Reviewer's report

Title: Therapeutic implications of an enriched cancer stem-like cell population in a human osteosarcoma cell line

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Reviewer: Virginia Tirino

Reviewer's report:

In this study, the authors investigate the role of CSCs populations from human osteosarcoma cell line in the responsiveness to conventional therapies. This manuscript is well written, elegant and very interesting. The hypotheses are confirmed by the results obtained and methods used are effective in carrying out the experiments. The results are clear and the discussion explains and argues effectively the data obtained. But there is one consideration to be clarified. The authors analyze MSCs markers both on sarcospheres and MNNG/HOS cells. They state that there is no significant differential expression of MSCs markers between sarcospheres and MNNG/HOS cells. If sarcospheres are cancer stem cells, most probably MSCs marker expression on sarcospheres should be higher of that expressed on MNNG/HOS cells. On the basis of this consideration, the authors should explain why they find no differences in expression of MSCs markers.

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.