BIOL-GA 1080 Viral Diseases

Instructor:  
Carol Reiss

Course Description:  
Details the molecular life cycles of viruses that infect mammalian cells. Topics covered include disease pathogenesis, immune evasion mechanisms, vaccination, and genetic immunization vectors.

Pre-requisite:  
Basic course in Molecular and Cellular Biology

Textbook and Required Materials:  
Weekly readings as assigned

Grading:  
Exams 65%  
Presentation/discussions 30%  
Class participation 5%

Topics:  
Biology of viruses  
Innate & adaptive immunity  
Viral evasion of host responses & oncolysis  
Picornaviruses (polio, EV68, EV71)  
Coxsackie & Hepatitis A Virus  
Rotaviruses & Norovirus  
Influenza, HCV  
Parainfluenza viruses (Measles, Respiratory Syncytial, Mumps, Hendra & Nipah virus)  
Arboviruses (Dengue, West Nile, Japanese Encephalitis, Powassan)  
Rabies  
Coronaviruses (MERS, SARS-CoV-1, SARS-CoV-2)  
Human retroviruses & HIV  
Adenoviruses, Papillomaviruses  
α, β, γ Herpes viruses; Poxviruses  
Re/Emerging infections (Lassa & Ebola)  
Re/Emerging infections (Zika, Yellow Fever, CHIKV)