

# Organoids: A New Cell Technology Model to Understand Zika Virus Induced Microcephaly

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## Editorial

Zika virus (ZIKV) infection is the present big problem. As a vector borne disease, this infection becomes a problem in several tropical areas around the world. A great concern is the possibility that the transplacental transmission of the pathogen can result in microcephaly child [1]. To understand the pathophysiology of microcephaly due to ZIKV infection is a very interesting topic. Adding to the report by Sakkas et al. [1], the new technology for understanding the pathophysiology of ZIKV infection should also be mentioned. In fact, there are many reports on histopathology and molecular pathology of the ZIKV virus infected cases with microcephaly [2,3]. Nevertheless, those works do not address the developmental pathology.

The use of animal models might be partially useful, however, it cannot represent the exact process in human beings [4]. To study the developmental pathology, the use of the advanced cell technology, organoids is an interesting alternative technique. The use of brain organoids for understanding ZIKV induced microcephaly is an interesting approach. Qian et al. recently discussed "perspectives on overcoming limitations of current organoid systems for their future use in ZIKV research [5]." In fact, organoids is the new cell technology that is proposed for its advantage in assessment of pathophysiology of many medical disorders. The use of organoids on the pathogenesis of ZIKV infection is also proposed in the medical literature. Nevertheless, there are many limitations of using organoids at present.

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