

# Innate immune cells' contribution to systemic lupus erythematosus

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Systemic lupus erythematosus (SLE) is a chronic autoimmune disease characterized by the presence of autoantibodies against nuclear antigens, immune complex deposition, and tissue damage in the kidneys, skin, heart and lung. Because of the pathogenic role of antinuclear antibodies and autoreactive T cells in SLE, extensive efforts have been made to demonstrate how B cells act as antibody-producing or as antigen-presenting cells that can prime autoreactive T cell activation. With the discovery of new innate immune cells and inflammatory mediators, innate immunity is emerging as a key player in disease pathologies. Recent work over the last decade has highlighted the importance of innate immune cells and molecules in promoting and potentiating SLE. In this review, we discuss recent evidence of the involvement of different innate immune cells and pathways in the pathogenesis of SLE. We also discuss new therapeutics targets directed against innate immune components as potential novel therapies in SLE. Copyright © 2019 Herrada, Escobedo, Iruretagoyena, Valenzuela, Burgos, Cuitino and Llanos.

Dendritic cells

Innate immunity

Innate lymphoid cell

Lupus (SLE)

Macrophage-cell

antinuclear antibody

cell nucleus antigen

cytokine

toll like receptor

antigen presenting cell

B lymphocyte

basophil

complement system

dendritic cell

human

immunocompetent cell

innate immunity

lymphoid cell

macrophage

mediator

neutrophil

Review

systemic lupus erythematosus

T lymphocyte

T lymphocyte activation