Key Points

- The contribution of innate immunity to systemic juvenile idiopathic arthritis (sJIA) is prominent, supporting the classification of sJIA as an autoinflammatory disorder
- Available data suggest that sJIA is a multigenic disease, and that sJIA with macrophage activation syndrome (MAS) could represent a genetically distinct disease subtype
- IL-1B is a critical proinflammatory cytokine in early sJIA, whereas arthritis in chronic persistent sJIA is possible driven by other mediators
- During active disease, mediators of both inflammtory and anti-inflammatory pathways are detected; among the latter are monocyte/macrophages with features of ‘alternative activation’
- It is possible that clincally inactive disease (with no medication) represents a state of compensated inflammation rather than the absence of immune activity