Reviewer's report

Title: Polymorphic variation of Hypoxia Inducible Factor-1 A (HIF1A) gene might contribute to the development of knee osteoarthritis

Version: 1 Date: 21 March 2015

Reviewer: Panagiotis Lepetsos

Reviewer's report:

This is an interesting paper, by Torres et al, examining the association of P582S SNP (HIF1A) with knee osteoarthritis in a Mexican population. The authors have concluded that the presence of the specific polymorphism plays a protective role in the loss of articular cartilage. However, there are some problems that need to be solved.

1. The sample size of the population is quite small. In my opinion, 70 patients and 66 controls do not suffice to support the correlation of a SNP with knee OA.
2. Patients and controls have different age and BMI. Thus, a multiple regression analysis is necessary to support any results. In my opinion, statistical analysis of this study is not sufficient.
3. The aforementioned problems and any other potential limitations are not even discussed in the discussion section.

In my opinion, this paper cannot be accepted for publication in the present form. I believe that the study should be redesigned, including a larger population number, and a multivariate approach in the interpretation of results.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.