



Infectious
Diseases Labs

ID LABS

ID LABS SEMINAR SERIES



Prof. Olivier Schwartz

Head of the Virus and Immunity Unit
Institut Pasteur, Paris, France



Wednesday 23rd June
4pm to 5pm (SGT)

Join zoom meeting [here](#)
Meeting ID: 986 7797 9713
Passcode: 642292



Webinar is open to all
No registration required

SARS-CoV-2 variants and host immune responses.

SARS-CoV-2 variants of concern (VOCs) with mutations increasing inter-individual transmission or allowing immune evasion have supplanted ancestral strains in multiple countries. While the mutations have arisen in different viral proteins, of particular interest is the Spike protein, which promotes viral binding to the ACE2 receptor, mediates viral fusion and entry, and is targeted by neutralizing antibodies. The B.1.1.7 variant was first identified in the UK, B.1.351 in South Africa and the P.1 lineage in Brazil. India is currently facing a large surge in COVID-19 cases, in large part caused by a new lineage termed B.1.617.

We are assessing the sensitivity of authentic infectious variants to various mAbs targeting the Spike, including clinically approved therapeutic antibodies. We are examining the neutralization potency of sera from convalescent individuals and vaccine recipients. We are also studying the mechanisms of syncytia formed between infected cells and neighboring cells. These syncytia are formed in cell culture and detected in patients.

Prof. Olivier Schwartz is head of the Virus and Immunity unit at Institut Pasteur since 2007. His team studies how human pathogenic viruses, such as HIV and SARS-CoV-2, replicate and interact with the host immune system. His team is assessing the role of restriction factors, cellular proteins often induced by IFN and thus essential components of the host innate immunity, which inhibit viral replication at discrete steps of the viral life cycle. They are also studying how the humoral immune response controls viral replication.