Reviewer’s report

Title: The Immunosuppressant FTY720 (Fingolimod) enhances Glycosaminoglycan Depletion in Articular Cartilage.

Version: 1 Date: 9 August 2011

Reviewer: Klaus Bobacz

Reviewer’s report:

The authors investigated the influence of FTY720 (Fingolimod), a novel immunosuppressive drug, on sGAG synthesis and gene expression of articular chondrocytes. They report a catabolic effect of FTY720 on IL-1beta/TNF-alpha activated chondrocytes, that was governed by the presence of MMP-3.

This study is very well planned and performed and provides new unexpected insights into the effect of FTY720 on articular chondrocytes. The materials&methods are sound, the results and figures are presented very clearly and the discussion section critically deals with the subjects.

Remarks:

1. The authors state that the phosphorylated form of the compound FTY720 was used. Did the authors test the not-phosphorylated form on articular chondrocytes?
2. How many different animals were used and how many independent experiments were performed for each readout system. This should be clearly stated in the Materials & Methods section.
3. Cartilage samples were acquired from adult animals. Did the authors also test cartilage derived from juvenile animals? A comparison would have been interesting since degenerative changes that occur in the elderly could influence the effects of FTY720.

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

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests