Singapore Immunology Network
SIgN

SIgN SEMINAR

Hosted by Prof LAM Kong Peng

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Tumour Necrosis Factor in Host Defense and Barrier Integrity

TNF is a key driver of inflammation in host defense against pathogens and autoinflammatory diseases. TNF exerts its diverse biological effects via induction of inflammatory cytokines and cell death. In the context of host response against pathogen, TNF is mainly thought to limit replication of the pathogen via induction of host cell death. In contrast, TNF-induced cytokine expression is widely considered to be crucial in the pathogenesis of chronic inflammation such as that in inflammatory bowel disease. Using a number of newly developed mouse models, we discovered that the necroptosis inducer RIPK3 confers protection against poxvirus via cell death-dependent and independent mechanisms. Furthermore, we discover that TNF signaling in inflammatory bowel disease tunes the acquisition of distinct macrophage functions to impact the disease outcome. Thus, TNF and its downstream signal adaptors function in a cell- and context-dependent manner to tune the inflammatory response during infection and epithelial wound healing.

13 April 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.