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

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He 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. He 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 reflect the developmental pathology. He use of animal models might be partial 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. He 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. He use for cODrLficDtLon on the pathogenesis of ZIKV infection is also proposed in the medical literature. Nevertheless, there are many limitations of using organoids at present. He usefulness of using organoids technology as a way to assess the pathogenesis of ZIKV induced microcephaly can be expected. Nevertheless, there should be a balanced discussion of the topicincluding highlighting some of the limitations with using organoid models to understand ZIKV. He important concern is lack for the ability to assess or model the complete immunopathogenesis that might related to the ZIKV induced microcephaly. To assess the additional role of immunopathogenesis, the actual animal model is still also needed [6]. In addition, the ogranoids model might not be able to answer the epidemiological. dL¡erence of ZIKV induced microcephaly in tropical America and Asia. He e¡ect of genetic and epigenetic relating to each setting cannot be assessed by organoids study. Although organoids might clarify the pathological e¡ect of ZIKV, it is no doubt that there will not be a finDO proof for the case of microcephaly since the organoids cannot be able to finDOO\ develop to the overt phenotype of microcephaly. Finally, the adverse or unwanted e¡ect of organoids model is the topic that should not be forgoten. Here is still no proof on the safety of the technology and there is a need to verify whether there is any environmental toxicology e¡ect of the organoids model. HLs is a big ethical issue for this new technology [7].

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