



## IL-6 and leukemia-inhibitory factor are involved in the generation of tumor-associated macrophage: regulation by IFN- $\gamma$

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Titre IL-6 and leukemia-inhibitory factor are involved in the generation of tumor-associated macrophage: regulation by IFN- $\gamma$

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Résumé en anglais Tumor-associated macrophages (TAMs), the most abundant immunosuppressive myeloid cells in the tumor microenvironment, exhibit an IL-10<sup>high</sup>IL-12<sup>low</sup> profile called M2, opposite to the immunostimulatory M1. We reported that ovarian cancer ascites switched monocyte differentiation into TAM-like cells that exhibit most phenotypic and functional characteristics of TAMs, suggesting that soluble mediators are involved in the differentiation of monocytes into TAM-like cells. We observed that leukemia-inhibitory factor and IL-6, present at high concentrations in ovarian cancer ascites, skew monocyte differentiation into TAM-like cells by increasing macrophage colony-stimulating factor consumption. Moreover, we observed that IFN- $\gamma$  switches established TAMs into immunostimulatory M1 cells and skews monocyte differentiation from TAM-like cells to M1s. In addition to revealing a new tumor-escape mechanism associated with TAM generation via leukemia-inhibitory factor and IL-6, these findings offer novel therapeutic perspectives to subvert TAM-induced immunosuppression and to improve antitumor immunotherapy efficacy.

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### Liens

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