

Public Abstract

First Name:Daniel

Middle Name:James

Last Name:Salamango

Adviser's First Name:Marc

Adviser's Last Name:Johnson

Co-Adviser's First Name:

Co-Adviser's Last Name:

Graduation Term:FS 2015

Department:Biochemistry

Degree:PhD

Title:Characterizing the Retroviral Envelope Glycoprotein Membrane Proximal External Region and Membrane-Spanning Domains for their Roles in Helical Alignment, Fusogenicity, and Incorporation into Viral Particles.

Viruses use surface proteins to gain access into target cells to initiate infection. How these surface proteins make it into assembling viral particles and the exact details of the entry process are poorly understood. My work here provides insight into how Murine Leukemia Virus (MLV) acquires its surface protein and how this surface protein initiates entry into the target cell. I have identified that two domains in the surface protein dictate its ability to be acquired by the virus. Further, I have identified that four specific amino acid residues in a specific domain of the protein significantly contribute to the entry mechanism