Reviewer’s report

Title: Association between a rare SNP in the second intron of human Agouti related protein gene and increased BMI

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Reviewer: Giles Yeo

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Kapa et al have reported the association of a rare SNP in intron 2 of AgRP with increased BMI.

There are some interesting findings here, particularly the possible interference of a microRNA.

However, my major problem is because this variant is so RARE, there are no reported homozygotes in the study group, and very few actual carriers. I appreciate that the association does reach statistical significance, however, the authors will need to increase the numbers of their study. Perhaps they can collaborate with other European cohorts to do this?

I realize that asking for 'more numbers' might seem unfair. But I think that if the authors believe their findings, it is a worthwhile exercise. In particular, it will be interesting to see the phenotype of a patient that is homozygous for this SNP, considering its possible role in a known miRNA.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests