



**Cover:** The absence of the CAR-like membrane protein (CLMP) caused impaired peristaltic contractions in the intestinal tract and ureter due to a lack of gap-junctional communication between smooth muscle cells. Insufficient transport of chyme and urine caused a fatal delay to thrive and provoked a severe hydronephrosis in *Clmp*-knockout mice. Intrapelvic ink injections demonstrated the absence of physical obstructions (the image shows a *Clmp*-knockout urinary system). Ink easily flowed through the urinary path to the bladder (bottom of image). See article by Langhorst et al. (dmm032128). Cover image is licensed under a Creative Commons Attribution 4.0 International license.

## EDITORIAL

Disease Models & Mechanisms 2018: keeping you in the picture  
**Hackett, R. (Managing Editor)**  
dmm034223

## REVIEWS

Use of zebrafish to study *Shigella* infection  
**Duggan, G. M. and Mostowy, S.**  
dmm032151

Gastroenteropancreatic neuroendocrine neoplasms: genes, therapies and models  
**Kawasaki, K., Fujii, M. and Sato, T.**  
dmm029595

Intestinal epithelial cell polarity defects in disease: lessons from microvillus inclusion disease  
**Schneeberger, K., Roth, S., Nieuwenhuis, E. E. S. and Middendorp, S.**  
dmm031088

## RESEARCH ARTICLES

Developmental abnormalities in supporting cell phalangeal processes and cytoskeleton in the *Gjb2* knockdown mouse model  
**Chen, S., Xie, L., Xu, K., Cao, H.-Y., Wu, X., Xu, X.-X., Sun, Y. and Kong, W.-J.**  
dmm033019

Spliceosomal components protect embryonic neurons from R-loop-mediated DNA damage and apoptosis  
**Sorrells, S., Nik, S., Casey, M., Cameron, R. C., Truong, H., Toruno, C., Gulfo, M., Lowe, A., Jette, C., Stewart, R. A. and Bowman, T. V.**  
dmm031583

Inorganic arsenic causes fatty liver and interacts with ethanol to cause alcoholic liver disease in zebrafish  
**Bambino, K., Zhang, C., Austin, C., Amarasiriwardena, C., Arora, M., Chu, J. and Sadler, K. C.**  
dmm031575

Motor neuron degeneration correlates with respiratory dysfunction in SCA1  
**Orengo, J. P., van der Heijden, M. E., Hao, S., Tang, J., Orr, H. T. and Zoghbi, H. Y.**  
dmm032623

Divergent effects of adrenaline in human induced pluripotent stem cell-derived cardiomyocytes obtained from hypertrophic cardiomyopathy  
**Prajapati, C., Ojala, M. and Aalto-Setälä, K.**  
dmm032896

The IgCAM CLMP regulates expression of Connexin43 and Connexin45 in intestinal and ureteral smooth muscle contraction in mice  
**Langhorst, H., Jüttner, R., Groneberg, D., Mohtashamdolatsahi, A., Pelz, L., Purfürst, B., Schmidt-Ott, K. M., Friebe, A. and Rathjen, F. G.**  
dmm032128

Superior cervical gangliectomy induces non-exudative age-related macular degeneration in mice  
**Dieguez, H. H., Romeo, H. E., González Fleitas, M. F., Aranda, M. L., Milne, G. A., Rosenstein, R. E. and Dorfman, D.**  
dmm031641

Environmental factors regulate Paneth cell phenotype and host susceptibility to intestinal inflammation in *Irgm1*-deficient mice  
**Rogala, A. R., Schoenborn, A. A., Fee, B. E., Cantillana, V. A., Joyce, M. J., Gharaibeh, R. Z., Roy, S., Fodor, A. A., Sartor, R. B., Taylor, G. A. and Gulati, A. S.**  
dmm031070

Inhibition of galectin-3 ameliorates the consequences of cardiac lipotoxicity in a rat model of diet-induced obesity  
**Marín-Royo, G., Gallardo, I., Martínez-Martínez, E., Gutiérrez, B., Jurado-López, R., López-Andrés, N., Gutiérrez-Tenorio, J., Rial, E., Bartolomé, M. V., Nieto, M. L. and Cachofeiro, V.**  
dmm032086

## RESOURCE ARTICLES

Modelling glioblastoma tumour-host cell interactions using adult brain organotypic slice co-culture  
**Marques-Torrejon, M. A., Gangoso, E. and Pollard, S. M.**  
dmm031435

High-throughput screen for compounds that modulate neurite growth of human induced pluripotent stem cell-derived neurons  
**Sherman, S. P. and Bang, A. G.**  
dmm031906