

REPORT

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

1. Name and designation of ICMR- IF: Deeksha Arya, Associate Professor, Prosthodontics Department, Dental Faculty, KG Medical University UP, Lucknow, U.P., India

2. Address: A-401, Indraprastha Estate, Near IT College, Faizabad Road, Lucknow, U.P., India. Pin: 226007

3. Frontline area of research in which training/research was carried out:
3D computer aided orthognathic surgical planning – 3D computer aided reconstructive imaging, stereolithography, Rapid prototyping technology (RPT) & Computer aided designing (CAD) in maxillofacial prosthetics

4. Name & address of Professor and host institute: Peter Evans,
Maxillofacial Laboratory services Manager,
Maxillofacial Unit,
Morrison Hospital,
Swansea,UK

5. Duration of fellowship: 3 months (completed in 1 month)

6. Highlights of work conducted :

i) Technique/expertise acquired :

I gained an insight into the workings of a fully functional specialized maxillofacial prosthetics centre, which uses 3D computer aided orthognathic surgical planning, 3D CT reconstruction, 3D imaging, 3D printers and scanners and craniofacial implants to maximize their productivity and result. I was taught digital planning of osteotomies , printing of osteotomy wafers ,design and fabrication of various maxillofacial prosthesis. Use of softwares such as Dolphin, Proplan, MIMICS, SIMPLANT and Free Form (Haptic Arm), which are essential to the above areas, was also demonstrated. The centre I visited was one of the busiest maxillofacial centres in UK, with a new patient requiring prosthetic help, almost every day. Invaluable exposure and knowledge was acquired.

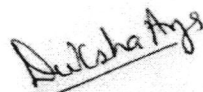
ii) Research results, including any papers, prepared/submitted for publication
:The host institute is interested in sharing their expertise and information with my parent institute. We are in discussion regarding research

proposals, organizing workshops and field visits to expand the knowledge & activity base of my institution in the concerned areas.

iii)

Proposed utilization of the experience in India:

We are running a maxillofacial unit at our institute, specializing in using state of the art technology to restore missing craniofacial structures. We are also working on establishing craniofacial rehabilitation centre. This will include the pre planning of orthognathic surgical work by use of 3D planning software (PROPLAN, Dolphin and MIMICS) and 3D printers. Collaboration is on with CARTIS (Centre for using Reconstructive Technology in Reconstruction- Wales, UK) and PDR (Product Design, Development and Research- UK) in the above areas.



Signature of ICMR-IF

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