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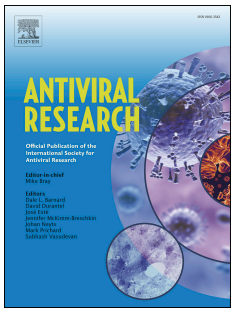

Infection of neuroblastoma cells by rabies virus is modulated by the virus titer

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Title: Infection of Neuroblastoma Cells by Rabies Virus Is Modulated by the Virus Titer

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ABSTRACT

Rabies is a lethal viral infection that can affect almost all mammals, including humans. To better understand the replication of *Rabies lyssavirus*, we investigated if the viral load in brains naturally infected with rabies influences viral internalization and viral growth kinetics in neuroblastoma cells, and if the viral load affects mortality in mice after intradermal infection. We noted that high initial viral loads in brains (group II) were unfavourable for increasing viral titers during serial passages in neuroblastoma cells when compared to low initial viral loads in brains (group I). In addition, group I strains showed higher viral growth and enhanced internalization efficiency in neuroblastoma cells than group II strains. However, we observed that the dominant virus subpopulation in group II promoted efficient viral infection in the central nervous system in the new host,