

Brief Report: Inhibition of interleukin-6 function corrects Th17/Treg cell imbalance in patients with rheumatoid arthritis.

Maxime Samson, Sylvain Audia, Nona Janikashvili, Marion Ciudad, Malika Trad, Jennifer Fraszczak, Paul Ornetti, Jean-Francis Maillefert, Pierre Miossec, Bernard Bonnotte

► **To cite this version:**

Maxime Samson, Sylvain Audia, Nona Janikashvili, Marion Ciudad, Malika Trad, et al.. Brief Report: Inhibition of interleukin-6 function corrects Th17/Treg cell imbalance in patients with rheumatoid arthritis.: modulation of the Th17/Treg balance with anti-IL-6R. *Arthritis and Rheumatism*, Wiley, 2012, 64 (8), pp.2499-503. 10.1002/art.34477 . inserm-00691908

HAL Id: inserm-00691908

<https://www.hal.inserm.fr/inserm-00691908>

Submitted on 5 Apr 2013

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

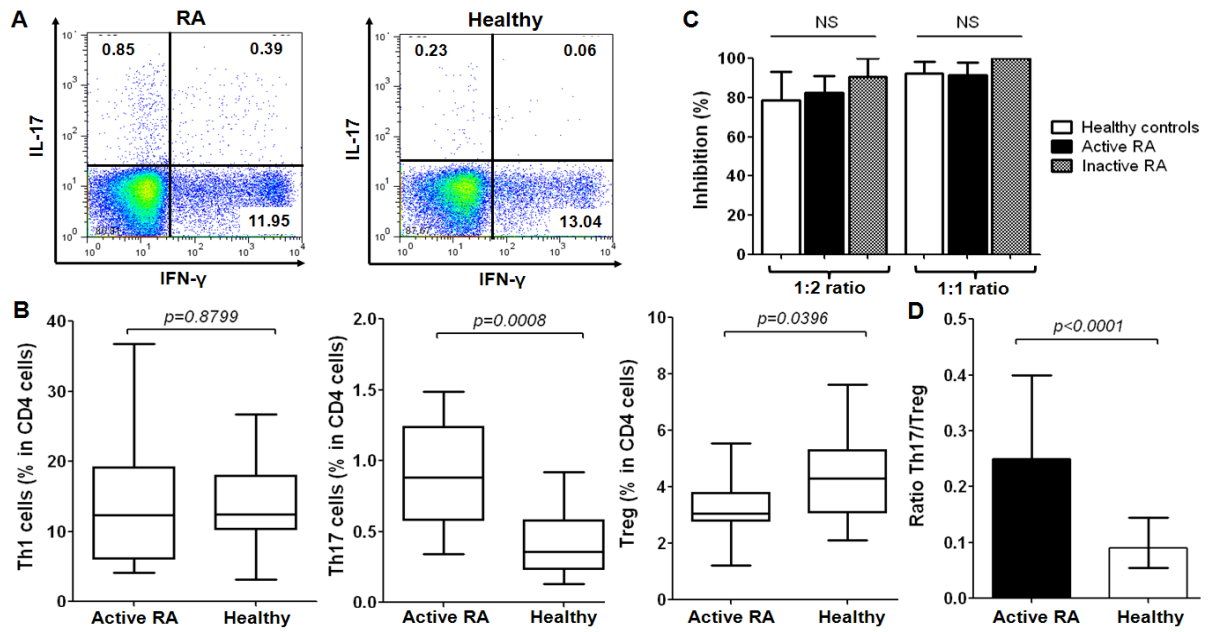


Figure 1: Circulating Th17 are increased in RA patients whereas Treg are decreased but functional. **A, B:** Flow cytometry analysis of Th17 (CD4⁺IL-17⁺), Th1 (CD4⁺IL-17⁻IFN- γ ⁺) and Treg (CD4⁺CD25^{high}Foxp3⁺) cells in RA patients (n=15) and healthy subjects (n=17). **C:** Functional analysis of Treg (CD4⁺CD25^{high}). The proliferation index was measured with the ModFit LT™ 3.0 software. The percentage of inhibition was calculated using the proliferation index of stimulated T effectors without Treg as reference. Percentages of inhibition were compared ratio to ratio. Active RA patients (n=6), TCZ treated RA (n=3) and healthy controls (n=6). **D:** Th17/Treg ratio. RA patients (n=15), healthy subjects (n=17). The Mann Whitney U test (Kruskall-Wallis test for 1C) was used for statistical analysis. NS: not statistically significant. Whiskers are as follow: the median (horizontal bar), the IQ range (box) and the extreme values (error bars).