

REPORT

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

1. Name and designation of ICMR- IF: Dr Samapika Routray
Associate Professor
2. Address : Department of Dentistry,
All India Institute of Medical Sciences, Bhubaneswar,
Odisha -751019
3. Frontline area of research in which training/research was carried out:
Ultrashort ctDNA (uscDNA) for the development of novel biomarkers and early detection methodologies within the realm of liquid biopsy
4. Name & address of Professor and host institute : Professor David T.W. Wong
Director for UCLA Center for Oral/Head & Neck Oncology Research (COOR)
UCLA School of Dentistry
10833 Le Conte Ave.
Los Angeles, CA 90095-1668
dwong@dentistry.ucla.edu
5. Duration of fellowship with exact date : 9-01-23 till 8-12-23(11 months)
6. Highlights of work conducted :
 - i) Technique/expertise acquired :
 1. Processing, storage and transportation of salivary analytes, including gDNA, cfDNA, RNA, and protein, at ambient temperatures
 2. Use of ultrashort ctDNA (uscDNA) for the development of novel biomarkers and early detection methodologies within the realm of liquid biopsy.
 3. Novel technologies such as EFIRM (Electric Field Induced Release and Measurement), a method crucial for the detection of uscDNA, a new frontier in liquid biopsy, in both plasma and saliva samples.
 - ii) Research results, including any papers, prepared/submitted for publication :
 1. Provisional Patent applied for an innovative iSCPSS (integrated saliva collection, processing, stability, and storage) device equipped with a groundbreaking preservative
 2. Manuscript in preparation
 - iii) Proposed utilization of the experience in India: I intend to bring back the learning experience and establish Liquid Biopsy at my Institute and at National level as a new frontier.


Signature of ICMR-IF

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