عناوين وملخصات مشاريع التخرج للاستاذ المساعد دكتوره زينب

**The role of some cytokines in liver fibrosis**

**Abstract**

The liver is the largest solid organ and the largest gland in human body. It carries out a range of essential tasks. The liver is the only visceral organ with the capacity to regenerate; it cans re-growth to its previous size and ability can achieved without any loss of function.

Fibrosis and its end stage, cirrhosis, is the final common pathway of chronic liver diseases irrespective of etiology. Liver fibrosis results from chronic damage to the liver in conjunction with the accumulation of extracellular matrix (ECM) proteins, due to chronic HCV infection, alcohol abuse, and non-alcoholic steatohepatitis (NASH). The natural history of liver fibrosis is influenced by both genetic and environmental factors.

Cytokines are a large group of proteins, peptides or glycoproteins that are secreted by specific cells of immune system. They are a category of signaling molecules that mediate and regulate immunity, inflammation and hematopoiesis.

One of the most important Th2 cytokines is IL13. A protein that in human is encoded by IL13 gene and is located on chromosome 5q31. IL13 signals to cells by binding to complex receptors system. Some receptors expressed in normal tissue, but over-expression in several abnormal conditions, like in cancer and liver fibrosis.

Disruption of IL13 gene or blockage of IL13 with inhibitors lead to markedly educed liver fibrosis after infection with *S. mansoni*, including that IL13 is a pro-fibrogenic cytokines during *S. mansoni* infection.

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