

Genetic Epidemiology of Adult Onset Type 2 Diabetes in Asian Indian Population: Past, Present and Future

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ABSTRACT Incidence and prevalence of Type 2 Diabetes mellitus (T2DM) continue to rise in Indian populations. Despite known roles for obesity, sedentary lifestyles and diet, genetic predisposition accounts for significant risk. The identification of susceptibility loci for both monogenic and typical (oligogenic) diabetes have introduced novel genes, pathways and mechanisms of diabetes pathogenesis. Very little data is available on T2DM susceptibility loci in Asian Indian population. An extensive consortium based approach is required to identify the susceptibility locus and genes responsible for common form of familial diabetes in India. By defining the genetic susceptibility loci, such studies will eventually facilitate a direct, systematic exploration of the interactions of environmental factors, obesity, insulin resistance, and genetic predisposition in the pathogenesis of T2DM and prediabetic traits and also will open new pathways of exploration and therapy. This article is a systematic review of genetic epidemiology of adult onset Type 2 Diabetes in Asian Indian Population and related research initiatives in India and abroad.

“Arise, Awake, and stop not till the goal is achieved”

-Swami Vivekananda