Reviewer's report

Title: Identification of novel functional sequence variants in the gene for peptidase inhibitor 3

Version: 1 Date: 23 April 2006

Reviewer: Felipe Vadillo-Ortega

Reviewer's report:

General

Authors demonstrated the presence of several polymorphisms in the human PI3 gene, including two SNPs in the promoter region that may be relevant to the transcriptional regulation of the gene in amnion cells. This information is convincing and adequately supported.

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

1. Functional effects on the transcription of PI3 gene associated to the two SNPs and relevant to the amnion biology were not addressed in this paper, and hence there is not experimental evidence to support the assumption of a relation between these variants of the gene and an effect on downregulation of PI3 gene in amniochorion affected by PPROM.
2. More information on the characteristics of the membranes used to derive amnion primary culture in this study must be provided, in order to figure out the possible role of tissue functional status related to the presence/absence of labour and expression of the nuclear factors that recognize both SNPs.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

The general hypothesis behind these studies is related to an altered proteolysis balance in the amniochorion conducting to PPROM. Despite it is not the purpose of this paper, I would like to raise some question for this hypothesis that can be commented by the authors: How relevant is an elastase for connective tissue integrity in amniochorion?. Is elastase actually transferred from the amniotic fluid to the amniochorion extracellular matrix? Is the chorion a source for this peptidase inhibitor?

What next?: Accept after discretionary revisions

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

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests.