REPORT

Report on participation of the ICMR International Fellow (ICMR-IF) in Training/Research abroad.

1. Name and designation of ICMR- IF : Dr. Manikannan Mathayan

Scientist C,

2. Address : Center for Drug Discovery and Development,

Sathyabama Institute of Science and Technology,

Chennai, 600119. India

 Frontline area of research in which training/research was carried out

: Herpes simplex virus pathogenesis

- Name & address of Professor and host institute : Barry T Rouse, Distinguished Profess, Dept. of Microbiology, University of Tennessee, Knoxville, US
- 5. Duration of fellowship with exact date : 01-01- 2020 to 14-11-2020
- 6. Highlights of work conducted : Learnt techniques and understood concepts role of regulatory T cells eon HSV-1 infected mice corneal model system.
 - Technique/expertise acquired : 1. Development of stromal keratitis on mice
 2. Expansion and differentiation of regulatory T cells
 - Research results, including any papers,: No. Manuscript is under preparation May be published prepared/submitted for publication

iii) Proposed utilization of the experience in India:

To study inflammatory events occur in eye which is a major cause for vision loss. Herpes Simplex Virus causes chronic inflammatory reaction in the corneal stroma. This can be controlled by using regulatory T cells and studying Treg plasticity and its contribution to causing tissue damage in the eye. In addition a novel approach will be applied on neovasucrization development. By this study, mechanism and therapeutic approach of vision loss will be effectively identified.

Signature of ICMR-IF

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