

JOINT EVENT ON
INTERNATIONAL CONFERENCE ON CANCER RESEARCH & DIAGNOSTICS
&
16TH ASIA PACIFIC BIOTECHNOLOGY CONGRESS

August 15-16, 2018 Singapore

STING controls mucosal Th17 immunity for host defenses against microbial DNA in gut

Song Liu, Qiuyuan Xia, Feng Sun and Wenxian Guan
Nanjing Drum Tower Hospital, China

Microbial DNA binds to host intracellular protein-STING encoded by *Tmem173*. In this study, we demonstrate that STING triggers adaptive immune responses that control Th17 differentiation. Microbial DNA recognition enables Classical Dendritic Cells (CDCs) that predominantly express CD103 to induce Th17 lymphocytes in an IL-6/IL-1 β -dependent manner in gut. STING expression in human lamina propria is associated with the severity of mucosal inflammation and clinical disease activity in patients with Crohn's disease. Mice deficient in *Tmem173* fail to mount Th17 responses or prevent immune evasion of enteroinvasive pathogens. In summary, STING in mucosal cDCs controls Th17 sub specification that is essential for host defenses against microbial infection in gut-associated immune system.

Biography

Song Liu has completed his MD and PhD from Nanjing University and Postdoctoral studies from Massachusetts General Hospital, Harvard Medical School. He is currently affiliated to the Nanjing Drum Tower Hospital. He has published 18 papers in scientific journals.

medical.lis@gmail.com

Notes: