SIgN Immunology Seminar



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Development and Function of Tissue-Resident Lymphocytes

Host
Dr Florent Ginhoux
Singapore Immunology Network,

Date
Monday 14 November 2016

Time
11am – 12pm

Venue
SIgN Seminar Room
Immunos Building
Level 4
Biopolis

Tissue-resident memory T (Trm) cells provide local immune protection in peripheral tissues such as the skin and mucosa. We show that $CD8^+CD103^+$ Trm cells, independent of circulating memory T cells are sufficient for protection against infection and we describe the molecular mechanisms that underpin the formation of this distinct T cell population. We find that Trm cell maturation relies on regulatory cues that are distinct from those driving circulating memory T cells, and critically, that Trm cells acquire a unique transcriptional profile during differentiation. Further, we have identified a "universal" transcriptional signature of tissue-residency that extends beyond the T cell lineage, and is shared between adaptive and innate lymphocytes at both epithelial and non-epithelial sites.