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Microbiology and Cell Biology Meet at the Pathogenesis Confluence

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Editorial

Cultured cells' experimental applications are as diverse as the cell kinds that can be produced in vitro. However, in a therapeutic setting, cell culture is most typically associated with the development of model systems for studying basic cell biology, replicating disease pathways, or investigating the toxicity of novel medicinal molecules. The ability to modify genes and molecular pathways is one of the benefits of employing cell culture for these applications. Furthermore, the homogeneity of clonal cell populations or specific cell types, as well as well-defined culture systems, eliminates interfering genetic or environmental variables, allowing for data generation with high reproducibility and consistency, which cannot be guaranteed when studying whole organ systems. This issue titles with a Commentary from Mostowy and Cossart, in which they utilized two vignettes from bacterial microorganisms cytoskeletal changes and posttranslational alterations to show how the investigation of microbial pathogenesis and cell science have informed one another [1].

The subject of cytoskeletal modifications is repeated by Frenal and Solvate fare when they talk about it with regards to apicomplexan parasitism, addressing both the parasite and host cytoskeleton. Posttranslational modifications, all the more explicitly ubiquitination with regards to viral disease, is a point that highlights again in the Review from Isaacson and Poleg. Heretic and Levine assume the subject of autophagy, examining its various jobs in have resistance against microbes, the variations that microorganisms have advanced to counter and utilize have autophagy pathways, lastly to address the arising idea of how eukaryotic microorganisms might use their own autophagy hardware. Once more, the microorganism's characteristic cell science stands out at the point when Bilker examines calcium-subordinate flagging pathways in different parts of apicomplexan science. Bieniasz takes us on an excursion through the cell with HIV while the infection collects and uses the host pathways to head out to and empower virion maturing from the cell surface, where it is fastened and kept down by the host, bringing about a back-and-forth between the infection and host [2].

With reference to tethering to the host cell surface, Kline talk about bacterial systems for sticking to and colonizing host cells and Comstock examines how polysaccharides on the host and bacterial cell surface add to have microorganism mutualism in the mammalian intesprong. As opposed to enter by means of cell surface receptors, some infections look for and take advantage of cell side entryways or intercellular junctional proteins for passage and spread as examined by Bergelson. Once in the cell, a few intracellular microorganisms cover themselves inside a vacuole. Instruments of vacuole support by the microbe and the results of its disturbance are talked about by Kumar what's more, Valdivia. To achieve these different undertakings, microorganisms need a cell organic tool stash. Occasion portrays simply such a tool stash, the effectors of the bacterial emission framework, utilized by bacterial microorganisms to dabble with the host cell [3-5].

Conflict of Interest

None.

References

1. Schierack, Peter, Marcel Nordhoff, Marion Pollmann and Karl Dietrich Weyrauch, et al. "Characterization of a porcine intestinal epithelial cell line for *in vitro* studies of microbial pathogenesis in swine." *Histochemi C Biol* 125 (2006): 293-305.
2. Johnson, James R., Andrew C. Murray, Abby Gajewski and Maureen Sullivan, et al. "Isolation and molecular characterization of nalidixic acid-resistant extraintestinal pathogenic Escherichia coli from retail chicken products." *Antimicr Ag Chemoth* 47 (2003): 2161-2168.
3. Stephens, Richard S. "The cellular paradigm of chlamydial pathogenesis." *Tre Microbiol* 11 (2003): 44-51.
4. Lourbakos, Afrodite, YuPing Yuan, Alison L. Jenkins and James Travis, et al. "Activation of protease-activated receptors by gingipains from *Porphyromonas gingivalis* leads to platelet aggregation: A new trait in microbial pathogenicity." *Blo J Ame Soci Hematol* 97 (2001): 3790-3797.
5. Flannagan, Ronald S., Gabriela Cosío and Sergio Grinstein. "Antimicrobial mechanisms of phagocytes and bacterial evasion strategies." *Nat Rev Microbiol* 7 (2009): 355-366.

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