



Cover: Mouse carrying the Y130C mutation in the *Mek1* gene provides a new model for cardio-facio-cutaneous syndrome (CFC), presenting cranial, neurological and cardiac phenotypes similar to those observed in CFC individuals. Consistent with other RASopathy-linked mutations, analysis of GFAP-labeled astrocytes in hippocampal CA1 revealed a significant increase in the density of GFAP⁺ cells, suggesting astrogliosis occurring in a range of neuropathological states. See article by Aoidi et al. (dmm031278). Cover image is licensed under a Creative Commons Attribution 4.0 International license.

REVIEW

Metastasis in context: modeling the tumor microenvironment with cancer-on-a-chip approaches

Sleeboom, J. J. F., Eslami Amirabadi, H., Nair, P., Sahlgren, C. M. and den Toonder, J. M. J.

dmm033100

RESEARCH ARTICLES

Neutrophil-specific knockout demonstrates a role for mitochondria in regulating neutrophil motility in zebrafish

Zhou, W., Cao, L., Jeffries, J., Zhu, X., Staiger, C. J. and Deng, Q.

dmm033027

Feeding difficulties, a key feature of the *Drosophila* NDUFS4 mitochondrial disease model

Foriel, S., Beyrath, J., Eidhof, I., Rodenburg, R. J., Schenck, A. and Smeitink, J. A. M.

dmm032482

Lymphoblastoid cell lines as a model to understand amyotrophic lateral sclerosis disease mechanisms

Pansarasa, O., Bordoni, M., Drufuca, L., Diamanti, L., Sproviero, D., Trotti, R., Bernuzzi, S., La Salvia, S., Gagliardi, S., Ceroni, M. and Cereda, C.

dmm031625

The role of the microRNA-146a/complement factor H/interleukin-1 β -mediated inflammatory loop circuit in the perpetuate inflammation of chronic temporal lobe epilepsy

Li, T.-R., Jia, Y.-J., Ma, C., Qiu, W.-Y., Wang, Q., Shao, X.-Q. and Lv, R.-J.

dmm031708

Vangl2 disruption alters the biomechanics of late spinal neurulation leading to spina bifida in mouse embryos

Galea, G. L., Nychyk, O., Mole, M. A., Moulding, D., Savery, D., Nikolopoulou, E., Henderson, D. J., Greene, N. D. E. and Copp, A. J.

dmm032219

Identification of protective postexposure mycobacterial vaccine antigens using an immunosuppression-based reactivation model in the zebrafish

Myllmäki, H., Niskanen, M., Luukinen, H., Parikka, M. and Rämetsä, M.

dmm033175

Mek1^{Y130C} mice recapitulate aspects of human cardio-facio-cutaneous syndrome

Aoidi, R., Houde, N., Landry-Truchon, K., Holter, M., Jacquet, K., Charron, L., Krishnaswami, S. R., Yu, B. D., Rauen, K. A., Bisson, N., Newbern, J. and Charron, J.

dmm031278

Altered expression of the Cdk5 activator-like protein, Cdk5 α , causes neurodegeneration, in part by accelerating the rate of aging

Spurrier, J., Shukla, A. K., McLinden, K., Johnson, K. and Giniger, E.

dmm031161

Vitamin D deficiency in the *Apc*^{Pirc/+} rat does not exacerbate colonic tumorigenesis, while low dietary calcium might be protective

Irving, A. A., Duchow, E. G., Plum, L. A. and DeLuca, H. F.

dmm032300

Identification of early indicators of altered metabolism in normal development using a rodent model system

Prabakaran, A. D., Karakkat, J. V., Vijayan, R., Chalissery, J., Ibrahim, M. F., Kaimala, S., Adeghate, E. A., Al-Marzouqi, A. H., Ansari, S. A., Mensah-Brown, E. and Emerald, B. S.

dmm031815

RESOURCE ARTICLE

Disease Ontology: improving and unifying disease annotations across species

Bello, S. M., Shimoyama, M., Mitraka, E., Laulederkind, S. J. F., Smith, C. L., Eppig, J. T. and Schriml, L. M.

dmm032839