Author's response to reviews

Title: Effect of Apoptosis in Neural Stem Cells Treated with Sevoflurane

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Answers to Reviewer Pisano Pascal:

1. The Background/Introduction section does not show enough the main interest of this study. The first paragraph of the Discussion section "Sevoflurane anesthesia in infant rats can result in long-term cognitive impairment, possibly by inhibiting neurogenesis [13]. The hippocampus is critical for memory consolidation and is one of only two mammalian brain regions where neural stem cells (NSCs) are renewed continuously throughout life. Thereby, further studies with sevoflurane exposure of NSCs are necessary to confirm whether sevoflurane can influence hyperplasia and apoptosis of neural cells" better shows the aim of the paper and it seems more appropriate, in the reviewer view, to place this at the end of the Introduction. Therefore the first sentence of the discussion should be revised.

Response: We agreed with the reviewer’s view, and we have changed this section on line 50-55, page 3. We have revised the first sentence of the discussion on line 199-205, page 10.

2. Material and methods: please justify the concentration of sevoflurane used (1MAC) which is higher than this reported by Pellegrini et al. (Paediatr Anaesth. 2014 Jul;24(7):749-59 (0.5 MAC) in neonate rats.


Response: We have cited the article for [24] on line 219, page 11.

4. In figure legends please type GABAA receptor with A subscripted.
Response: We were sorry to make a mistake, and have corrected the errors on line 408-412, page 17.