Singapore Immunology Network
SIgN

SIgN SEMINAR

Hosted by Prof LAM Kong Peng

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Identification of HEV-like Endothelial Cells and CD4+ Resident Memory T Cells In Atopic Dermatitis

Chronic inflammatory skin diseases such as atopic dermatitis (AD) often recur at the same anatomical sites, suggesting localized immune memory. $CD4^+$ tissue-resident memory T (Trm) cells contribute to this process by persisting in the skin and initiating rapid immune responses upon antigen re-exposure. In both delayed-type hypersensitivity and AD-like models, $CD4^+$ Trm cells accumulated in the dermis after inflammation and clustered with $CD301b^+$ dermal dendritic cells. Their maintenance depended on the $CD301b^+$ DC–CXCL16–CXCR6 axis; $CXCR6^+$ Trm cells exhibited effector functions, and blocking CXCL16 suppressed their proliferation and recall responses.

In parallel, Prof Kabashima's lab identified high endothelial venule (HEV)-like vessels in inflamed skin of the MC903-induced murine AD model. These $PNAd^+$ vessels, structurally similar to lymph node HEVs but with elevated selectin expression, promoted lymphocyte infiltration via LTa1b2–LTbR signaling. Notably, they regressed after inflammation resolved but were rapidly reinduced upon re-inflammation, driven by epigenetic modifications linked to angiogenesis and PNAd synthesis.

26 January 2026 (Monday)
10 – 11 AM (Singapore Time)
SIgN Seminar Room
8A Biomedical Grove, Immunos, #04-06
Singapore 138648

Seminar is open for all to attend.

Registration is not required.