REPORT

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

1. Name and designation of ICMR- IF: **Dr. Niladri Ganguly**

2. Address: **Flat 202, Saptarshi Apartment, Nandan Kanan Road, Bhubaneswar 751024**

3. Frontline area of research in which training/research was carried out: **Role of micro RNAs in targeting endothelial-to-mesenchymal transition to prevent melanoma progression**

4. Name & address of Professor and host institute: **Prof. Subrata Chakrabarti, Professor and Chair of Pathology and Laboratory Medicine, Western University, Chief of Pathology and Laboratory Medicine, LHSC/SJHC 339 Windermere Rd. London, ON, Canada N6A 5A5**

5. Duration of fellowship with exact date: **15th October, 2019-14th October 2020**

6. Highlights of work conducted:

a. Induction of tumours in mice through injection of B16F10 melanoma cells. Tumours were surgically removed after 21 days and analyzed for endothelial and mesenchymal cell markers.

b. Identification of endothelial to mesenchymal transition (EndMT) markers like CD31, VE-Cadherin, SM22 and VEGF on endothelial cells derived from tumours.

c. Comparison of tumour growth in wild type and miR-200b transgenic mice. B16F10 melanoma cells were injected into wild type and miR-200b transgenic mice and tumours were analysed after 21 days. MiR-200b transgenic mice showed reduced tumour growth compared to wild type mice.

d. Increased expression of SM22 and down-regulation CD31 in endothelial cells derived from wild type mice as compared to miR-200b transgenic mice, which indicates a shift of the phenotype from endothelial to mesenchymal.

i) Technique/expertise acquired : **Immunofluorescence, animal handling, qPCR**

ii) Research results, including any papers, prepared/submitted for publication: **Submitted a review article**

iii) Proposed utilization of the experience in India: **I plan to use the transgenic mouse models in my research work related to cancer. I plan to create miR transgenic models for studying the effects of anti-cancer drugs.**

N Ganguly

Signature of ICMR-IF

ICMR Sanction No. **INDOiFRC/452 I (Y - U) t 201 g2UIHD**

REPORT OF HOST INSTITUTE

1. Name of Professor: **Prof. Subrata Chakrabarti**
(under whom training was carried out)

2. Name and address of host institute: **Department of Pathology & Laboratory Medicine, Dental Sciences Building, Western University, 339 Windermere Rd. London, ON, Canada N6A 5A5**

3. Duration of fellowship: **15th October, 2019 - 14th October, 2020**

4. Brief highlights of the achievements:

a. Studies tumour spread in a transgenic mouse model expressing miR-200b by injecting mouse melanoma cells.
b. Conceptualised and prepared a review article which is under revision in a peer reviewed journal.
c. Cultured and maintained five different cell lines.

5. Your assessment of the ICMR-IF:

Dr. Ganguly performed very well during his fellowship period. He carried out multiple experiments, authored a review article and interacted very well with other lab members. It is further to be recognized that, although access to the laboratory was restricted for a significant period of time due to COVD-19, he managed to carry out the experiments.

6. Any other comments: **None**

Signature Subrata Chakrabarti.

Name, Designation and Host Institute address:

Prof. Subrata Chakrabarti,
Professor and Chair of Pathology and Laboratory Medicine, Western University,
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