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Intestinal homeostasis maintained by subepithelial mesenchymal cell

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Immunoglobulin A (IgA) maintains a symbiotic equilibrium with intestinal microbes. IgA induction in the gut-associated lymphoid tissue (GALT) is dependent on microbial sampling and cellular interaction in the subepithelial dome (SED). Recently, we identified RANKL-expressing mesenchymal cells which directly interacted with the gut epithelium to control microfold (M) cell differentiation and regulated IgA production in the gut (1, 2). This SED-resident RANKL+ mesenchymal cell, termed M cell inducer (MCi) cell has a fundamental role in the maintenance of intestinal immune homeostasis. However, it is still unclear when and where MCi cells originate. In this symposium, we will introduce our trial to chase fates of MCi cells in vivo using unique mouse model.(3)

[References]