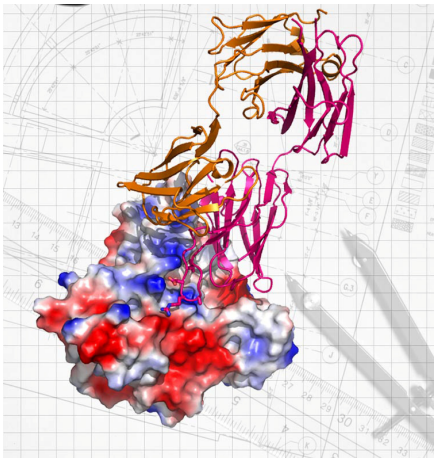
GUEST SPEAKER SEMINAR

Molecular Genetics
UNIVERSITY OF TORONTO

# Structure-based design of improved passive immunotherapy reagents for HIV treatment and/or prevention



Over 30 years after the emergence of HIV-1, there is no effective vaccine. Following infection by HIV-1, the host immune response is unable to clear the virus using neutralizing antibodies. The only target of antibodies is the trimeric envelope spike complex, but HIV-1 can usually evade anti-spike antibodies due to rapid mutation of its two spike glycoproteins. We are using structure-based protein design methods to engineer antibodies that can resist some of the common routes of HIV mutation, with the hope that the designed antibodies could be used in passive immunotherapy methods for HIV treatment and/or prevention.

**Dr. Pamela Bjorkman**
Howard Hughes Medical Institute
California Institute of Technology

Host: Dr. Howard Lipshitz

**Date:** Monday September 23, 2013
**Time:** 4:00 p.m.
**Place:** FitzGerald Building
150 College Street
Room 103