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((Parasites))

2 stage

Lab 5

Toxoplasma

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Toxoplasma gondii

is a species that causes toxoplasmosis Found worldwide, *T. gondii* is capable of infecting virtually all warm-blooded animals, 1 but cats are the only known definitive hosts in which the parasite may undergo sexual reproduction \ Intermediate host , All mammals and birds ,In humans, particularly infants and those with weakened immunity, *T. gondii* infection is generally asymptomatic but may lead to a serious case of toxoplasmosis. *T. gondii* can initially cause mild, flu-like symptoms in the first few weeks following exposure, but otherwise, healthy human adults are asymptomatic. This asymptomatic state of infection is referred to as a latent infection, and it has been associated with numerous subtle behavioral, psychiatric, and personality alterations in humans. Behavioral changes observed between infected and non-infected humans include a decreased aversion to cat urine (but with divergent trajectories by gender) and an increased risk of schizophrenia. Preliminary evidence has suggested that *T. gondii* infection may induce some of the same alterations in the human brain as those observed in rodents.

Scientific Classification of Toxoplasma

Class: Conoidasida

Genus: *Toxoplasma*; Nicolle & Manceaux, 1909

Scientific name: *Toxoplasma gondii*

Domain: Eukaryota

Family: Sarcocystidae

Order: Eucoccidiorida



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Phylum: Apicomplexa

life cycle

The life cycle of *T. gondii* may be broadly summarized into two components: a sexual component that occurs only within cats (felids, wild or domestic), and an asexual component that can occur within virtually all warm-blooded animals, including humans, cats, and birds.² Because *T. gondii* can sexually reproduce only within cats, cats are therefore the definitive host of *T. gondii*. All other hosts – in which only asexual reproduction can occur – are intermediate hosts



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Toxoplasmosis (*Toxoplasma gondii*)

