Reviewer's report

Title: At the cross-roads of participatory research and biomarker discovery in autism: The need for empirical data

Version: 4 Date: 9 August 2015

Reviewer: Sarah Parsons

Reviewer's report:

Thank you for responding thoroughly and constructively to the reviewers' comments - the paper is much more balanced, nuanced and conceptually coherent as a result. I suggest a few minor edits to further improve and strengthen the contribution of the paper:

Minor Essential Revisions

line 98: given that Israel et al's principles are so central to your work, they need to be clearly listed here so that all nine are presented and numbered. This enables clearer links to be made by the reader between Israel et al's conceptualisation and your application of it [lines 270 - 273 can then reference the relevant numbers from this list to show these links very explicitly].

line 123: 'strong claims' of conflict between researchers and stakeholders - a supporting reference is needed to support this statement.

line 137: 'previously we summarized...' - it is not clear whether this statement relates to the earlier discussion or a previous paper. If the latter then a reference is needed; if the former then there needs to be a clearer overlap between what was said earlier in the paper and what is stated here.

line 176: 'Concerns surround the potential...' - are these your concerns or others'? Again, clarify this and support with a reference if applicable.

line 178: avoid overgeneralising - 'some' non-participatory RCTs may have led to disappointing results...

line 285-286: percentages quoted from other research are meaningless unless we also know the n; please state the n for each paper so that the reader can see what the percentages mean in context.

Discretionary Revisions

cf. line 419-420: given that the authors rightly imply that there should be an avoidance of making unwarranted distinctions between the 'community' and 'researchers', it would be appropriate to also include here some reference to the work of autistic researchers and advocates who are increasingly contributing to debates (e.g. Damian Milton in the UK; Ari Ne’eman in the US).
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'