## REPORT

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

1. Name and designation of ICMR- IF

: Dr. Soumya Sundaram Short Term ICMR-DHR International Fellowship for Senior Bio-medical Scientists 2019-20.

2. Address

: Associate Professor (Pediatric neurology)
Department of Neurology
Sree Chitra Tirunal Institute for Medical Sciences
and Technology Trivandrum
Kerala
PIN 695011

3. Frontline area of research in which training/research was carried out

: Autism spectrum disorder

4. Name & address of Professor and host institute

: Professor Valsamma Eapen MBBS, PhD, FRCPsych, FRANZCP

Chair, Infant Child and Adolescent Psychiatry,
University of New South Wales
Head, Academic Unit of Child Psychiatry,
South West Sydney (AUCS)
Stream Director, Early Life Determinants of Health,
Sydney Partnership for Health, Education,
Research and Enterprise (SPHERE)
Director, Program 1,
Co-operative Research Centre for Autism (CRC)

30 Botany Street, Randwick, University of New South Wales ICAMHS, L1 MHC, Liverpool Hospital, Elizabeth Street, NSW 2170 Sydney, Australia Fax: (+61) -2-96012773 Email: v.eapen@unsw.edu.au 5. Duration of fellowship with exact date : 3 months 24/02/2020 to 22/05/2020

## 6. Highlights of work conducted

- i) Technique/expertise acquired
  - Detailed assessment of children with autism spectrum disorders using standardised tools such as Autism diagnostic observation schedule (ADOS2), Mullen Scales of Early Learning, Childhood autism rating scale and Wechsler Intelligence Scale for Children (WISC)
  - Approach to management of children with autism spectrum disorder by Early Start Denver Model, Parent Works (parent training modules) and Parent-Child Interaction Therapy (PCIT)
  - Protocol-based implementation of screening of children with autism spectrum disorder and other developmental disorders (Watch me grow program), confirmation of diagnosis using various tools, report generation and triaging patients to appropriate centres for rehabilitation purpose.
- ii) Research results, including any papers, prepared/submitted for publication
  - A research proposal titled "Screening tool for detection of autism spectrum disorder and other developmental disorder in immunisation clinics" is planned as a multicentric project for submitting to Department of BioTechnology (DBT) under the supervision of Prof Valsa Eapen. This is a 'concept proposal' for submission under the call for research in the area of 'developmental disorder and diseases of infancy and early childhood (domain- autism spectrum disorder)'. This proposal comes in the subdomain of a 'simplified and context specific tools that can be used by frontline health workers and non-specialist physicians and nurses for early identification of autism spectrum disorder'
  - Authored a chapter on "What goes wrong with Sleep in Autism" in a book titled 'How to help a child with Autism sleep well- A parent's guide to manage sleep problems in Autism.'

- Implementation of complete assessment of children with autism spectrum disorder which includes Autism diagnostic observation schedule (ADOS2) and Mullen Scales of Early Learning
- There are various programs implemented in Australia for management of children with autism spectrum disorder. Among them, parent training programs (Parent works) is probably the best option for the rehabilitation of children with autism spectrum disorder in India. Considering the limitations in the infrastructure and manpower in India, training of parents through proper teaching modules and video sessions about problem behaviours in child and their management is a feasible option. The development of parent training modules and parent interaction programs is planned for implementing at our Institute with guidance from the host institute.
- Expanding the existing facility for comprehensive rehabilitation of children with autism spectrum disorder at our Institute by including early intervention program for autism. Since this program requires at least 24 hours per week of intensive rehabilitation for a single child, adequate manpower is required to implement the program which will be initiated after obtaining sufficient funding.
- Submission of a research proposal to DBT (multicentric study) on screening children for autism and other developmental disorders at 18 months of age during their routine visit to immunisation clinics. Early detection of these children provides an opportunity to institute early intervention therapy thereby improving the outcome. Screening will be done through a web-based questionnaire to be filled by parents or assisted by health workers. This questionnaire will be prepared in their regional language.

Signature of ICMR-IF

Name: Dr Soumya Sundaram

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