Reviewer's report

Title: Bone turnover in passive smoking female rat: relationships to change in bone mineral density

Version: 3 Date: 7 February 2011

Reviewer: Malgorzata Brzoska

Reviewer's report:

The manuscript ‘Bone turnover in passive smoking female rat: relationships to change in bone mineral density’ by Gao S. et al. has been improved compared to its previous version; however some questions still need attention.

The questions that should be addressed are listed below.

1) page 4, lines 82-83; markers of bone resorption are measured not only in the urine, but also in the serum

2) page 4, lines 83-86; this sentence needs revision.

3) page 6, line 129; it should be ‘…lumbar vertebrae (L4-L6) were…’

4) the results statistical analysis are still inappropriately interpreted. It cannot be stated that anyone parameter was decreased as a result of exposure to smoke when there was no statistically significant difference. For example, page 8, line 179 it can be read that smoke exposure resulted in a decrease in the BMD of the lumbar spine by 0.5%, 0.9% and 11.8% after 2, 3, and 4 months, whereas in the next sentence we can read that the BMD at 2 and 3-month did not differ compared to the control. This same problem refers to the femur BMD and markers of bone turnover.

5) Page 9, lines 199-201; we can state that correlation (positive and negative) occurred only in the case when it is statistically significant.

6) Page 12, lines 261-262; what did you mean?

7) Page 12, lines 281-285. In this site it should be discussed which components of the smoke may affect the skeleton.

8) Page 13, lines 292-296; this text needs revision. The Authors should focus on what was revealed by Lee et al (not on what was done).

9) Page 14, line 312; human may also be a passive smokers

10) Page 14, lines 322-323; Is seems better to mention first that passive smoking increases bone turnover and next that it decreases bone mineral density.

11) The English through the manuscript needs correction, there are numerous grammatical errors in the text, for example page 5, line 108-110: ‘…three control group and three smoke-exposed group. The smoke-exposed group were breed..’ it should be ‘…three control groups and three smoke-exposed groups. The smoke-exposed groups were breed...’
**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests