Using Human Induced Pluripotent Stem Cells To Investigate Neurodevelopmental Effects Of Human Cytomegalovirus

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1. Introduction: Human induced pluripotent stem cells (iPSCs) derived from human thymocytes can be used to model neurodevelopmental diseases. These cells can also be used to study the effects of viruses on neurodevelopment.

2. Methods: We generated iPSCs from human thymocytes, and exposed them to human cytomegalovirus (HCMV). The effects of HCMV infection on neurodevelopment were then assessed.

3. Results: HCMV infection of iPSCs led to changes in gene expression, which were associated with neurodevelopmental disorders. These changes were also observed in human thymocytes infected with HCMV.

4. Conclusion: Our results suggest that iPSCs derived from human thymocytes can be used to study the effects of HCMV on neurodevelopment.

Figures:

- Figure 1: Schematic diagram of the experiment.
- Figure 2: Gene expression analysis of iPSCs infected with HCMV.
- Figure 3: Neuronal differentiation of iPSCs after HCMV infection.
- Figure 4: Immunohistochemistry of iPSCs infected with HCMV.
- Figure 5: Western blot analysis of iPSCs infected with HCMV.

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