MADRAS DIABETES RESEARCH FOUNDATION

ICMR CENTRE FOR ADVANCED RESEARCH ON DIABETES

Recognized as a Scientific and Industrial Research Organization (SIRO)
by the Department of Scientific and Industrial Research, Ministry of Science & Technology, Govt. of India.
Affiliated to the University of Madras & Deakin University, Melborne, Australia & University of Warwick, UK for Ph.D. Programs

19th August, 2024

TO WHOMSOEVER IT MAY CONCERN

Dr. Radha Venkatesan joined Madras Diabetes Research Foundation (MDRF) in 1999, which was founded by me, Dr. V. Mohan and my late wife Dr. M. Rema. She is now the Executive Secretary, Senior Scientist and Head of Molecular Genetics Department, MDRF. She started with the vision to translate the understanding of fundamentals of genetics to diabetes clinics and the society at large. Towards this aim, she worked on both polygenic diabetes and monogenic diabetes including hypoglycaemia due to hyperinsulinism. Under her guidance, the lab was involved in finding the genes that cause susceptibility to type 2 diabetes. She was one of the key scientists in the Genome Asia 100k pilot project that addressed the lack of reference genome datasets in Asian populations enabling scientists to work on these results. Currently her lab is working towards constructing polygenic risk scores in order to deliver on precision medicine goals for diabetes.

Her major and unique contribution is mainly in the field of monogenic diabetes genetics where she has not only done fundamental work but also applied it to clinical medicine. She and her team has been instrumental in collecting a huge cohort of suspected monogenic patients' samples from all over the country and has built a cohort of more than 2200 patients with monogenic diabetes, such as Maturity Onset Diabetes of the Young (MODY) , Neonatal Diabetes Mellitus (NDM) and the contrasting condition of Congenital Hyperinsulinism(CHI) in India. Further, she has performed genetic investigation, identified a number of novel and known mutations in them. Moving beyond this, she has established the functional role of many of these mutations and the clinical cause and outcome of these mutations through experiments. This has resulted in a massive clinical translational impact, helping in shifting patients on insulin injections to oral Sulphonylurea drugs. More than 50% of such patients have had a bench to bedside translation. Furthermore, she has followed up their glycaemic trajectories for more than 5 years and established precision medicine based on genetics. This has been the only lab in the country where basic science understanding of diabetes has been translated to clinical practice. The uniqueness of her work and the outcome has a great impact on tens of thousands of patients afflicted with this condition in India and therefore, I am happy to endorse this work and nominate Dr. Radha Venkatesan for the Sun Pharma Science Foundation Research Fellowship award.

Dr. V. MOHAN, M.D., Ph.D., D.Sc.,
Chairman
Madras Diabetes Research Foundation
No. 4, Conran Smith Road,
Gopalapuram, Chennai-600 086.

Dr. V. Mohan, M.D., Ph.D., D.Sc. FAMS, FRCP, FNASc, FASc, FNA, FACE, FTWAS, MACP, FRSE
Chairman