Reviewer’s report

Title: Analysis of SNP-SNP interactions and bone quantitative ultrasound parameter in early adulthood

Version: 0 Date: 16 Jul 2017

Reviewer: Javier del Pino

Reviewer's report:
This is an interesting study about the relationship between QUS and the interaction of several genetic variants related to bone density in a young Spanish population. Its results highlight the interaction between genetic variants of the ESR1 and LRP5 genes involved in the maintenance of bone mass.

Minor revision T
The authors consider that their results may suggest an influence on early mineralization (page 6, lines 14-16). However, neither ESR1 nor LRP5 are involved in bone mineralization. In addition BUA is a measure of bone density but not of bone mineralization.

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.

Not relevant to this manuscript

**Quality of written English**

Please indicate the quality of language in the manuscript:

Acceptable

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