Reviewer’s report

Title: Enhancer variants associated with Alzheimer’s disease affect gene expression via chromatin looping

Version: 0 Date: 21 Apr 2019

Reviewer: Shandar Ahmad

Reviewer's report:

This manuscript reports a nice and thorough study of Alzheimer disease associated SNPS and aims to investigate the mechanism by which AD-SNPs might contribute to their eQTL features. Authors have carefully identified the set of SNPS, which are located in enhancer regions and have association to genes likely to affect early onset of Alzheimer's. With a help of GTEX, ENCODE and several other data sets, authors have been able to pinpoint how two AD SNPs may be linked to AD-SNP genes by way of chromatic looping. They have demonstrated that CTCF associated long range contacts between non-coding SNPs and corresponding genes are implicated in AD. I believe the work has been carried out diligently and the conclusions drawn are reasonable.

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

Yes

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
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