

## Allergy-immunology glossary

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*Towards a clear designation of some of the terms used in allergology and immunology.*

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| <p><b>Interleukin 5 (IL-5)</b></p> | <p>Interleukin-5 (IL5) is a Th2 homodimeric cytokine involved in the differentiation, maturation, migration, development, survival, trafficking and effector function of blood and local tissue eosinophils, in addition to basophils and mast cells. IL-5 and IL-5R drive allergic and inflammatory immune responses characterizing numerous diseases, such as asthma, atopic dermatitis, chronic obstructive pulmonary disease, eosinophilic gastrointestinal diseases, hyper-eosinophilic syndrome, Churg-Strauss syndrome and eosinophilic nasal polyposis.<sup>1</sup> IL-5 has been proposed as a potential molecular target in the treatment of these diseases. In studies of asthmatics, anti-IL-5 showed minimal efficacy in patients with moderate, controlled asthma. In patients with severe, refractory asthma associated with eosinophilia, however, clinical trials have demonstrated significant reductions in asthma exacerbations.<sup>2</sup></p> | <p>انترلوكين ٥<sup>٣</sup></p> |
| <p><b>Interleukin 6 (IL-6)</b></p> | <p>IL-6 is a pleotropic cytokine that, together with TNF-<math>\alpha</math> and IL-1<math>\beta</math>, has been traditionally considered as a biomarker of ongoing inflammation more than as a regulatory cytokine with potential to modulate the immune response.<sup>4</sup> Specifically, IL-6 has been shown to promote Th2 differentiation of CD4+ T cells while suppressing Th1 differentiation through independent pathways. IL-6 can also modulate the intensity of the immune response by inhibiting T regulatory (Treg) cell development. Some studies suggest that IL-6 synergizes with IL-1<math>\beta</math> to promote Th17 differentiation. Thus, IL-6 may be a key factor in determining the balance of CD4+ T cells in becoming Treg or inflammatory Th17 cells.<sup>5</sup></p>                                                                                                                                                                  | <p>انترلوكين ٦<sup>٣</sup></p> |

### REFERENCES:

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