Reviewer's report

Title: Association between Expression of the Bone morphogenetic proteins 2 and 7 in the repair of circumscribed cartilage lesions with clinical outcome

Version: 2 Date: 24 May 2010

Reviewer: Celine Huselstein

Reviewer's report:

The paper presents a study of cartilage repair and more specifically on the role of BMP-2 and BMP-7 in surgically induced cartilage repair.

This is an interesting study and the results would be of interest to the community working in cartilage repair. The scope of the work is certainly within that of BMC Musculoskeletal Disorders. However, the paper as it stands is not acceptable for publication in its present form because of a number of failings in how the experimental procedure is described and presentation of results. These are explained in more detail below. If these defects are addressed in a resubmission, the paper may be acceptable.

- Discretionary Revisions (which are recommendations for improvement but which the author can choose to ignore)

INTRODUCTION:
Recent studies have suggested that bone morphogenetic protein-4 (BMP-4) are promising cartilage differentiation factors, like BMP-7. So why did the authors only study BMP-2 and BMP-7?

Bibliography could be more recent: on 40 references, only 4 were published in 2009 and no reference is of 2010.

- Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

INTRODUCTION:
"Tissuespecific" should be "tissue specific"

MATERIAL AND METHODS:
In "Study design" Paragraph: why did you exclude from the study age<17 years and >66years?
In "Characterization of patients": With the critical role played by BMPs (especially BMP-2) in fracture repair, could you exclude that no patient was operated for a fracture?

- Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)
MATERIAL AND METHODS:
In "Specimen collection paragraph" : which is the total volume aspirated?
In "ELISAs for BMP-2, BMP-7, bFGF, IGF-1, IL-1#, Aggrecan, BCA (bicinchoninic acid) Protein Assay" : explain briefly the BCA assay

RESULTS:
In "Correlation of cytokine levels with clinical parameters" paragraph : What is the interest to present the concentrations of aggrecan, bFGF, IGF-I, and IL-1#?
Results were already published in Cytotherapy Journal (Vol 11, N°8, 2009).

ABBREVIATIONS:
Define "ksk" and "psk"

LEGEND:
Define SF36 ksk/psk in Table 1 legend and R/Rho in table 2 legend.

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

Quality of written English: Needs some language corrections before being published

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