafish, providing a powerful model for dissecting mechanisms potentially altered in peripheral neuropathies. Image courtesy of Eric Peterman. Cover image is licensed under a Creative Commons Attribution 4.0 International license.

EDITORIAL

DMM Outstanding Paper Prize 2022 winners: Tamihiro Kamata, Jennifer K. Sargent and Mark A. Warner

Hackett, R.

dmm050268

PERSPECTIVE

Maximizing biomedical research impacts through bioethical considerations

Tornini, V. A., Peregalli Politi, S., Bruce, L. and Latham, S. R.

dmm050046

REVIEWS

Intestinal barrier dysfunction: an evolutionarily conserved hallmark of aging

Salazar, A. M., Aparicio, R., Clark, R. I., Rera, M. and Walker, D. W.

dmm049969

Evolution and immunopathology of chikungunya virus informs therapeutic development

Henderson Sousa, F., Ghaisani Komarudin, A., Findlay-Greene, F., Bowolaksono, A., Sasmono, R. T., Stevens, C. and Barlow, P. G.

dmm049804

RESEARCH ARTICLES

Antimicrobial peptides do not directly contribute to aging in *Drosophila*, but improve lifespan by preventing dysbiosis

Hanson, M. A. and Lemaitre, B.

dmm049965

Genetic dissection of triplicated chromosome 21 orthologs yields varying skeletal traits in Down syndrome model mice

Sloan, K., Thomas, J., Blackwell, M., Voisard, D., Lana-Elola, E., Watson-Scales, S., Roper, D. L., Wallace, J. M., Fisher, E. M. C., Tybulewicz, V. L. J. and Roper, R. J.

dmm049927

PRDM1 DNA-binding zinc finger domain is required for normal limb development and is disrupted in split hand/foot malformation
Truong, B. T., Shull, L. C., Lencer, E., Bend, E. G., Field, M., Blue, E. E., Bamshad, M. J., Skinner, C., Everman, D., Schwartz, C. E., Flanagan-Steet, H. and Artinger, K. B.

dmm049977

Upregulation of Tribbles decreases body weight and increases sleep duration

Popovic, R., Yu, Y., Leal, N. S., Fedele, G., Loh, S. H. Y. and Martins, L. M.

dmm049942

Probing the pathogenicity of patient-derived variants of MT-ATP6 in yeast

Baranowska, E., Niedzwiecka, K., Panja, C., Charles, C., Dautant, A., Poznanski, J., di Rago, J.-P., Tribouillard-Tanvier, D. and Kucharczyk, R.

dmm049783

Mechanistic studies in *Drosophila* and chicken give new insights into functions of DVL1 in dominant Robinow syndrome

Gignac, S. J., MacCharles, K. R., Fu, K., Bonaparte, K., Akarsu, G., Barrett, T. W., Verheyen, E. M. and Richman, J. M.

dmm049844

Overexpression screen of chromosome 21 genes reveals modulators of Sonic hedgehog signaling relevant to Down syndrome

Moyer, A. J., Fernandez, F.-X., Li, Y., Klinedinst, D. K., Florea, L. D., Kazuki, Y., Oshimura, M. and Reeves, R. H.

dmm049712

Fibroblast-derived EGF ligand neuregulin 1 induces fetal-like reprogramming of the intestinal epithelium without supporting tumorigenic growth

Lemmetyinen, T. T., Viitala, E. W., Wartiovaara, L., Kaprio, T., Hagström, J., Haglund, C., Katajisto, P., Wang, T. C., Domènech-Moreno, E. and Ollila, S.

dmm049692

Zebrafish cutaneous injury models reveal that Langerhans cells engulf axonal debris in adult epidermis

Peterman, E., Quitevis, E. J. A., Black, E. C., Horton, E. C., Aelmore, R. L., White, E., Sagasti, A. and Rasmussen, J. P.

dmm049911

Therapeutic targeting of vascular malformation in a zebrafish model of hereditary haemorrhagic telangiectasia

Snodgrass, R. O., Govindpani, K., Plant, K., Kugler, E. C., Doh, C., Dawson, T., McCormack, L. E., Arthur, H. M. and Chico, T. J. A.

dmm049567

RESOURCE ARTICLE

The Mouse Models of Human Cancer database (MMHCdb)

Begley, D. A., Krupke, D. M., Sundberg, J. P., Jocoy, E. L., Richardson, J. E., Neuhauser, S. B. and Bult, C. J.

dmm050001

FIRST PERSON

First person – Mark Hanson

dmm050153

First person – Brittany Truong

dmm050192

First person – Rebeka Popovic and Yizhou Yu

dmm050220

First person – Toni Lemmetyinen

dmm050195