

Speaker's Biosketch – Dr. Nagaraj Manickam

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Nagaraj Manickam (Madras Diabetes Research Foundation (MDRF), India)

Dr. Nagaraj Manickam (Born, 1974) is a Head of the department of Vascular Biology at Madras Diabetes Research Foundation, Chennai, India. He completed his PhD degree in 2003 from the University of Madras and has around twenty years of post-PhD research experience, including Post-doctoral training (2004-2010) at University of Texas Health Science Center, San Antonio, Texas, USA. He has been handling many projects involving cell signaling, cell biology and molecular biology techniques to dissect the molecular mechanism of vascular complications of diabetes such as CVD and DKD. He has good experience in clinical, invitro and animal studies. His lab has found that Asymmetric dimethylarginine (ADMA) can be used as an effective biomarker for the detection of diabetic kidney disease at an early stage. Further his lab has dissected out the molecular mechanism by which ADMA causes renal cell injury. His department is also working on the cardiovascular disease, one of main complications of metabolic syndrome including diabetes and dyslipidemia. His group has identified a novel protein called Sestrin2, which was decreased under diabetes and dyslipidemic conditions and also, his group found that the decrease in Sestrin2 leads to altered expression of AMPK and mTOR molecules resulting in imbalance between pro and anti-inflammation leading to the progression of atherosclerosis and cardiovascular diseases.