Reviewer’s report

**Title:** Posttraumatic stress disorder is associated with an enhanced production of pro-inflammatory cytokines by peripheral blood mononuclear cells

**Version:** 1  **Date:** 29 October 2012

**Reviewer:** Nicolas Rohleder

**Reviewer’s report:**

The authors set out here to test whether low-grade inflammation, and in vitro production of inflammatory cytokines are activated in a group of PTSD patients compared with controls. This is based on the rationale that previous studies have yielded inconsistent results with regard to plasma inflammatory cytokines.

One of the concerns with the current study is that although I agree that more data is needed on peripheral inflammation in PTSD, this study does not really address the problem that is most likely the underlying cause for the current inconsistent literature. The current inconsistency is most likely the result of the fact that the different PTSD populations studied and summarized as having PTSD are too heterogeneous, a problem that is beginning to be resolved with regard to HPA axis activity, but that is not currently addressed in the literature of peripheral inflammation in PTSD. The approach of the current paper is to add MORE data points to our current literature, which is valuable as it will be useful in later systematic reviews or meta-analyses to shift the balance to yes, we have low-grade inflammation vs. no, we don’t, but it remains largely an attempt to replicate earlier studies. A better approach for the future of research on inflammation in PTSD would be to identify reasons for inconsistency, and specifically and strategically target these inconsistencies by comparing different types of traumas, age groups, comorbidities, etc. Nevertheless, this is a valuable addition to our knowledge, just not very novel or innovative.

Furthermore, it is unfortunate that the in vitro studies were only done on a sub sample of the entire group, further limiting the impact of the results. Related to above comment, it is not really a big step forward to repeat what has been done in previous studies, but to introduce another difference, or more heterogeneity, by using one of many approaches (i.e. PBMC vs. whole blood, incubation times, type and concentration of stimulants). Here again I would argue that yes, this is good additional info, but a study that would bring us forward would identify potential reasons for inconsistency in findings, and derive strategic and targeted tests.

**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable

**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