Reviewer’s report

Title: The basal epithelial marker P-cadherin associates with breast cancer cell populations harboring a glycolytic and acid-resistant phenotype

Version: 2 Date: 18 July 2014

Reviewer: Frederic Andre

Reviewer’s report:

In this paper, Sousa et al demonstrated, by using both in vitro and in vivo studies, that cell surface P-cadherin overexpression is associated to breast cancer cell populations with an adapted phenotype to hypoxia. This link suggest a role for P-cadherin in cancer cell metabolism.

The manuscript by Sousa and coworkers is fair and concise; text, legends and figures are very clear and intelligible. The core of the study is well performed using robust and appropriate technical and analytic methods. The data that are generated in this study are very consistent and full of interests, underlining the key role of P-cadherin signaling in breast cancer.

I have only few minor comments:
Figure 1 (immunocytochemical staining): P-cadh was found in 145 cases at cell membrane. In the other cases, is P-cadh present in the cytoplasm or non expressed?

I didn’ find a figure that shows that Glut-1 and caix expression was detected in peri-necrotic tumor areas; A not shown in the text (or an additional figure) should be added.

The references should be homogeneized: (see for instance the journal name in refs 46 and 41)

Level of interest: An article of outstanding merit and interest 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