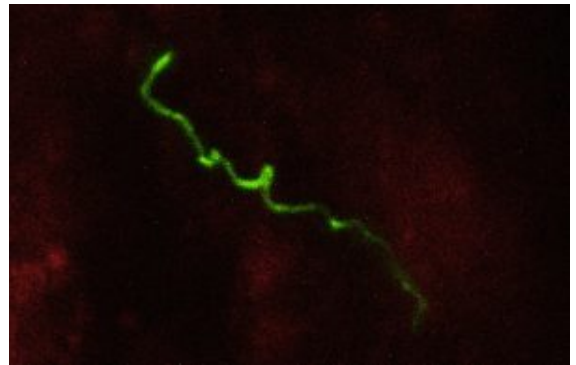


The Role of CD4 T Cell Responses in Persistent *Borrelia burgdorferi* Infections



Borrelia burgdorferi in mouse, Photo by Stephen W. Barthold, DVM, PhD

A study conducted by Elizabeth M. Hammond, *et al.*, examining CD4 T cell responses associated with persistent *B. burgdorferi* (*Bb*) infections, has been published in *Current Opinion in Immunology*.

The researchers found that infecting mice with *Bb* triggers CD4 T cell activation in secondary lymphoid tissues, where they continue to spread into other various diseased tissues. Regardless of this activation and the associated CD4 T cell-dependent antibody responses, it was observed that *Bb* is nevertheless able to establish continued infection in *Bb* reservoir hosts despite the absence of overt disease. These findings call into question the efficacy of anti-*Bb* T cell responses.

After examining current publications, the scientists suggest that CD4 T cells may create a host cell target of *Bb*-mediated immune circumvention, thus causing these cells to

unsuccessfully execute a beneficial inflammatory response as well as the inability to support the induction of efficient *Bb*-specific antibodies.

According to the researchers, these findings indicate that supporting the generation of more efficient CD4 T cell responses may aid in subduing persistent *Bb* infection.

Read a summary of the study on [ScienceDirect.com](#).

Read more about Chronic Lyme Disease research.