Reviewer's report

Title: Matrix Metalloproteinase-9 (MMP-9) polymorphisms in patients with cutaneous malignant melanoma

Version: 1 Date: 3 December 2006

Reviewer: Ghislain Opdenakker

Reviewer's report:

General
The study by Cotignola is an interesting manuscript based on solid and detailed genetic analysis of associations between MMP-9 gene polymorphisms and invasive phenotypes of melanoma. A number of minor changes will enhance the readability and clarity.

1. page 4: the abbreviation MMP stands for MATRIX metalloproteinase (correct this also in the list of abbreviations).
2. page 4: the indicated literature references 6 and 7 are NOT about MMP-9 ACTIVITY, but instead about MMP-9 LEVELS. It needs to be noticed that levels can be extremely high without any measurable activity (e.g. when TIMP levels are higher or all enzyme is in the proform).
3. page 4: It is relevant to address the finding of immunohistopathological analysis in association with different types of growth modes in melanoma (van den Oord JJ, Paemen L, Opdenakker G, de Wolf-Peeters C. Expression of gelatinase B and the extracellular matrix metalloproteinase inducer EMMPRIN in benign and malignant pigment cell lesions of the skin. Am J Pathol. 1997 Sep;151(3):665-70).
4. page 5: last paragraph: indicate at this place - together with the gelatinase B (capital letter) gene - the literature reference and description of the known polymorphisms, as these were reviewed by Van den Steen et al. 2002. In addition to the description of SNPs and the effects on transcription, also the microsatellite variations have been detailed and detailed in this review. Indeed, incorporating this information in the introduction section enhances readability and clarity.
5. Page 14 second paragraph: "These contradicting results" replace by "These divergent results", because the studies were about different types of cancer. and may thus not the (instead at the very end of the discussion section) will facilitate reading by non-specialists.
6. page 7: PGDB-like and kringle-like are terminologies not applicable to MMPs. Kringle structures are typical for serine proteinases, but not MMPs.
6. reference 31, second name is Estève and not Esteve.
7. Another issue (not compulsory) is the evidence, by e.g. the Stanford or Ann Harbor microarray studies, that MMP-9 expression is more associated with inflammatory diseases than with invasive or metastatic cancer.

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'