

## REPORT

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

1. Name and designation of ICMR- IF : Dr. Beena Joshi
2. Address : Dept. of Operational Research,  
NIRRH, ICMR, Mumbai
3. Frontline area of research in which training/research was carried out : PCOS
4. Name & address of Professor and host institute :Dr. Anuja Dokras  
Director, Penn PCOS Center,  
University of Pennsylvania,  
Philadelphia
5. Duration of fellowship : 2 weeks
6. Highlights of work conducted :  
(ii) Research results, including any papers, prepared/  
submitted for publication (iii) Proposed utilization of the experience in India

### **Accomplishments:**

The fellowship was for a duration of two weeks at the Penn PCOS Center which is an established dedicated center headed and supervised by Dr. Anuja Dokras a globally known expert in the field of PCOS who is currently the President Elect of the AEPCOS Society 2015-16. This center has been working on various aspects of PCOS and has a transdisciplinary PCOS research program. The center offers comprehensive gynecological, reproductive, dermatological, metabolic, nutritional and psychological care to women with PCOS. The group at the center has numerous publications in the field of PCOS in reputed journals. The objectives of the visit were:

- (i) To observe the activities of the PCOS Center at the University
- (ii) To interact with the team/experts and exchange experiences of working in the area of PCOS
- (iii) To get acquainted with the multidimensional PCOS management protocols and treatment modalities
- (iv) To assess strategies adopted for long term follow-up and retention in care
- (v) To learn about the ongoing research activities of the center
- (vi) Explore collaborations for research in PCOS.

I attended PCOS clinic shadowing with Dr. Dokras both in the OPD and for IVF procedures at Penn PCOS clicic. The clinic had 13 speciality doctors assisted by nurses and Medical attendants. There were 5 resident doctors posted in the department. The patients came in by appointment. All documentation was computerized and paperless. Patients came from different backgrounds ie. White Americans, Black Americans, Chinese and Arab country patients with translators and also a couple of them from India. Patients came in by word of mouth or through the community programs that they host to generate awareness . Patients walked in for diagnosis and management of PCOS with a continuum of care approach from adolescent age to menopause. I got to see PCOS cases among young girls in adolescent age concerned about menstrual problems, severe acne/hirsuitism or mood disorders to middle

aged women eager to conceive. Most were eligible for IVF. There were some perimenopausal women too who were at risk of metabolic syndrome. Overall the obese population was a common sight at the clinic with an average BMI around 27. Almost all patients were well informed and read about their disease and the information given was much more scientific, explaining the various hormones, their levels and description of sonography reports. Hirsutism grading was also done by the patients themselves using informative pictures. Management was holistic and patient centric. All protocols and IEC material were shared with me. I attended nutrition counseling and USG sessions performed on PCOS patients. It was interesting to see the IVF retrieval procedure facility. Each couple was first assessed by the medical attendant followed by the doctor and then nurse would follow-up the case. Couples came for IVF mainly because they were diagnosed with genetic high risk such as Sickle Cell, Thalesemia, Osteogenig Imperfecta, Maple disease of the urine etc.

Attended their journal club and made a presentation of our work before a group of researchers, faculty and resident doctors. Hypothesis of evolution of PCOS over last thousands of years was also discussed. It was very well appreciated. I learnt about the health system functioning in the country. I learnt about research studies done at the PCOS Center of University of Pennsylvania. The following were the recently completed studies.

1. Study comparing the prevalence of eating disorders in women with PCOS and control women
2. Systematic review and meta-analysis of the prevalence of depression and anxiety in women with PCOS compared to controls
3. Systematic review and meta-analysis of the prevalence of eating disorders in women with PCOS compared to controls
4. Pilot randomized control trial comparing cognitive behavioral therapy plus lifestyle modification to lifestyle modification alone in overweight/obese women with PCOS and elevated depression scores – 8 weeks of CBT/lifestyle, continued for another 8 weeks of just lifestyle.
5. Physician surveys of gynecologists and reproductive endocrinologists about PCOS diagnosis and associated symptoms

#### Proposed utilization of the experience in India:

- The management protocols and IEC material used at PCOS clinic U Penn will be adapted to the PCOS clinic at NIRRH.
- A research study on assessment of mood and eating disorders among PCOS cases was discussed at length with their research team . Tools that could be used in the study were shared by the group. The proposal is being formulated and will be presented in the upcoming SAC of NIRRH.
- Development of training modules and capacity building of health providers on PCOS were few issues identified for further collaborative work and grant writing. Mentor gave an opportunity to be part of the AEPCOS Task Force Group working on Epidemiological Studies in PCOS representing India.