Infectious Diseases Labs

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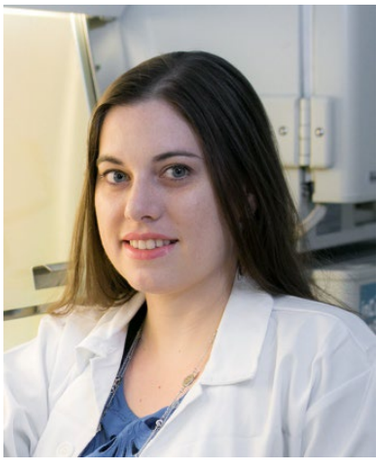

Dr Ashley St. John

Associate Professor,
Programme in Emerging Infectious Diseases,
Duke-NUS Medical School

Tuesday 9th Sep 2025
2:00 PM to 3:00 PM (SGT)

Venue: Codon A & B, Matrix Level 5

Maternal and fetal immune factors influencing Zika virus congenital syndrome

Zika virus (ZIKV) causes a mild febrile illness in adults, yet is of greatest concern because it can vertically transmit from mother to fetus. The fetuses of infected pregnant women are at risk for Zika congenital syndrome (ZCS), which can involve microcephaly, brain calcifications, absence of brain gyri, and other neurological defects. Using animal models of vertical transmission of ZIKV, we studied the functional contributions of multiple fetal immune cell types, including primitive macrophages, microglia and monocytes to ZIKV infection exacerbation versus control. Our results also point to a role of maternal antibodies in enhancing vertical transmission of infection. Collectively, we observe that both maternal and fetal immune factors can influence ZIKV infection outcomes and disease severity in fetuses.

Dr. Ashley St. John is an Associate Professor in the Programme in Emerging Infectious Diseases at Duke-NUS Medical School. She also holds appointments in the Department of Microbiology and Immunology, National University of Singapore, the Department of Pathology, Duke University and the SingHealth Duke-NUS Global Health Institute. Her research program focuses on viral immunology with emphasis on developing novel vaccination strategies, diagnostics, and therapeutics for infectious diseases.

Hosted by: Dr Stefan Oehlers

Seminar is open to all. No registration required.

Questions? Contact us at **seminars@idlabs.a-star.edu.sg**

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