Reviewer's report

Title: Allograft inflammatory factor 1 (AIF-1) is a new human adipokine involved in adipose inflammation

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Reviewer: Michiaki Fukui

Reviewer's report:

The authors concluded that AIF-1 is a novel adipokine produced mainly by macrophages within WAT. Its expression is increased in obesity and associates with unfavourable metabolic phenotypes.

This paper is potentially interesting and well written.

However, there are some points to be resolved.

1. At first, this study included subjects with obesity in only women. Sex hormone may greatly affect the function of adipose tissue. Therefore, the authors should described as such in the title and main text throughout this manuscript.

2. In addition, were the subjects pre-menopause? Are there any influences of menstrual cycle?

3. In Table 1, simple regression analyses demonstrated that BMI, KITT and adiponectin were correlated with AIF-1 expression. However, multiple regression analysis demonstrated that KITT and Delta were independent determinants of AIF-1 expression. Please reconsider the second paragraph of page 10. In addition, the authors should describe the independent variables in the multiple regression analysis in detail.

4. Partial r between AIF-1 and KITT was -0.317 instead of 0.317 in Table 1. Please correct it.

5. The authors concluded that AIF-1 might be a novel target for obesity and its metabolic complications. The authors are recommended to quote the reference (Fukui et al. The serum concentration of AIF-1 is correlated with metabolic parameters in healthy subjects. Metabolism 61; 1021-1025, 2012) and discuss about it.

Level of interest: An article of importance in its field

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.