

Tara J. Moriarty



Current Position: Postdoctoral fellow in the laboratory of Dr. George Chaconas in the Department of Biochemistry & Molecular Biology at the University of Calgary

Education: Ph.D. in Biochemistry (2005) from McGill University

Non-scientific Interests: Reading, watching films, hiking, cooking, throwing parties

I completed my Ph.D. in the laboratory of Dr. Chantal Autexier at McGill University, where I studied the composition and mechanistic function of the human telomerase enzyme. For my postdoctoral training, I chose the laboratory of Dr. George Chaconas at the University of Calgary because I wanted to study hairpin telomere biology and the mechanisms of linear DNA replication in the bacteria which cause Lyme disease, *Borrelia burgdorferi*. It is becoming increasingly clear that hairpin telomeres are a common solution to the end replication problem in non-eukaryotes with linear genomes, and thus this is a fascinating field of study. Replicated hairpin telomeres are resolved by telomere resolvase (ResT), and the study presented here identifies a residue in *B. burgdorferi* ResT which is responsible for the enzyme's ability to resolve the 19 different telomere substrates found in *B. burgdorferi*. In addition to ongoing work investigating ResT and hairpin telomere biology *in vivo*, I have developed an alternate scientific life studying the hematogenous dissemination mechanisms of *B. burgdorferi* in living hosts using intravital microscopy.

Read Dr. Moriarty's article entitled: Identification of the Determinant Conferring Permissive Substrate Usage in the Telomere Resolvase, ResT

<http://www.jbc.org/cgi/content/full/284/35/23293>