

GLIAL CELLS RESPONSE TO *N. CANINUM* INFECTION

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Neosporosis is a disease caused by *Neospora caninum*, an intracellular parasite that infects a wide range of animals, causes abortion in cattle, and neurologic disease in dogs. To study the pathogenic effects of this parasite, especially its correlation with the immunological system, we infected rat glial cells *in vitro*. Glial cells are responsible for homeostasis, nutrition, as well as the immune response and the interactions between neurons and glia are essential to the development and function of the central nervous system (CNS). Astrocytes and mixed glial cultures (with about 86% of astrocytes and 12% of microglia) were infected for 24 and 72h. Both cultures released TNF- α , NO and high levels of IL-10. Mixed glial cultures release also high level of IL-6. In both cultures, IFN- γ was not detected, probably in function of the high levels of IL-10. These models are adequate to study the effects of neosporosis in the CNS, where infected glial cells with *N. caninum* show a Th2 type response.