Reviewer's report

Title: The association between the angiotensin-converting enzyme-2 gene and blood pressure in a cohort study of adolescents

Version: 1 Date: 16 March 2013

Reviewer: QI ZHAO

Reviewer's report:

Malard et al. conducted an association study between tagSNPs of the ACE2 gene in the X chromosome and blood pressure levels or longitudinal blood pressure changes among a cohort of adolescents. The study identified genetic variants of ACE2 are associated with blood pressure or blood pressure change, adding more evidence for the association of ACE2 with blood pressure. I only have a few concerns.

Major Compulsory Revisions

1. The study participants are from different ethnicities, with a majority of European ancestry. The tag SNP was selected only based on the LD structure of the HapMap CEU data. They may not fully cover the variants of ACE2 for other ethnicities. Did the author look at what is the coverage of these four SNPs for other ethnicities? The author may need to discuss this in the Discussion section.

2. Please show exact P values for the association between SNPs and BP levels or BP changes in Table 2 and Table3, respectively. The author may also need to use exact P values for significant findings throughout the paper, instead of using P < 0.05 or <0.01.

3. Was any method used to adjust for multiple testing caused by multiple tested SNPs and phenotypes?

4. Were the genetic association changed for female if the analyses include heterozygotes?

Level of interest: An article whose findings are important to those with closely related research interests

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.