Reviewer's report

Title: Suggestive linkage detected for blood pressure related traits on 2q and 22q in the population on the Samoan islands

Version: 1 Date: 14 May 2009

Reviewer: Nora Franceschini

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This is a linkage study of blood pressure and hypertension traits in Samoan islands individuals, a population largely understudied for genetic effects on blood pressure outcomes. The study identified two suggestive loci for blood pressure on chromosomes 2 and 22, replicating findings in other populations. The findings are of interest because of the population under study.

Major Compulsory Revisions:

The context for studying blood pressure and hypertension in Samoan islands individuals should be given, i.e., prevalence and incidence of hypertension in this population, impact of hypertension in morbidity and mortality and so on.

The heritability of blood pressure traits is low for a described homogenous (?) isolated population. Please comment. If available, compare these findings to populations of similar ancestry.

The discussion should also include genetic findings from candidate and genome wide association studies of genes located under the linkage peaks.

Power to detect an effect may be a concern in this analysis. Please include the number of relative pairs used for the analyses.

Please define the covariates: smoking, alcohol intake and physical activity. Is physical activity self-reported?

Minor Essential Revisions:

Table 1, add relative pairs

Table 1; are the mean blood pressure levels already adjusted for the medication use?

Level of interest: An article of limited interest

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