



Webinar CyTOF group France

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IL-12 and IL-23: paradoxical behavior in inflammation and cancer

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Zoom link :

<https://univ-amu-fr.zoom.us/j/81537671135?pwd=VzJkTUtFdWVTMm0weUZvaVE1NTE3dz09>

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Abstract

IL-12 and IL-23 are closely related cytokines and represent the most proinflammatory mediators of the IL-12 superfamily. Both cytokines are structurally similar and share both producing and sensing cell types. While IL-12 is a canonical TH type I inducing mediator, IL-23 is firmly linked with type III immunity. Both cytokines are considered central mediators of TH cell polarization and are linked with inflammation and even immunopathology. However, whilst IL-12 stimulates type 1 lymphocytes and can eliminate established tumors, the loss of IL-12 leads to drastically enhanced inflammation across various models of chronic inflammatory disease and autoimmunity. Likewise, IL-23, which plays a non-redundant function in the development of autoimmunity and type 3 immune responses, it also increases tumor growth. These at first glance paradoxically appearing properties form the focus of this presentation. I will discuss the discoveries around IL-12 and IL-23 from a historical perspective, taking into account the most recent findings on their immunoregulatory properties in the context of inflammation and cancer in particular and immunity in general.