Reviewer's report

Title: Development of a Salmon-derived Crosslinked Atelocollagen Sponge Disc Containing Osteogenic Protein-1 for Articular Cartilage Regeneration: In Vivo Evaluations with Rabbits

Version: 1 Date: 17 January 2013

Reviewer: Magali Cucchiarini

Reviewer's report:

This is an interesting, well-designed study to analyze the healing process in a rabbit OCD model in response to treatment with salmon-derived collagen sponge with OP-1. Some points need further attention:

1. Can the authors provide information on the release/production of OP-1 from the sponge (both in vitro and also from the treated defects as they did not present evidence of expression by immunohistochemistry or ELISA in vivo)?

2. It would be important to also evaluate type-I and type-X collagen expression in the defects by immunohistochemistry and real-time RT-PCR.

3. Since OP-1 is also mitogenic, the authors should examine whether proliferative responses are induced following treatment.

4. The authors employed a material derived from salmon skin, they should examine the potential infiltration of immune cells in response to the treatment.

5. Could the authors possibly process repair tissue for biochemical testing like for DMMB/Hoechst assays? If tissue is still available, this would add to the quality of the findings.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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

Declaration of competing interests:

no COI