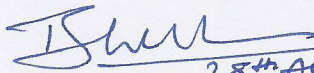


## REPORT

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

1. Name and designation of ICMR- IF : Dr. Bipin P. Kulkarni, Scientist C
2. Address : National Institute of Immunohaematology (ICMR), 13<sup>th</sup> floor, KEM hospital campus, Parel, Mumbai- 400012.
3. Frontline area of research in which training/research was carried out : Application of Next Generation DNA Sequencing Technology in understanding the molecular pathologies of bleeding/ platelet disorders.
4. Name & address of Professor and host institute : Barry S. Collier, M.D.  
David Rockefeller  
Professor of Medicine  
Head, Allen and Frances Adler Laboratory of Blood and Vascular Biology  
Physician-in-Chief,  
The Rockefeller University Hospital. 1230, York Avenue,  
New York- 10065.  
Vice President for Medical Affairs  
p: 212-327-7490  
f: 212-327-7493  
email: collerb@rockefeller.edu
5. Duration of fellowship : 180 days.
6. Highlights of work conducted :
  - i) Technique/expertise acquired :  
During the fellowship tenure, the following goals were achieved:
    - Leared the various NGS platforms and their capacities and limitations at the Rockefeller University and Mount Sinai Centre for Genomics.

- Leared Wet bench processes for genomic and exomic library preparations, Clustering of the libraries and sequencing runs on Illumina HiSeq 2500 sequencer, at the Mount Sinai Centre for Genomics and The New York Genome Centre.
  - Did Laboratory evaluation of a patient suffering from Glanzmann's Thrombasthenia, for phenotypic diagnosis of the disease at the Rockefeller University, followed by learning of Exomic library preparation, clustering and NGS sequencing run of the patient sample on Illumina HiSeq 2500, at The New York Genome Centre.
  - Leared the processes involved in Bioinformatic analysis of the sequencing data, with New York Genome Centre (NYGC)s Bioinformaticians.
  - Successfully completed a workshop on NGS data analysis at the New York Genome Centre from 24<sup>th</sup> to 28<sup>th</sup> April 2017.
  - Leared about the requirements for establishing a NGS laboratory from Dr. Milind Mahajan at the Mount Sinai Centre for Genomics
- ii) Research results, including any papers, prepared/ submitted for publication : The Laboratory evaluation and NGS sequencing results, along with additional functional analysis data is being compiled and a manuscript for possible publication is being jointly written.
- iii) Proposed utilization of the experience in India : This training has given me thorough knowledge and understanding of setting up a NGS lab, along with knowledge of experiment design, wet lab protocols, and processes involved in data analysis. This experience and knowledge can be utilized for setting up NGS facilities for inherited disorders in India.

  
 28<sup>th</sup> August 2017  
 Signature of ICMR-IF