

REPORT

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

1. Name and designation of ICMR- IF: Dr (Mrs) Rajlakshmi Devi
Associate Professor and Incharge (i/c), BCSS :
2. Address : Life Sciences Division,
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3. Frontline area of research in which
training/research was carried out : Protein chemistry.
Hands on training on screening of protein stability, which enables to evaluate the
binding ability of chemical compound to a protein of interest.
4. Name & address of Professor and host institute: Prof Akio Ebihara
Faculty of Applied Biological Sciences
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E mail: aebihara@gifu-u.ac.jp :
5. Duration of fellowship: 15 days
6. Highlights of work conducted :
 - i) Technique/expertise acquired: High through put screening of Ovine Angiotensinogen (oANG) using Differential Scanning Fluorimetry (DSF)
 - ii) Research results, including any papers,
prepared/submitted for publication: Nil

iii) Proposed utilization of the experience in India:

Differential scanning fluorimetry (DSF) is a straightforward way for researchers to gain in-depth insight into protein-ligand interactions within a very short period. DSF is being increasingly used as a robust method for initial screening of proteins for interacting small molecules, either for identifying physiological partners or for hit discovery. The highest advantage of this technique is it requires only a Real time PCR machine suitable for quantitative PCR which is generally available instrument in most institutions; an excellent range of protocols are already available, and there are strong precedents in the literature for multiple uses of the method.

As DSF is a very powerful technique to screen out different molecules within a very short period, and I have been working in medicinal plant research related to different diseases, so this training will help me in finding out the active molecules through protein ligand interaction from potent medicinal plants of NER, India. Specially, I will try to screen out some molecules from some indigenous medicinal plants of Northeast India on which I have already done some work.

Rdin
30/11/18

Signature of ICMR-IF

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