Reviewer's report

Title: Cortisol suppression and hearing thresholds in tinnitus after low-dose dexamethasone challenge

Version: 1 Date: 9 August 2011

Reviewer: Berthold Langguth

Reviewer's report:

This is a well conducted study, that investigated alterations in HPA axis function and hearing function in people with tinnitus by using the dexamethason suppression test.

The manuscript is based on clear hypotheses, the methods and statistics are adequate and the results well discussed. I have only minor comments:

1. In figure 2 the AUC for the two groups for day 1,3 and 5 are displayed. The inverted U-shape of the tinnitus group is discussed as a potentially abnormal delayed reaction to dexamethason, resulting in the reduction on day 3. However the authors do not provide an explanation for the relatively pronounced reduction over time in the control group. This could theoretically be an ever more delayed dexamethason effect. This isse should be discussed

2. It is not entirely clear, which value was finally used as baseline for calculating the dexamethasone suppression effect. However the choice of this value is crucial. Looking on the data it makes a huge difference whether the day 1 is used or whether day 1 and day 3 or day 1,3 and 5 are averaged. This should be discussed in more detail

3. results with a p value of 0.09 should not be reported as marginally significant but rather as a trend

Level of interest: An article of outstanding merit and interest 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 have no competing interests.