

Genetic Science Spotlight

Shanghai Jiao Tong University: Clinical Utility of Type 2 Diabetes Genetics



Over the past two decades, China has witness a rapidly increasing prevalence of diabetes, from 2.6% in 2000 to 9.7% in 2010. With the advent of GWAS, exploration of the genetic basis for type 2 diabetes (T2D) susceptibility has made significant breakthroughs. To date, approximately 70 susceptibility genes have been identified as being associated with T2D. Among which most may confer T2D risk through impaired cell function, e.g. *KCNJ11*, *HNF1B*, *IGF2BP2*, whereas other candidate genes, for instance *PPAR γ* , *GRB14*, *GRK5*, have an impact on insulin action. Notably, genome wide association studies (GWAS) on genes associated with obesity risks like *FTO* and *MC4R*, did not show significant correlation between T2D susceptibility and raised BMI. With the T2D related genotypic information, the risk of developing T2D among nondiabetic individuals may be estimated and thus facilitating early interventions to prevent or delay the onset of the disease. Recent studies have suggested that the potential deleterious effect of several T2D loci may be abolished or at least attenuated by higher physical activity levels or healthy lifestyle, whereas they may be augmented by low physical activity and unhealthy dietary patterns.

<https://www.hindawi.com/journals/bmri/2014/926713/>

You are welcome to contact us for more information!



©Copyright 2012-2017 Le GENE Limited | All Rights Reserved