ASHBi
DISTINGUISHED SEMINAR

Molecular requirements for the generation of functional B cell subsets in humans

Lecturer: **Prof Stuart Tangye**

Leader, Immunity & Inflammation Theme
Head, Immunology & Immunodeficiency Laboratory
Garvan Institute of Medical Research
Professor (Conjoint), St Vincent's Clinical School, Faculty of Medicine, UNSW Sydney

Date: **Wednesday, 28 July 2021**

Time: **4:00pm - 5:00pm**

Venue: **Zoom Online** Register via the right QR code

Eligibility: **Researchers and Students in Kyoto University**

Infection or vaccination generates effector immune cells. This ensures efficient clearance of invading pathogens, and establishes immunological memory, thereby providing long-term protection against recurrent infections. Yet we currently lack a complete understanding of immune regulation and memory, particularly in humans. Primary Immunodeficiencies (PIDs) are rare diseases (~1/10-50 000 births) caused by monogenic germline mutations leading to loss-of expression, loss-of function, or gain-of function of the encoded protein. PIDs are characterised by defects in immune cell development, or their differentiation into effector cells during immune responses. This renders patients highly susceptible not only to initial pathogens infection but also recurrent infection due to an inability to form immunological memory. Due to their immune dysregulation and immune compromised state, PID patients are also susceptible to developing allergy, autoimmunity, inflammation and/or cancer. Thus, PIDs are an unprecedented model to link defined monogenic defects to immune dysregulation in clinical settings. Indeed, although individually rare, the study of PIDs has provided profound advances in molecular medicine that extend well beyond the numbers of affected individuals and into the general population.

Organizer : Prof Hideki Ueno

[E-mail] ueno.hideki.8e@kyoto-u.ac.jp

Hosted by Institute for the Advanced Study of Human Biology (WPI-ASHBi)