

Oral presentation

## **The Cell Biology of HIV-1 Entry**

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The interaction of HIV-1 envelope glycoproteins with CD4 and coreceptors triggers a barrage of conformational changes in HIV-1 gp120 and gp41, which lead to the gp41 six-helix bundle formation that drives the membrane merger and eventual fusion. Although significant progress has been made in understanding HIV fusion, little is known about the cell biological processes that impact on HIV entry. Manipulating lipids has yielded important insights into the role that membrane of the host cell plays in regulating the HIV-1 entry process. In this talk I will describe how lipid manipulation affects HIV-1 entry by 1) altering the disposition and lateral mobility of HIV-1 receptors, 2) endosomal re-routing, and 3) cytoskeletal remodeling. Manipulation of lipid metabolism may therefore constitute a promising avenue for the development of antiretrovirals.