

❖ Name & Designation	: Mr. Nitin Purushottam Amdare, Ph.D. Student.
❖ Address	: Dept. of Biochemistry & JBTDRD, MGIMS, Wardha, Maharashtra-442102
❖ Name of the International Conference/Seminar/Symposium/Workshop	: 14 th Annual meeting of the federation clinical immunology societies-2014.
❖ Title of the abstract accepted	: Possible therapeutic potential of filarial proteins in mice model with induced type 1 diabetes.
❖ Date & Venue	: 25-28 th June 2014. Illinois, USA.
❖ Money sanctioned	: Rs 1,00,000/-
❖ Money reimbursed	: Rs 1,00,000/-

Participation Report

A. Organization of training/workshops/conference (No. of participating countries, No. of sessions etc):

14th Annual Meeting of the Federation of Clinical Immunology Societies (FOCIS 2014) on dated June, 25-28, 2014 held at Sheraton Chicago Hotel and Towers in Chicago, Illinois, USA organized by Federation of Clinical Immunology Societies was a grand success. This summit was mainly facilitated with the world's renowned scientists and eminent professors. This conference was attended by over 950 delegates from almost 30 countries from all over the world. In this summit, almost 29 parallel sessions from almost 40 speakers, 56 oral and 376 posters presentations and 4 keynote addresses followed by panel discussion were conducted during total four days of conference.

B. Academic highlights of conference, including major recommendation and following:

The principle aim of the Federation of Clinical Immunology Societies (FOCIS) is to improve human health through immunology by fostering interdisciplinary approaches to both understand and treat immune-based diseases. This conference had goal to foster academic

environment in which young-researchers readily meet distinguished front-runners in the field of basic and clinical immunology to discuss the frontline of immunological research, recent technology advances and its clinical application. Consistent with this aim, this meeting was featured with the presence of the over 950 delegates from almost all over the globe with renowned senior scientists and their key note addresses. Almost 56 oral abstract presentations and approximately 376 posters were presented throughout the conference by the MD, PhD, PDF students and the scientists.

Basically, this meeting was highlighted with:

- Basic immunology in medicine
- Biomarkers in Type 1 diabetes and other autoimmune disorders
- Personalized Treatment for Autoimmune Diseases and Transplantation
- Immunologic Memory and Its Relevance to Autoimmune Diseases
- Humanized Mice for Studying Immune Disorders
- The Ups and Downs of IL-2
- Challenges in Vaccine Development
- Checkpoint Control in Disease: -Deviating Immune Responses as Therapy
- Engineering T Cells for Cancer and HIV

i) New development presented at the conference

Some of the highlighted developments and researches discussed by the distinguished senior eminent scientists who have devoted time to speak at the meeting includes:

1. *Analysis of β Cell Death in Individuals at Risk for Type 1 Diabetes* - Kevan Herold, MD, Yale School of Medicine
Circulating copies of β cell-derived demethylated DNA in serum of mice can be detected by quantitative PCR. This method provides a non-invasive approach for detecting β cell death *in vivo* that may be used to track the progression of diabetes and guide its treatment
2. *Humanized Mice in Immunity, Development and Disease*- Richard Flavell, PhD, FRS, Yale University School of Medicine
Significant advances in understanding of the *in vivo* functions of human cells and tissues and the human immune system have resulted from the development of 'humanized' mouse strains. These mouse strains support the engraftment of a functional human immune system and permit detailed analyses of human immune biology, development and functions.
3. *Engineering T Cells for Cancer and HIV* - Carl June, MD, University of Pennsylvania.
Investigators used genetically modified patient's T cells to target and kill the cancer. When the T cells were reintroduced into the patients' bloodstreams, their cancer was often sent into complete remission. Researchers are applying a similar technique to that other hardest-to-treat disease, HIV/AIDS.
4. *T1D Perspective* - Ake Lernmark, MD, PhD, Lund University
5. *Rebalancing the Immune System into Type 1 Diabetes with Alefacept: Putting Theory into Practice* - Mark Rigby, MD, PhD, Emory University
6. *T Cell Memory Populations, Lineages, and Memory Stem Cells*- Luca Gattinoni, MD, National Cancer Institute
7. *Effects of IL-2 Therapy on Treg Stability and Other Immune Cell Types* - Jeff Bluestone, PhD, University of California, San Francisco
8. *Vaccines that are Difficult to Develop* - Jorge Kalil, MD, PhD, University of São Paulo

ii) New development resulted from the conference:

FOCIS is a platform for updating the knowledge in the area of basic and clinical immunology and development for young researchers. Outstanding scientists from industries, academics and research institutions shared their current research work in the area of drug discoveries, recent advances in the immune regulation, Treg cells signalling of autoimmune disorders like T1D and the engineering of T cells for cancer, HIV and other diseases. This summit updated me in the recent advances in the area of immunology and immunological disorders especially Type 1 diabetes. Keynote address on 1. "The ups and downs of IL-2", 2. "Role of activated Treg cells" 3. "Deviating immune responses as therapy" could help me to plan in depth experiments to prove the possible immunomodulatory and therapeutic potential of filarial proteins against type 1 diabetes in mouse model.

8. Participant's contribution to the conference:

It was my pleasure to find a very good opportunity to attend the 14th Annual Meeting of the Federation of Clinical Immunology Societies (FOCIS 2014, at Chicago, dated 24-28, June 2014) where the world's renowned speakers in the field of clinical immunology explored their work and touched the immunological themes like Immunoregulation, Immunogenetics, Host Defense, Immuno-diagnosis and Immunotherapy which falls in my area of research. In this meeting I have contributed by presenting my research paper in the form of poster entitled "***the possible therapeutic potential of filarial proteins in mouse model with induced type 1 diabetes*** (Abstract F-27). In this paper I have explored the immunomodulatory potential of filarial *Brugia malayi* native antigens like microfilariae excretory-secretory (Bm mf ES), soluble (Bm mf S), adult soluble antigens (Bm A S) and *Brugia malayi* recombinant antigen (rBmALT-2) against multiple low dose STZ induces Type 1 diabetes in mouse model. These filarial derived proteins could play pivotal role in the amelioration of disease condition in mice and could act as novel therapeutic candidates in the treatment of type 1 diabetes.