Reviewer’s report

**Title:** Differences in integrin expression and signaling within human breast cancer cells

**Version:** 2  **Date:** 20 December 2010

**Reviewer:** Evangelos Marinos

**Reviewer’s report:**

It is an interesting paper. It approaches the study of integrins in relation to protein kinase C (via PMA) in breast cancer. It is known that metastatic potential is directly affected by integrin alphavbeta3 in breast cancer. On the other hand PKC is closely related to cancer grading in breast cancer.

- The question posed by the authors is well defined
- The methods are appropriate but need a little clarification
- The data appear sound
- The manuscript adheres to standards
- The discussion and conclusions are adequate
- The authors list enough literature but miss previous work [e.g. done by Havaki et al (2007)]
- The title is o.k.

The writing is acceptable

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**Major Compulsory Revisions**

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1/ The authors must explain why they use 150nM PMA as the concentration of choice. Do they have experimentise and concluded that this is the most effective for the particular experiment??

2/ How do they know that just 1 hr is enough for the cells to settle onto the coverslips and "feel at home". It has been well established that individual cells need some time to attach onto a substrate and establish their normal shape, metabolism. Is just one hr enough to allow the cells to relax and tightly bind on the substrate?? The authors should provide more information related to the procedure

3/ In discussion authors must discuss PMA addition in relation to literature [e.g. Panagopoulou E (2005)] and discuss PMA effect on stress fiber perturbation

**Level of interest:** An article whose findings are important to those with closely related research interests
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'