Reviewer's report

**Title:** Enrichment of the Embryonic Stem Cell Reprogramming Factors Oct4, Nanog, Myc, and Sox2 in benign and malignant vascular tumors.

**Version:** 4  **Date:** 3 July 2015

**Reviewer:** Andrea Galli

**Reviewer's report:**

This is a very interesting study about the expression of stem-cell markers in benign vascular tumor. The authors showed by a semi-quantitative evaluation of immunohistochemical staining that protein expression of Oct4, Nanog, Myc, and Sox2, but not Klf4, was significantly increased in benign borderline, and malignant vascular tumors relative to non-diseased vascular tissue controls. Interestingly the enhanced levels of Oct4, Nanog, Myc, and Sox2 protein were approximately equivalent between benign, borderline, and malignant vascular tumors. This paper addresses an important area of research and contain interesting data.

The only concern is the lack of the clinical characteristics of the examined population and the clinical outcome of the patients in correlation of the stem-cell markers expression.

**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:**

I declare that I have no competing interests.