Reviewer’s report

Title: TRAIL Death Receptor-4, Decoy Receptor-1 and Decoy Receptor-2 expression on CD8+ T cells correlate with the disease severity in patients with rheumatoid arthritis

Version: 2 Date: 18 May 2010

Reviewer: Maria Jose Martínez-Lorenzo

Reviewer’s report:

Please, find enclosed the comments to author about the manuscript entitled: “TRAIL Death Receptor-4, Decoy Receptor-1 and Decoy Receptor-2 expression on CD8+ T cells correlate with the disease severity in patients with rheumatoid arthritis”.

This is an interesting paper on the characterization of TRAIL/ TRAIL receptors on T cells in rheumatoid arthritis patients. Authors analyzed T cells expression in RA patients by flow cytometry comparing with control donors.

Minor Essential Revisions

1) Percentage of expression ranging to 0-2% should not be considered “high expression” because the variability of the samples percentage, even comparing to control donors (no expression). The authors should explain that in CD4 positive cells, the expression of TRAIL and their receptor is barely perceptible or similar. It is not relevant if the data show a “35 fold increase in DcR1 expression” if you compare with a control sample without expression.

The differences in the percentages should write in another way.

2) The authors indicated in the text: “Representative FACS data” should be change by “Representative FC data”. FACS meaning is Fluorescence Activated Cell Sorting. In this paper, only flow cytometry is done, not sorting.

Major Compulsory Revisions

1) The results shown in this paper indicated that TRAIL is not expressed in naïve T lymphocytes from healthy donors. Others group demonstrated that TRAIL are expressed in T lymphocytes. This point should be further discussed.

2) Relating to DR4 and DR5 expression, Hasegawa (2004) did not observed DR4 and DR5 expression in naïve T lymphocytes from peripheral blood. By contrast, authors indicated DR5 expression. They should discuss this point.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable
**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

'I declare that I have no competing interests'