

**Cytokines Genotype variants on the pathogenesis of Systemic Lupus  
Erythematosus among Jordanian patients**

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**Al-Zaytoonah University of Jordan, 2023**

**Abstract**

Systemic lupus erythematosus (SLE) is a heterogenic autoimmune inflammatory disorder characterized by excessive autoantibody synthesis against a wide range of self-antigens. One complication of SLE is Lupus Nephritis (LN). The aim of our study was to investigate the genetic variants of TNF- $\alpha$ , IL-6, IFN- $\gamma$  and IL-10 cytokines using the molecular technique PCR-SSP. Our results showed that IL-10-1082 G allele and G/G genotype were significantly associated with Lupus Nephritis, while TNF- $\alpha$ , IL-6, IFN- $\gamma$  had no association with LN. In addition, IL-10 genotype CC/GCC and GCC haplotype were linked to Lupus Nephritis. In conclusion, these findings may serve as possible predictive markers for development of Lupus Nephritis in SLE patients risk screening. This would make it easier for people who may be at risk of getting Lupus Nephritis in SLE to take the necessary precautions to delay the disease and may aid in creating more effective treatment plans for Lupus Nephritis.

Keywords: Cytokine, Systemic Lupus Erythematosus, Lupus nephritis.