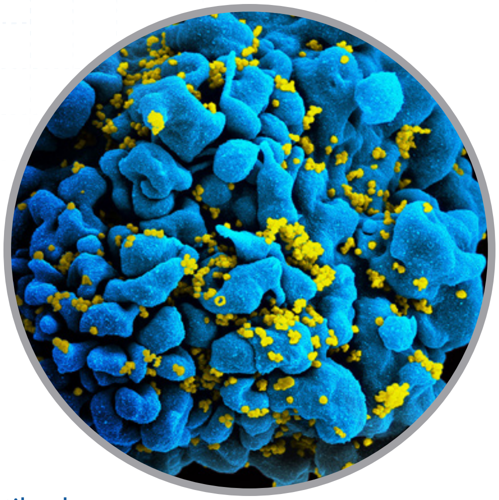
Advancing Infectious Disease Research and Vaccine Design

Octet® system users are at the forefront of research across a wide variety of applications. Below are a sampling of recent publications referencing Octet BLI data. Offering higher sample throughput and more assay versatility, the Octet platform is providing critical interactiosn data to help uncover new insights into disease mechanisms, therapeutic approaches, and vaccine design.



HIV-infected T-cell

HIV

In Vitro Affinity Maturation and Characterization of Anti-P24 Antibody for HIV Diagnostic Assay, Xia L, et al., *J Biochem*, 2015, 158(6):531–8

Immunochemical Engineering of Cell Surfaces to Generate Virus Resistance, Xie J, et al., *Proc Natl Acad Sci USA*, 2017, 114(18):4655–4660

Specific Interaction between eEF1A and HIV RT Is Critical for HIV-1 Reverse Transcription and a Potential Anti-HIV Target, Li D, et al., *PLoS Pathog*, 2015, 11(12):e1005289

Mimicry of an HIV Broadly Neutralizing Antibody Epitope with a Synthetic Glycopeptide, Alam SM, et al., *Sci Transl Med*, 2017, 9(381) 1

HIV-1 Neutralizing Antibodies with Limited Hypermutation from an Infant, Simonich C, et al., *Cell*, 2016, 166(1):77–87

Presenting Native-like Trimeric HIV-1 Antigens with Self-assembling Nanoparticles, He L, et al., *Nat Commun*, 2016, 7:12041

An HIV-1 Env-Antibody Complex Focuses Antibody Responses to Conserved Neutralizing Epitopes, Chen Y, et al., *J Immunol*, 2016, 197(10):3982–3998

Antibody-Mediated Internalization of Infectious HIV-1 Virions Differs among Antibody Isotypes and Subclasses, Tay MZ, et al., *PLoS Pathog*, 2016, 12(8):e1005817

Immunogenicity of a Prefusion HIV-1 Envelope Trimer in Complex with a Quaternary-Structure-Specific Antibody, Cheng C, et al., *J Virol*, 2015, 90(6):2740–55

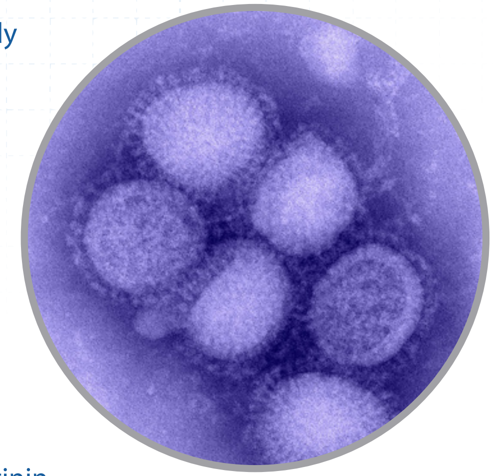
Influenza

An Influenza A Virus (H7N9) Anti-neuraminidase MonoclonalAntibody with Prophylactic and Therapeutic Activity *in Vivo*, Wilson J, et al., *Antiviral Res*, 2016, 135:48–55

Broadly-Reactive Neutralizing and Non-neutralizing Antibodies Directed against the H7 Influenza Virus Hemagglutinin Reveal Divergent Mechanisms of Protection, Tan G, et al., *PLoS Pathog*, 2016, 12(4):e1005578

Vaccine-elicited Antibody that Neutralizes H5N1 Influenza and Variants Binds the Receptor Site and Polymorphic Sites, Winarski KL, et al., *Proc Natl Acad Sci U S A*, 2015, 112(30):9346–51

Structural and Functional Studies of Influenza Virus A/H6 Hemagglutinin, Ni F, Kondrashkina E, and Wang Q, *PLoS One,* 2015, 10(7):e0134576

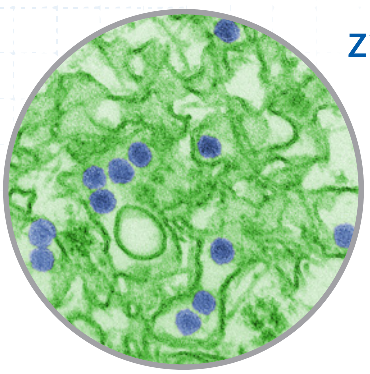


H1N1 Influenza virus

Zika and Dengue

Structural Basis of Potent Zika-dengue Virus Antibody Cross-Neutralization, Barba-Spaeth G, et al., *Nature*, 2016, 536(7614):48–53

Dengue Virus Infection Is through a Cooperative Interaction between a Mannose Receptor and CLEC5A on Macrophage as a Multivalent Hetero-Complex, Lo YL, et al., *PLoS One*, 2016, 11(11):e0166474



Zika virus

Other Viruses

Targeting a Novel RNA-Protein Interaction for Therapeutic Intervention of Hantavirus Disease, Salim N, et al., *J Biol Chem*, 2016, 291(47):24702–24714

Iterative Structure-based Improvement of a Fusion-glycoprotein Vaccine Against RSV, Joyce M, et al., *Nat Struct Mol Biol,* 2016, 23(9):811–20

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