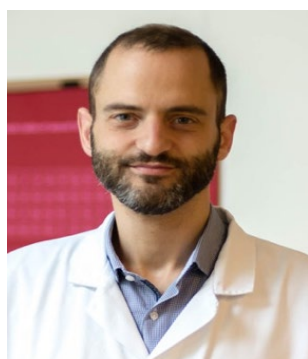




Infectious  
Diseases Labs

ID LABS



## Dr Sylvain Cardinaud, PhD

Vaccine Research Institute



Join zoom meeting [here](#)  
Meeting ID: 922 7777 0407  
Passcode: 685831



**Monday, 13 June 2022**  
5:00pm to 6:00pm (SGT)

Webinar is open to all  
No registration required

## Refining the DC-targeting vaccination for preventing emerging infectious diseases

The development of safe, long-term, effective vaccines is still a challenge for many infectious diseases. Thus, the search of new vaccine strategies and production platforms that allow rapidly and effectively responding against emerging or reemerging pathogens has become a priority in the last years. Targeting the antigens directly to dendritic cells (DCs) has emerged as a new approach to enhance the immune response after vaccination. This strategy is based on the fusion of the antigens of choice to monoclonal antibodies directed against specific DC surface receptors such as CD40. Since time is essential, in silico approaches are of high interest to select the most immunogenic and conserved epitopes to improve the T and B cells responses. Based on our previous experience in the fields of HIV, innovative DC-based vaccines have been developed for preventing emerging infectious diseases, such as SARS-Cov2 or Nipah virus.

**About the speaker:** After his PhD in immunology at the Pasteur Institute, Sylvain Cardinaud worked on antigen presentation at the University of Berkeley. He then studied host/pathogens interactions and immune factors promoting antiviral responses. In 2014, he joined the Vaccine Research Institute (VRI; Créteil-France) as a senior research scientist. The VRI, laboratory of excellence, was established to conduct research to accelerate the development of effective vaccines against HIV/AIDS, and emerging infectious diseases. The VRI's structure strengthens the links between basic research and translational research, patients associations and the socio-economic world, contributing to vaccine development. Sylvain Cardinaud is conducting research to develop innovative dendritic cells (DC)-based vaccines. Monoclonal antibodies targeting different subsets of DCs are fused with HIV antigens and produced in Henri Mondor Hospital, through cutting-edge equipment and technologies. Immune responses driven by fusion vaccine antibodies are studied in cell culture or in animal models. Sylvain Cardinaud is studying early HIV-specific immune events driven by targeted skin DCs, notably by deciphering the critical role of Langerhans cells in Tfh and antibody response after immunization. Sylvain Cardinaud is also refining the DC-targeting vaccine approach for the development of vaccines against emerging infectious diseases, notably SARS-Cov2 or Nipah virus.

Questions? Contact us at [seminars@idlabs.a-star.edu.sg](mailto:seminars@idlabs.a-star.edu.sg)

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