May 8

“A pathway to ART-free suppression of HIV-1”

Research / Bio

Dr. Michael Farzan is currently Professor and Co-Chair of the Department of Immunology and Microbial Science, at The Scripps Research Institute (TSRI) in Jupiter Florida. Dr. Farzan received his undergraduate degree in Government from Harvard College and his Ph.D. in Immunology from Harvard Medical School (HMS). He was appointed Assistant Professor at HMS in 2002, and left HMS as Professor of Microbiology and Immunobiology in 2012 to join TSRI. Dr. Farzan’s contributions include discovery of CCR5 sulfotyrosines and demonstration of their critical role in HIV-1 entry, discovery that the antigen-combining regions of HIV-1 neutralizing antibodies also incorporate functionally important sulfotyrosines, identification of the cellular receptors for the SARS coronavirus and for New World hemorrhagic fever arenaviruses, discovery of a family of restriction factors - the IFITM family - critical to the innate immune control of influenza A virus, and invention of eCD4-Ig, a very broad and potent HIV-1 entry inhibitor. Dr. Farzan’s HIV studies now focus on the best ways to use gene-therapy vectors, antibodies, and engineered constructs like eCD4-Ig to prevent and treat HIV-1 infections. His current goal is to show that this approach can establish a state of virologic remission in SHIV- and SIV-infected macaques. His COVID-19 studies focus on optimizing ACE2-Ig as viral inhibitor, and on identifying and characterizing optimal SARS-CoV-2 S-protein-based antigens.

Publications

Angiotensin-converting enzyme 2 is a functional receptor for the SARS coronavirus Li W, Et al. Nature 2003

AAV-expressed eCD4-Ig provides durable protection from multiple SHIV challenges. Gardner MR Et al. Nature. 2015

AAV-delivered eCD4-Ig protects rhesus macaques from high-dose SIVmac239 challenges. Gardner MR Et al. Sci Transl Med. 2019

We hope to see you there!