

JEFFREY ISHIZUKA

NIH-Oxford and Rhodes Scholar 2007

Degree: Williams College B.A. Chemistry, 2004

Research Area: Immunology and Infectious Diseases; HIV/AIDS



Having graduated Phi Beta Kappa from Williams College in 2004 with a B.A. in Chemistry, Jeffrey Ishizuka currently studies at Oxford University on a Rhodes Scholarship, aiming to complete his PhD in Immunology in 2008. Jeffrey's first experience with research took place at Oxford in 2003 when he predicted unknown energy levels in the vibrational-rotational spectrum of FeH. In his research, he employed a variety of methods including combination differences and mapping trends in amplitude. Returning to Williams in July of that year, Jeffrey worked on deriving mathematical models for chaotic molecular behavior, receiving Highest Honors on a thesis modeling the kinetic behavior of the HIV-1 Rev protein and winning the Leverett Mears Prize for outstanding scholastic achievement. After graduating from Williams, Jeffrey spent the summer at Children's Hospital in Columbus, Ohio, working to engineer a hybrid SIV-SFV vector in the interest of developing an HIV vaccine. He next moved to Oxford, where he studied the kinetic, structural and thermodynamic components of immunodominant TCR-pMHC recognition in the context of influenza infection for his PhD at the Weatherall Institute of Molecular Medicine, recently publishing the results of this study in the journal, *Immunity*. At the NIH he is continuing studies of the various roles of cross-reactivity and virus-specific antibody in the development of the CD8+ T-cell repertoire. Outside the lab, Jeffrey enjoys several sports including rugby and wrestling, as well as playing the piano and writing poetry.