Reviewer’s report

**Title:** In vitro and in vivo MMP gene expression localisation by In Situ-RT-PCR in cell culture and paraffin embedded human breast cancer cell line xenografts

**Version:** 1  **Date:** 23 September 2005

**Reviewer:** nikos karamanos

**Reviewer’s report:**

**General:**
In vitro and in vivo data of this study indicate that stromal-epithelial interactions are of importance for the expression of MMPs. The latter has been examined by in situ-RT-PCR.
The manuscript is well written and easy to read also by non-experts in the field. The methods used are appropriate and well described. The conclusions are well supported by data reported. Gene expression of MMPs by breast cancer cells has been examined, however, in the past and reported in several papers, which are not refereed in this manuscript. The authors should therefore give an updated reference list and discuss in detail previous findings. For example, it has been reported that expression of MMPs depends on the cell culture condition and moreover that gene expression of MT1-MMP is much higher in MDA-MB-231 as compared to MCF-7 cancer cells. This may also be of impact in respect to the higher invasive potential of the former cells.
I propose publication of this article following some improvements in the points referred bellow:

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**Minor Essential Revisions:**
- 28 species of MMPs have been reported to date
- page 10, line 12, MT1-MMP instead of MT1-MP

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**Discretionary Revisions**
- gene expression of MT1-MMP in MDA-MB-231 and MCF-7 cancer cells, examined by RT-PCR analysis, has been also recently reported. This should be refered and discussed.

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**Major Compulsory Revisions:** An updated list of references on the expression of the various MMP types should be placed.

**What next?** Accept after minor essential revisions

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** No

**Declaration of competing interests:**
'I declare that I have no competing interests'