Reviewer's report

Title: CYP19A1 and PPARG promoter methylation in saliva associated with milestones of pubertal timing in urban girls

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Reviewer: Esko Wiltshire

Reviewer's report:

Stueve et al provide interesting data on CYP19A and PPARG promoter methylation and pubertal timing in Hispanic and African American girls. The numbers are relatively small, but the results are interesting and as the authors note would be worth following up in a larger study

Major Points:

Methods: 1. Only 130 out of 416 possible subjects enrolled at baseline were included in the current study. What happened to the other possible subjects...the authors need to expand on why they were excluded rather than just saying "130 had the data needed", so we can understand the population better.

2. Given the evidence relating pubertal timing to whether the biological father is in the household, how many of the girls were in households with both parents?

Discussion:

The authors should comment on generalizability given they have only studied Hispanic and African American girls

Minor Points:

Abstract: in the conclusions section of the abstract, the word "in" is missing at the end of the first sentence - "breast development in overweight girls"

The authors in the introduction and discussion emphasise metformin as a PPARG agonist. As most of the effects on metformin are not related to this mechanism this is a long-bow and I think shouldn't be emphasised to this referee.

The figures are nice but could probably just be referenced

Results: "Gene methylation related to milestones of pubertal development": The first sentence of this paragraph is a repetition of information included in statistical analysis and could be removed.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.
Declaration of competing interests:

I declare I have no competing interests