

Report

Report on participation of the ICMR International Fellow on Training abroad

- 1) Name & Designation : Lt Col Gopi Renganathan, Plastic and Reconstructive Surgeon
- 2) Address : Department of Reconstructive Surgery
The Army Hospital (research & Referral)
New Delhi-110010
- 3) Frontline Area of Research & Training: Hand Transplantation and Hand Surgery
- 4) Name & Address of Professor & Institute:
Dr Vijay S. Gorantla, MD, PhD, MMM / UPMC , Pittsburgh
Associate Professor of Surgery | Plastic and Reconstructive Surgery
Administrative Medical Director | Pittsburgh Reconstructive Transplant Program
Deputy Director | Clinical Initiatives and Research Innovation | McGowan
Institute for Regenerative Medicine & Center for Military Medicine
Director | Veterans Affairs Pittsburgh Reconstructive Transplantation Program
Suite 670 | Scaife Hall | 3550 Terrace Street | Pittsburgh | PA 15213
- 5) Duration of Fellowship: 12 weeks
- 6) Highlights of Work Conducted: (Details as per Appendix)
 - a) Technique/Expertise acquired: The patient selection, planning, and procedural techniques of hand transplantations and advanced hand surgery and handling of modern instrumentation were learnt. Essential notes of the training period have been taken.
 - b) Research results: The training was a comprehensive module consisting of firstly the introduction of the facility with rotation amongst the faculties, followed by meetings with the different departments involved in transplant namely the coordinators, donor procurement teams, surgeons, postop immunologists and finally the rehabilitation team. The last part of the phase was meeting the transplant recipients. The result of such a complete module is to replicate a successful transplant team, a protocol and a management system for the needy in our country.
 - c) Proposed utilization of the experience: The training period was very educative and will assist us in starting this pioneering technique in our country.

Date

Signature
Name & Address of ICMR-IF

Appendix

ICMR-IF for Lt Col Gopi Renganathan, at University of Pittsburgh Medical Center(UPMC), Pittsburgh, USA.

The fellowship was undertaken over a period of 12 weeks at the UPMC to learn the nuances of Hand surgery and the pioneering technique of Hand Transplant with its possible implementation in India.

Hand Transplant is a milestone in transplant procedures which enables transplant of a hand from one human to another. The "donor" hand usually comes from a brain-dead donor and is transplanted to a recipient who has lost one or both hands/arms.

Around 100 transplants have occurred around the world, mostly in the American hand centers. But this procedure is gaining in repute and has been performed in many countries in recent times.

This above procedure is result of extensive basic science research and feasibility studies for many years prior to first clinical procedure. There is also considerable transparency and institutional review board procedures involved in the screening and selection of prospective patients.

The objective of this fellowship was to study such research, procedure protocols, effective surgical modules and rehabilitation schedule of hand transplantation in a reputed hand centre such as UPMC Presbyterian hospital.

In the UPMC hospitals, I was put through a comprehensive programme of research, operating room schedule and rehabilitation module training to learn the advanced surgical techniques of Hand surgery and reconstructive transplantation. The Reconstructive transplantation is a newer programme and it involves animal research, strict legal guidelines, meticulous documentation & integration of multiple sub specialties. I had first hand access to the above and also was able study the post transplant problems of rejections and how to manage them. It was also inspirational to meet the patients with functional transplanted hand and talk to their problems and gains.

It was encouraging to learn that similar specialties and skill for the procedure are existing within our country. We only need to plan, integrate and motivate a team consisting of a reconstructive (hand surgeon), transplant anesthesiologist, immunologist and hand rehabilitation specialist to provide a successful programme. This would involve seeking transplant centre recognition and interaction with transplant related committees, which is definitely possible at bigger Government or Armed forces centers of transplantation.

With the ever widening acceptance of hand transplantation as an established treatment modality and the large target patient population of our country ,this procedure will be beneficial to many upper limb amputees particularly those injured in war. In the future, with increased institutional support for research and development by the ICMR, the procedure of hand transplant supported with safer immunosuppressant will become an optimal option for amputees of the Indian sub-population.

It is my sincere desire to set up such functional reconstructive transplantation programmes and leading research centers, with the support of the ICMR and the Ministry of health, in the Govt and Armed forces Hospitals in this country, to effectively rehabilitate the upper limb amputees of this country.