

Th1 or Th2 IMMUNE RESPONSE: IS THERE A PROTECTIVE PROFILE
IN RAT GLIAL CELLS INFECTED BY *Neospora caninum*?

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Neospora caninum, causes abortion in cow and neurologic disorders in dogs. A systemic Th1 immune response has been reported against this protozoan. However, the immunopathogenesis in the central nervous system (CNS) remains unclear. The aim of this study was to identify the cytokine profile in the CNS after *N. caninum* infection. We used therefore an in vitro model of primary cultures obtained from brain cortex of newborn rats infected with tachyzoites. The mean levels released 24 or 72h after infection were respectively 2.3 ± 0.8 and 4.2 ± 1.1 pg/mg of NO, more than 4000 pg/ml of IL-6, 2.7 ± 0.69 and 4.1 ± 0.64 pg/mg of IL-10 and 3.8 ± 0.6 and 3.7 ± 0.6 pg/mg of TNF- α . The level of NO and TNF- α might be involved in an innate response to the parasite intracellular destruction. However, this mechanism stimulates inflammation and promotes cellular death. The fact that INF- γ was not detected in these cultures might be related to the presence of a high level of IL-10. This cytokine might suppress the deleterious effects of INF- γ . Taken together, these results are in favour of a Th2 immune profile, involved in a protective role in the CNS.