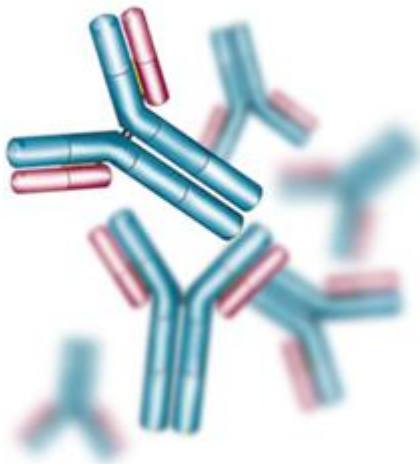
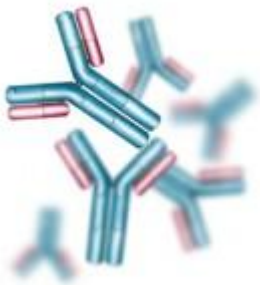


T. gondii ligand shown to promote inflammatory monocytes and provide resistance to bacterial infection



Previous murine studies have shown that mice with a chronic *Toxoplasma gondii* infection are able to survive lethal co-infections with unrelated pathogens, such as *Listeria monocytogenes*. However a mechanistic analysis of why this occurs was not performed and is therefore unknown. This study further analyzed these findings and shows that this enhanced survival against *L. monocytogenes* is due to early reduction of bacterial burdens and elicitation of Ly6C⁺ inflammatory monocytes. Known to be essential in host defense against *T. gondii*, as evidenced by impaired inflammatory monocyte

emigration during *T.gondii* infections resulting in severe inflammation and failure to control parasite replication. Thus using a co-infection model to explain why *T. gondii*-infected mice are more resistant to the bacterium *Listeria monocytogenes* the study was able to show that stimulation of the rodent specific Toll-like receptor TLR11 by the *T. gondii* ligand, profilin, can recruit inflammatory monocytes, and that these monocytes can protect the host against *L. monocytogenes*. Making profilin an important tool for the study of monocyte biology and its immunological benefit against an unrelated pathogen.

[Neal, L. et al. 2014. Toxoplasma gondii Profilin Promotes Recruitment of Ly6Chi CCR2+ Inflammatory Monocytes That Can Confer Resistance to Bacterial Infection. *PLoS*.](#)