Reviewer’s report

Title: Genetic Variants in CYP4F2 were Significantly Correlated with Susceptibility to Ischemic Stroke

Version: 0 Date: 23 May 2019

Reviewer: Ashley Budu-Aggrey

Reviewer's report:

This is an interesting candidate-SNP study where the genetic contribution of CYP4F2 variants towards ischemic stroke has been investigated within a Han Chinese population. However, I think more detail is required to support the conclusions of the study.

Abstract

* Line 17, if SNPs has been defined, then can continue to say "SNPs".

Introduction

* Is there a reference for the first sentence? (Page 5, line 3)

* Typo on page 5, line 56 with "regulates"; and page 7, line 9 with "The all cases met".

Methods

Was the any sample QC performed, for example to exclude related individuals, those with mixed ancestry etc. Any efforts to identify possible population stratification?

Discussion

The rs2108622 SNP that has been previously reported, is this in LD with any of the SNPs in this current study?

Is there any further work that could be done to support the claims made in this study? Any plans to replicate the results within an independent sample? The sample size is small, but could these variants be looked up within a larger independent Chinese Han population and a meta-analysis be formed? Is there any functional evidence that could be found for the SNPs investigated to support the role they play in disease susceptibility? Any bioinformatic work that could be done to suggest the functional implications (if any) of these variants. I think some more detail could be given to provide evidence of this variants and gene region having a role in IS. How does this
study compare with other stroke studies that have been performed in the same population? For example by Lee et al, 2017 (https://www.nature.com/articles/s41598-017-14355-3).

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

Yes

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

**Declaration of competing interests**
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?
5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal