Reviewer’s report

**Title:** Long-term life dissatisfaction burden is associated with inflammatory alterations

**Version:** 1  **Date:** 5 December 2012

**Reviewer:** Ines Kaufmann

**Reviewer’s report:**

Major Compulsatory Revisions

Life dissatisfaction is characterized by a heterogeneous clinical picture with a decreased mental health status and changed inflammatory conditions. The authors RISSANEN et al. are reporting on long-term dissatisfaction in association with decreased adiponectin levels, poor sleep and poor social support. The study conducted by RISSANEN et al. is interesting because they showed for the first time that adiponectin is not only a marker of diabetes mellitus and coronary artery disease, but also of importance in inflammation.

1. The title is misleading and does not demonstrate a thread for the topic. The title should have an adequate accuracy. Decreased adiponectin levels could be suggestive for inflammatory alterations; however, the causality has not been shown in this study. Therefore, the title must be adapted.

2. Reading the background, the reviewer is missing a hypothesis for the investigation made by RISSANEN et al. Why did the authors consider adiponectin and resistin as biological factors associated with long-term dissatisfaction? Low adiponectin plasma levels has been reported in major depression (J Psychiatr Res. 2012 Aug;46(8):1081-5) as well as panic disorders (J Affect Disord. 2012 Aug;139(3):302-5). These facts could contribute to a well-founded hypothesis.

3. An anxious or depressed person often lives alone and suffers from poor quality of sleep or low social support. Did the authors assess GADI (Generalized Anxiety Disorder Inventory) anxiety measure, the BDI-II Cognitive–Affective factor measure or the 29-item Hamilton Depression Rating Scale?

4. Hypoadiponectinemia has been demonstrated to be independently associated with metabolic syndrome, including type 2 diabetes, hypertension, atherosclerosis, and non-alcoholic steatohepatitis. The authors should state every of these conditions in their patient populations.

5. Adiponectin levels are also changed in several cancer patient groups, e.g. it is lowered in endometrial, postmenopausal breast, gastric, prostate, and colon cancer. Did the authors exclude patients with malignant disorders?

6. Adiponectin is increased in hemodialysis patients. Did the authors assess this condition in their patient groups?

7. Resistin is a member of the cysteine rich family of resistin-like molecules that...
are associated with the activation of inflammatory conditions. However, more research is needed to clarify the exact role of resistin in inflammatory human diseases. Therefore, it is very speculative to determine this parameter in a psychiatric condition in which the underlying inflammatory process is not clearly defined. Furthermore, serum resistin concentrations are elevated in patients with non-alcoholic fatty liver disease, and increased resistin levels correlate with histological severity of liver disease. Did the authors consider this and other conditions changing resistin?

8. The thread in the section ‘Discussion’ is not identifiable. The authors should discuss their data not only in the light of long-term dissatisfaction, this would be a one-sided view. The clinical relevance of the conclusions drawn is not clear. The conclusions of the authors are not strong enough to emphasize the clinical relevance of the findings.

Minor Compulsory Revisions

1. Did the authors explore different oligomeric forms of adiponectin? If no, what was the reason?

2. The authors measured TNF-#, one of the insulin resistance inducible factors, in their patient groups. TNF-# is not very stable, it has a short half-life time in blood after withdrawal. Therefore it is important to describe the blood sample processing to exclude a prolongation or mistakes in sample processing. Were the samples measured as a batch at the end of the study? If yes, please describe the storage conditions. How long was the sample processing delay after blood withdrawal?

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests.