Role of microRNAs in diabetic heart

Diabetes is one of the most common chronic disorders in the world population. Numerous and complex factors including various genetic and physiological changes can lead to develop two types of diabetes: Type-1 diabetes (T1D) is due to self-destruction of the insulin producing β-cells/Type-2 diabetes (T2D) is caused by defects in insulin production in the pancreas. Both types of diabetes develop serious secondary complications, such as microvascular complications, oxidative stress, foot complications related to peripheral, neuropathy, peripheral vascular disease and cardiovascular disease. However, the major molecular mechanisms of pathogenesis of diabetic with cardiac complications remain obscure. With the recent discovery of MicroRNAs (miRNAs), these small non-coding RNAs have been implicated as new players in the pathogenesis of diabetes and diabetes-associated cardiac complications. Significantly, the gene profiling techniques has been widely used as early diagnostic and prognostic biomarker especially in the area of diabetic cardiac complication research.

Biography
Subbiah Ramasamy has completed his PhD in Molecular Cardiology from Madurai Kamaraj University and Post-doctoral research at University of Temple, Philadelphia and University of Alabama at Birmingham, USA. He has joined Madurai Kamaraj University as an Assistant Professor in 2010. He has published more than 20 papers in reputed journals.

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