



## T-Regulatory Cells: An Overview with Special Emphasis on Tuberculosis

Om Parkash

*National JALMA Institute for Leprosy and Other Mycobacterial Diseases, Tajganj, Agra, India*

**Address for Correspondence:** Om Parkash; [om1234@gmail.com](mailto:om1234@gmail.com); [op\\_v3@yahoo.com](mailto:op_v3@yahoo.com)

**ABSTRACT:** Immune system in a host is like a double edged sword having protective role on the one hand and a tissue damaging effect on the other hand. To maintain the functioning of immune system in a balanced and beneficial way for the host, regulatory components of the immune system play a significant role. T regulatory cells (Tregs) are one, but very important, among such components. These cells belong to both conventional (CD4 and CD8) as well as non-conventional ( $\gamma\delta$  and NK) T lymphocytes. Since, CD4 type of Tregs have been characterised and studied extensively and are known to play a predominant role in immune-regulation, my presentation would focus, primarily, on CD4 Tregs. Tregs are well known for their role in dampening the immune responses to self antigens and, thereby, in controlling the occurrence of autoimmunity. Additionally, they are known to be involved in protecting the host tissues from immune-pathological effect during disease process. On the contrary, Tregs are considered to be involved in progression of malignancy and infectious diseases as well. Keeping these several functions into view, Tregs appears to be promising targets/elements for immunotherapy in several clinical conditions. Regarding tuberculosis, the research data relating to Tregs started emerging from 2006 onwards. Available information on this aspect indicates significant role of Tregs in progression and pathogenesis of TB. In my talk, I would present a general overview on Tregs with special emphasis on their implications in tuberculosis. © 2014 iGlobal Research and Publishing Foundation. All rights reserved.

---

**Conference Proceedings: International Conference on Life Sciences, Informatics, Food and Environment; August 29-30, 2014**

*Indo Global Journal of Pharmaceutical Sciences( ISSN 2249 1023 ; CODEN- IGJPAI; NLM ID: 101610675) indexed and abstracted in EMBASE(Elsevier), SCIRUS(Elsevier),CABI, CAB Abstracts, Chemical Abstract Services(CAS), American Chemical Society(ACS), Index Copernicus, EBSCO, DOAJ, Google Scholar and many more. For further details, visit <http://iglobaljournal.com>*