Reviewer’s report

Title: Smoking decreases the level of circulating CD34+ progenitor cells in young healthy women - a pilot study

Version: 2 Date: 12 November 2009

Reviewer: Viviane Conraads

Reviewer’s report:

In this paper, the authors compare circulating CD34+ and CD34+CD133+ cells between healthy smoking and non-smoking women in different phases of their menstrual cycle.

I have the following remarks:

1. In their introduction, the authors describe that to define EPC, VEGFR2 is used. Why then, was this not replicated in their study?

2. How comparable were these groups in reality? Tot chol, LDL and triglycerides, as well as age were higher, HDL was lower in smoking women. While only age was significantly lower, total cardiovascular risk is a sum of different components. I would like to see the Framingham risk score for both groups.

3. In relation to remark 3, the authors describe on the last page of their results, last line, that, after correction for age, no influence of “this parameter” was seen. What exactly do they mean? I would like to see multivariable regression analysis for relevant determinants of EPC numbers.

4. For table 3, we need repeated measures ANOVA, time x group effect with post-hoc comparison.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests.