Reviewer’s report

Title: Aging Syndrome Genes and Premature Coronary Artery Disease

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Reviewer: Alistair Hall

Reviewer’s report:

General
EXTERNAL PEER REVIEW
Aging Syndrome Genes and Premature Coronary Artery Disease
BMC Medical Genetics
Rearch article

Adrian F Low, Christopher J O'Donnell, Sekar Kathiresan, Brendan Everett, Claudia U Chae, Stanley Y Shaw, Patrick T Ellinor, Calum A MacRae

1. Is the question posed by the authors new and well defined?
The main factor in the causation of coronary artery disease is AGE. Consequently an investigation of recently identified genes associated with premature aging (progeria) is of interest.

The final sentence of the ‘Background ’ (P 6 lines 5-9) do not belong here as this summerises findings and conclusions based on findings before the design and results of the investigation have been introduced to the reader.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work?
Initially it appeared that there was no ‘Methods’ section. Fortunatley I discovered that at end of manuscript. The detail is certainly sufficient – once it has been found!

3. Are the data sound and well controlled?
Results are briefly summarised under three headings.
‘Subjects’ – method of enrollement (e.g. sequential) and basis of definition of CAD are not described. Some baseline variables are described and differ as expected between the two groups.
Definitions of cardiovascular risk factors are not described.
‘LMNA genotypes’ – Two SNPs excluded from analysis – others showed no difference between groups when considered in haplotype blocks.
‘KLOTHO genotypes’ - A difference in the freqesncy of KL-VS haplotype was noted (14.04% v. 18.18%) though this did not achieve conventional levels of statistical significance (p=0.091). Given the small study size this may have represented a false negative finding.
The limitations of small sized association studies are well summarised in the discussion – and represent a generic problem in the hunt for disease genes. Use of halpotypes is an improvement over single SNPs.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
In places the set elements of scientific paper are overlapping (e.g. results, discussion and conclusions in ‘Background’ section).

5. Are the discussion and conclusions well balanced and adequately supported by the data?
Discussion begins as a repeat of ‘Background’ (first three paragraphs) and might be shortend.
6. Do the title and abstract accurately convey what has been found? 
Yes

7. Is the writing acceptable? 
Standard of English / grammar / spelling is entirely satisfactory.

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Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

NONE

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Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

REMOVE CONCLUDING STATEMENT OF 'BACKGROUND'

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Discretionary Revisions (which the author can choose to ignore)

Might seek to address other examples of repetition and also some 'misplaced' text e.g. Page 7 Line 3 - 'Previous studies...” This belongs either in 'Background' or 'Discussion'

What next?: Accept after discretionary revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

I declare that I have no competing interests.