Reviewer's report

Title: Linkage Study of Fibrinogen Levels: The Strong Heart Family Study

Version: 1 Date: 31 May 2008

Reviewer: Moniek de Maat

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Major Compulsory Revisions

The authors used 382 short tandem repeats to study the total genome. Techniques are available using 500K or 1M SNP chips that have more complete coverage of the genome. The authors should discuss why they did not use this technology.

Since no strong linkage was observed, it should be discussed whether the study design and the sample size were optimal to find effects. Please give a power calculation. It should also be discussed in more details what it means that results were not confirmed in the other centers: I would like to see for the highest LOD scores the scores in each center.

Minor Essential Revisions

Since risk factors do not always behave the same in different ethnic background, it would be helpful to tell in the background what the association between fibrinogen levels and risk was in the SHS. The authors state that fibrinogen may be only a marker of inflammation: did they try to adjust the fibrinogen levels for other sensitive inflammatory markers, such as C-reactive protein, and what was the effect?

The limits of >= 100 cigarettes during the lifetime and 12 alcoholic beverages during the last year to define smoking and alcohol use seem very low and I wonder if it wouldn't give a better result of the effects if higher limits were used.

Page 6: AZ, DA and OK should be written in full when used for the first time.

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