

July 05-07, 2018  
Vienna, Austria

Zhou Xing, Insights Allergy Asthma Bronchitis 2018, Volume: 4  
DOI: 10.21767/2471-304X-C1-002

## DEVELOPING NEW TB VACCINE STRATEGIES TO TAKE AIM AT UNNATURAL MUCOSAL IMMUNITY

**Zhou Xing**

McMaster University, Canada

**M***ycobacterium tuberculosis* (Mtb) has evolved with robust mechanisms to counter host defence mechanisms, and the world is still facing TB epidemics despite decades of use of BCG vaccine and antibiotics. New TB vaccines are needed. In spite of major progress made in developing TB vaccine strategies with a dozen novel vaccines currently in the clinical pipeline, we still do not have an effective TB vaccine. This raises the question whether any major breakthroughs can be achieved without making a departure from the current strategy which creates a state of near-natural immunity, imitating the natural immunity developed after Mtb infection. Mounting new evidence suggests that an effective new strategy ought to induce a state of all-around unnatural immunity consisting of trained innate immunity, tissue resident memory T cells, and anti-Mtb surface antibodies in the respiratory mucosa. We will present the current state of knowledge and progress.



### Biography

Zhou Xing was trained in Medicine and Anatomic Pathology in China, and subsequently completed his PhD in Immunology at McMaster University, Canada. Since 2007, he has been Full Professor at McMaster Immunology Research Centre of McMaster University. He is an author of up to 175 peer-reviewed publications.

[xingz@mcmaster.ca](mailto:xingz@mcmaster.ca)