

Organised by



National Centre for
Infectious Diseases



Infectious
Diseases Labs
ID LABS

NCID MONTHLY RESEARCH MEETING:

*BRINGING PEOPLE TOGETHER,
BRIDGING SCIENCE AND MEDICINE*

16 Jul 2021 | Friday | 11.00 am – 12.00 pm

This meeting is co-hosted with A*STAR Infectious Diseases Labs

About the Meeting

Our research meetings are held every 3rd Friday of the month, with the aim to:

- 1) Inspire research ideas and participation
- 2) Provide guidance on research studies
- 3) Foster research collaborations

Who should attend

All who are interested in research are welcome to attend.

To register

This will be a Zoom meeting. Please register using the link or QR code below.

<http://tiny.cc/julresearchmeeting>



PROGRAMME

11:00 AM **“Immunological Determinants of the Severity of COVID-19”**
by **Dr Fong Siew Wai**
Research Scientist,
A*STAR Infectious Disease Labs

11:30 AM **“Alphavirus Cellular Hijacking and Implications for Potential Host Directed Therapy”**
by **Dr Guillaume Carissimo**
Research Scientist,
A*STAR Infectious Disease Labs

5 to 10 mins Q&A will follow after each talk

***CME/CPE points will be awarded**



Immunological Determinants of the Severity of COVID-19

by **Dr Fong Siew Wai**

Research Scientist, A*STAR Infectious Disease Labs

The outcome of COVID-19 varies broadly from asymptomatic infection to pneumonia, critical illness and death. Here I will discuss our understanding of the immunological determinants of COVID-19 disease presentation and severity.

Key Learning Points

1. Severe COVID-19 is marked by a hyper inflammatory innate immune response, characterised by the presence of a cytokine storm and a dysregulated myeloid cell compartment.
 2. Asymptomatic patients are more tolerant to SARS-CoV-2 and mount potent virus-specific adaptive immune responses.
 3. These insights into immune responses highlight key immune pathways that could serve as therapeutic targets to prevent disease progression in COVID-19.
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Alphavirus Cellular Hijacking and Implications for Potential Host Directed Therapy

by **Dr Guillaume Carissimo**

Research Scientist, A*STAR Infectious Disease Labs

I will discuss our findings and future prospect on a host factor important for alphavirus infection.

Key Learning Points

1. Some evolutionary conserved host factors are essential for viral replication across viral families.
2. Targeting these host factors can ameliorate pathology in murine models.
3. Understanding these interactions is essential to design broad spectrum antivirals.