Title: Bioinformatics evaluation of IL-17 pathway in type 1 (T1D) diabetes disease

Name:mandana kazemi

Department of, Shahrekord branch, Islamic Azad University, Shahrekord, Iran.

Type 1 diabetes usually begins in childhood or adolescence but may start at any age and comprises only 5 to 10 percent of all diabetes cases, however its prevalence continues to increase worldwide.Type 1 diabetes (T1D) is defined as an autoimmune disorder caused by T-cell mediated degradation of the insulin-producing pancreas and begins with a combination of genetic and environmental factors.Many signaling pathways, including IL-17, are involved in autoimmune diseases. Interleukin-17 (IL-17) is a 32-kDa hemodymeric cytokine and is distributed everywhere but is apparently more abundant in the spleen and kidney.In addition to its invasion by HSV T lymphocytes, this cytokine secretes IL-6, IL-8, PGE2, MCP-1, G-CSF by fibroblast cells, keratinocytes, epithelial and endothelial cells.IL-17 has been shown to be involved in the pathogenesis of hypertension, atherosclerosis and lipid differentiation, and the role of IL-17 in glucose metabolism has been elucidated and six members of its family (IL-17A-F) have been identified.IL-17A is largely produced by activated memory T lymphocytes but stimulates innate immunity and host defense.IL-17A and IL-17F partially mobilize neutrophils through induction of CXC granulopoiesis and chemotaxin as well as enhancing local survival.Evidence suggests that IL-17 family members play an active role in cancer, inflammatory and autoimmune diseases.The aim of this study was to select genes involved in IL17 pathway based on expression profiles obtained from microbial studies from GEO database and evaluate their expression changes in order to introduce biomarkers for type I diabetes mellitus.

Biography: I am a postgraduate student of genetics at Shahrekord University

Presenting author details

Full name: mandana kazemi

Contact number:0989134098869

Twitter account:

Linked In account:mandanakazemi1374@gmail.com

Session name/ number: Track 9:Bioinformatics in Genomics

Category: oral