

RISE Talks Series

Who? Brianne Barker, Assistant Professor of Biology

What? **Does HIV cause AIDS?**

Pattern recognition and viral infection

Where? Hall of Sciences, Room 326

When? 12:00-1:00 on Thursday, April 10

HIV infection of humans and SIV infection of certain non-human primate species lead to AIDS. This destruction of the immune system is due to the death of CD4+ T cells as well as long-term inflammation. The reasons for CD4+ T cell death following HIV/SIV infection are not well understood. However, other species of non-human primates are naturally infected with SIV and do not suffer from this immunodeficiency. Understanding the immune response to SIV in these primates may help explain the mechanisms of immunodeficiency in AIDS. Recent evidence suggests that receptors called pattern recognition receptors may play a role in cell death during HIV infection. These innate immune receptors are particularly interesting as they directly link pathogen recognition with inflammation and cell death. I am working to isolate pattern recognition receptors from non-human primate species and to compare the functions of these receptors. In this talk, I will discuss the evidence suggesting the role of pattern recognition receptors during HIV/SIV infection and the projects that are underway in my lab to isolate these receptors and examine their function.