

Hunter College of the City University of New York
Department of Biological Sciences
Spring 2023 Inga Richter Seminar Series

Paul Feinstein, PhD
Professor of Biology
Hunter College, CUNY



SARS2-Spike S1 protein interactions with the ACE2 receptor

Is there a way to minimize the spread of viruses like SARS-CoV-2? When the COVID-19 pandemic struck in the winter of 2019, everyone had hoped it would stay confined to China. However, by early 2020 it had spread throughout world including the U.S. The first consistent symptom of COVID-19 was a complete loss of smell, also known as anosmia. This piqued my curiosity into the mechanism by which SARS-CoV-2 attacks and disrupts the mammalian olfactory system. It was at this point that I set up an in vitro assay to study the interactions of the SARS2-Spike protein and its receptor ACE2 (angiotensin converting enzyme) that is expressed in the olfactory epithelium. Here I have analyzed the binding characteristics of SARS2, Omicron BA.1, BA.2, Xbb.1.5 to determine the most effective means of blocking their binding to ACE2.

Monday, May 8, 2023 @12:30pm
Hunter North Room 926
Host: Ben Ortiz