Little Mind Benders

Norhafizah Mohtarrudin, Fauziah Kassim and Fatimah Ahmad Sharifuddin

Toxoplasma gondii is a unique yet dangerous protozoan parasite. It sneaks into the brain and alters the host's behaviour and health. Imagine how these tiny little creatures invading the brain and becoming the inner companions, hanging out and wandering freely in the host's brain. These little creatures possess mind altering ability that can reform the host's central nervous system.

These little mind benders have a unique reproductive strategy. It makes its home and can only reproduce within cat's digestive tract. It sends its offspring via cat faeces, hoping to infect the rodents. Once infected, it makes its way and lodges into the rodent's brain. The parasite damages the smelling relay center of the rodent's brain which disable it to the presence of cat and cat's urine. Toxoplasma gondii also produces effector proteins that alter the neurones involved in memory and learning. It quells fear of cat in rodents and turn this fear into fatal attraction, and can cause the rodents to become cat feed. This dreadful vicious reproductive cycle continues.

Toxoplasma gondii wormed its way into human via cat faeces, uncooked meat or contaminated food. Once consumed, it hacks and lodges in the brain. It subtly changes the person's personality and behavior, and it may increase the risk of suicidal attempt, brain cancer and schizophrenia. Studies have linked this parasite with recurrent abortions, congenital anomalies, automobile accidents, and greater odds of having sons than daughter, extra height and unusual opinion about smell of urine.





