Organised by

National Centre for Infectious Diseases

Agency for Science, Technology and Research
SINGAPORE

NCID MONTHLY RESEARCH MEETING:

BRINGING PEOPLE TOGETHER, BRIDGING SCIENCE AND MEDICINE

17 June 2022 | Friday | 11.00am – 12.00pm

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/jun22researchmeeting

*CME/CPE points will be awarded

Programme

11:00 AM **Mechanisms of Virulence and Antifungal Drug Resistance in *Candida***
Prof Wang Yue
Professor and Senior Principal Investigator
Infectious Diseases Labs (ID Labs), A*STAR

11:30 AM **Designing Host-directed Therapies against Mycobacterial Infections**
Dr Stefan Oehlers
Principal Investigator
Infectious Diseases Labs (ID Labs), A*STAR

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

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Mechanisms of Virulence and Antifungal Drug Resistance in *Candida*

by **Prof Wang Yue**
Professor and Senior Principal Investigator
Infectious Diseases Labs (ID Labs), A*STAR

Mechanistic understanding of virulence and antifungal drug resistance opens opportunities for developing new strategies for preventing and treating fungal diseases.

Three Learning Points

1. Beta-lactam antibiotics promote *Candida* albicans infection by causing gut bacteria to release hyphal-inducing peptidoglycan.
2. Development of transposon-based tools to conduct genome-wide profiling of genes involved in virulence and drug resistance.
3. Known mechanisms of resistance are just the tip of the iceberg.

Designing Host-directed Therapies against Mycobacterial Infections

by **Dr Stefan Oehlers**
Principal Investigator
Infectious Diseases Labs (ID Labs), A*STAR

Understanding the molecular basis of host pathways hijacked by tuberculosis and non-tuberculous mycobacterial infection allows the rational design of therapies to complement antibiotic therapy.

Three Learning Points

1. In vivo models are required to study complex granuloma formation processes.
2. Vascular-targeted drugs developed for cancer are ripe for repurposing to ID.
3. Modulation of immune cell function can be tailored to contain individual mycobacterial species pathotypes.