Reviewer's report

Title: The demand control model and circadian saliva cortisol variations in a Swedish population based sample (The PART study)

Version: 2 Date: 14 August 2006

Reviewer: Clemens Kirschbaum

Reviewer's report:

General
Although I think very highly of the scientific works by this fine group of colleagues, I believe that the present study provides little or no data that will advance the field. As they acknowledge in the discussion (pp 11-12), the findings have "relative statistical weakness" which may be due to the fact that the saliva samples in the morning were obtained with a considerable time lag difference between subjects (p. 12). Moreover, as the authors state, it is "puzzling" that "active and passive groups could not be differentiated from one another" (p. 12) with no adequate explanation for this surprising observation. The differences in cortisol levels that the authors focus on in this report is (a) very small, (b) limited to the group of women, and (c) not statistically significant when computed with an appropriate procedure for this type of data (ANOVA or similar). The explanation they provide for the non-difference in the group of men (N too small) is hardly acceptable with well over 200 individuals studied.

In sum, the authors have conducted a large study which would have allowed for a more solid data base for the effect of job strain on cortisol levels. However, no interpretable results were obtained for a number of reasons. In my view, the data will not be of great help to the field to understand the associations between job stress/strain and health better when considering the present findings.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

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Discretionary Revisions (which the author can choose to ignore)

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What next?: Reject because too small an advance to publish

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:
I declare that I have no competing interests