Reviewer’s report

Title: Reduced serum levels of pro-inflammatory chemokines in Fragile X Syndrome

Version: 1 Date: 10 Jan 2020

Reviewer: Cristan Farmer

Reviewer's report:

The authors have suitably addressed my concerns and I have no further requests for clarification or revision. As a matter of opinion (not requiring response), I remain somewhat unsatisfied by their description of the importance of the clustering approach; this is a focus of the paper (e.g., it's the last line of the abstract), but it is unclear what knowledge was gained. The clustering is useful in describing the underlying biology affected by FXS, as it provided additional information relative to the univariate comparisons, but it does little to inform the stratification of samples (as mentioned in the abstract/discussion). The clustering simply recapitulates the genetic diagnosis—we don't need to guess diagnosis from a handful of immune markers, as we can objectively assess diagnosis with genotype. Had the clustering identifying subsets of the FXS sample, I would see support for the line of argument that these results are informative for the stratification of samples.

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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