

SIgN Immunology Seminar



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Role of myeloid cells in infectious diseases and inflammation seen through cell lineage ablation

We have recently generated a worldwide unique set of transgenic mouse strains that can be used to ablate specifically subsets of dendritic cells and/or macrophages *in vivo* (so called Diphtheria toxin receptor- DTR transgenic mice). We are currently exploiting these unique mouse strains to unravel the role of distinct myeloid subsets in mediating protective immunity in different infection models as well as in controlling inflammation.

In my talk I will present our recent results on the contribution of dendritic cells in regulating the intestinal mucosal barrier. To study the crosstalk between the innate immunity and colonic epithelia we have used two new DTR transgenic mouse strains (Clec9A- and Clec4a4-DTR mice) that enable us to ablate specifically CD11c^{high}CD103⁺CD11b⁻ and CD11c^{high}CD103⁺CD11b⁺ cells in the gut during colonic epithelial damage. Our data clearly strongly suggest that distinct dendritic cell subsets differentially control intestinal inflammation.

Host

Dr Alessandra
Mortellaro
Singapore
Immunology
Network, A*Star

Date

Tuesday
15 April 2014

Time

11am – 12pm

Venue

SIgN Seminar
Room
Immunos Building
Level 4
Biopolis