Author's response to reviews

Title: Serum brain-derived neurotrophic factor levels and personality traits in patients with major depression

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Version: 7 Date: 22 January 2015

Author's response to reviews: see over
January 22, 2015

Dear Dr. Van Rheenen

We sincerely appreciate the thoughtful comments of the reviewers. Please find our responses below.

Sincerely,

Hajime Baba M.D., Ph. D., Associate professor
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**Reviewer-1: Dr. Alessandra Minelli**
The authors addressed all the comments.
**Reply to the comment:**
Thank you for your thoughtful comments.

**Reviewer-2: Dr. Harris Eyre**
The authors have adequately addressed my concerns.
**Reply to the comment:**
Thank you so much.
Thank you for your thoughtful comments.

**Reviewer-3: Dr. Maria de las Mercedes Perez-Rodriguez**
The hypotheses need to be rewritten for clarity since they are difficult to understand in its present form (i.e., there are several typos and they seem to contradict each other). Since the authors do not include any measures of stress (chronic or acute) they should not include stress in the hypotheses.
**Reply to the comment:**
Thank you for your thoughtful comments. We have reduced the number of
hypotheses to one for clarity, and we have removed references to stress in the hypothesis. The revised hypothesis, as stated below, is highlighted in the “Background” section of the manuscript.

While serum BDNF levels are negatively correlated with depressive symptoms, not all depressed patients display lower serum BDNF levels than controls [15]. We hypothesize that serum BDNF levels do not decrease in MDD patients with high HA or low SD because these traits may enhance susceptibility to depression even in the absence of biological changes.

**Editor’s comment-1**
The hypotheses need to be rewritten for clarity since they are difficult to understand in their present form (i.e., there are several typos and the first contradicts the second). Since you do not include any measures of stress (chronic or acute) you should not include stress in the hypotheses.

**Reply to the comment:**
The revised hypothesis can be found above and in the “Background” section.

**Editor’s comment-2**
I would also encourage you to explicitly state in the discussion, which of your hypotheses was supported.

**Reply to the comment:**
We have restricted the number of hypotheses to one, and have indicated in the “Discussion” section that it was supported. The revised statement can be found below and is highlighted in the manuscript.

In the present study, we hypothesized that the variability in serum BDNF levels was due to an absence of depression-related biological changes in MDD patients with weak SD, and this hypothesis was supported by the negative correlation between serum BDNF and SD.

**Editor’s comment-3**
Please ensure that you have the manuscript proof read by an English language speaker as there remain some language issues.

**Reply to the comment:**
We used a professional language editing service.