



Cover: Confocal image by Dr Javier Gilbert-Jaramillo, Dr Paul K. Reardon and Professor William James of an unguided 3D cortical brain organoid recapitulating cortical development after 10 days of differentiation. Stained by immunofluorescence for neuronal markers Tuj1 (magenta), Pax6 (green), and DAPI (blue). The work by Gilbert-Jaramillo and colleagues on the cellular metabolism of neuronal progenitors differentiated using a 2D method shows that these cells also recapitulate cortical development. This facilitated the discovery of specific metabolic alterations induced by Zika virus, which could potentially contribute to the pathophysiology over each trimester. Image licensed under a Creative Commons Attribution 4.0 International license.

MEETING REVIEW

New horizons of microphysiological systems: India forging its path in human-relevant research

Parvatam, S., Mahadik, K., Banerjee, A., Patil, K., Radha, V. and Rao, M.

bio059847

A YEAR AT THE FOREFRONT

A Year at the Forefront of Bacterial Defense Systems Against Neutrophilic Oxidants

Sultana, S. and Dahl, J.-U.

bio059809

RESEARCH ARTICLES

Kinetics of Arf1 inactivation regulates Golgi organisation and function in non-adherent fibroblasts

B.R., R., Shah, N., Joshi, P., Madhusudan, M. S. and Balasubramanian, N.

bio059669

Zika virus-induces metabolic alterations in fetal neuronal progenitors that could influence in neurodevelopment during early pregnancy

Gilbert-Jaramillo, J., Purnama, U., Molnár, Z. and James, W. S.

bio059889

Quantification of basal stem cell elongation and stress fiber accumulation in the pseudostratified airway epithelium during the unjamming transition

Phung, T.-K. N., Mitchel, J. A., O'Sullivan, M. J. and Park, J.-A.

bio059727

Impaired fin regeneration and angiogenesis in aged zebrafish and turquoise killifish

Örling, J., Kosonen, K., Villman, J., Reichard, M. and Paatero, I.

bio059622

Metabolic shift towards oxidative phosphorylation reduces cell-density-induced cancer-stem-cell-like characteristics in prostate cancer *in vitro*

Lai, H. W., Kasai, M., Yamamoto, S., Fukuhara, H., Karashima, T., Kurabayashi, A., Furihata, M., Hanazaki, K., Inoue, K. and Ogura, S.-i.

bio059615

Differential effects of Mendelian *GDAP1* clinical variants on mitochondria-lysosome membrane contacts sites

Cantarero, L., García-Vargas, G., Hoenicka, J. and Palau, F.

bio059707

FIRST PERSON

First person – Rajeshwari B. R.

bio059944

First person – Lara Cantarero

bio059931

CORRECTION

Correction: IL-31 plays dual roles in lung inflammation in an OVA-induced murine asthma model

Huang, J., Yue, H., Jiang, T., Gao, J., Shi, Y., Shi, B., Wu, X. and Gou, X.

bio059869