Reviewer’s report

Title: Analysis of circulating hem-endothelial marker RNA levels in preterm infants

Version: 4 Date: 24 May 2009

Reviewer: Rossa Chiu

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The authors have addressed the comments that were previously raised. The experimental data that were not available in the first manuscript version are now clearly presented in the revised manuscript. Thus, the validity of the conclusions drawn can now be reassessed. The following are my main comments:

Minor essential revisions:

1. Has there been any attempt to confirm that each of the analysed samples were free from DNA contamination (e.g. by no RT control) and that the detected RT-PCR signals were genuinely from the corresponding RNA transcripts?

2. Given the available data, some of the concluding statements are too strong. For example, p12, first full paragraph, last sentence, “Thus, we hypothesize that an increase ...Tie2, ...reflects the formation of excessive and disorganized vasculature...”. Such hypotheses can be made. However, as no functional correlation between Tie2 expression and the described pathology at the tissue level, those statements need to be supplemented by comments saying that further experimental studies are required to substantiate those hypotheses.

3. Another example of overinterpretation of the data of the present study can be found on p12, last paragraph, first sentence, “...it is not clear ...Tie2 transcripts originate from BM-derived endothelial progenitor cells, or...”. As no functional study on Tie2 has been done at the cellular level, one cannot make the comment limiting the possible origin of the circulating Tie2 mRNA just to those three stated scenarios. As the study only presents RT-PCR data, one could only state that the cellular origin of the detected circulating Tie2 mRNA needs to be further investigated.

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 have filed patent applications on aspects of noninvasive prenatal diagnosis.