NCRIS Virtual Seminar Series

Neutrophil Homeostasis: A Daily Balancing Act.

Date: 18th April 2022 (Monday)
Time: 12noon-1pm

Venue: *via* **Zoom**
For details, please contact:
Nakeisha Tan – nakeisha.tan@duke-nus.edu.sg

Abstract:
Neutrophils are specialized cells of the early innate immune response that require constant replenishment from proliferative bone marrow (BM) precursors due to their short half-life. While it is well established that neutrophils are derived from the granulocyte-macrophage progenitor (GMP), the differentiation pathways from GMP to functional mature neutrophils are poorly defined. A long-standing question in the field of neutrophil research is whether a distinct subset of these cells truly exists, or different populations are merely a manifestation of the neutrophil maturation/polarization state. In comparison to other myeloid cell types such as monocytes, macrophages, and dendritic cells, lineage tracing experiments have been performed extensively to delineate distinct subsets of these cells; very little has been done for neutrophils. This talk will provide an overview of recent developments on this topic and discuss how in-depth analysis of physiological and pathological granulopoiesis by advanced –omics and multiparametric technologies can contribute to better understanding neutrophil subsets discover new functions.

Speaker:



Dr Ng Lai Guan
Principal Investigator
Singapore Immunology Network (A*STAR)

The primary research focus of Dr. Ng's laboratory is to study how immune cells exert their function in the context of intact organs. Using a combination of in vivo imaging models and multi-omics approaches his group aims to determine the development pathway of neutrophils and monocytes, as well as the sequence of cellular and molecular events involved in the regulation of leukocyte homeostasis. Dr Ng has been listed as one of the Highly Cited Researchers in 2020 and 2021 by Clarivate.

Host:
Prof. William Hwang
MBBS, M Med(Int Med), FRCP(London), FAMS
CEO and Senior Consultant
National Cancer Centre Singapore (NCCS)

No registration is required.
All are welcome.