Reviewer's report

Title: The interactive role of diabetes mellitus type 2 and E-selectin S128R mutation on coronary heart disease manifestation

Version: 1 Date: 27 February 2007

Reviewer: Oswald Friedrich F Wagner

Reviewer's report:

General Comments
Abu-Amero and colleagues describe the interactive role of diabetes mellitus type 2 and E-selectin S128R mutation on coronary heart disease manifestation in a group of Saudi men and women. The population is well selected, however this is a purely descriptive paper and thus might be better published as a letter or short communication. Additionally, the paper should be critically read for grammar and wording.

Major Compulsory Revisions

Results
The Result section is very short and difficult to understand – could the authors please describe their findings in more detail.

What does: The E-selectin – diabetes mellitus interaction was studied by creating a variable which was used as a factor to predict CAD by logistic regression. confer?

the presence of DM2 was consider as the environmental factor – considered?

The selected statistical method may be applied in addition. However descriptive and non-parametric tests should not be omitted entirely.

Why did the authors not measure plasma selectin levels in addition? – this might also help speculate on the underlying mechanism.

Was the Hardy Weinberg equilibrium reached?

Discussion
It suggests also that role of this gene in CAD is not specific for a certain ethnic group, but rather linked to the prevalence of DM2. – do the authors have any reference or data to support their statement? Could the authors speculate on any underlying effects or regulatory effect of the polymorohism?

References
As this is not a short report – unless not stated - the current work - especially the Discussion section - should be more extensively referenced.

Minor Essential Revisions
Abstract
Line 2: is not fully understood.
The results show that in the absence of DM2, the presence of R mutant allele does not have a significant effect on the development of CAD (p = .431, OR 1.28). – please rephrase – does the author mean carriers?

What does the author mean with deleterious?

Methods
among others - please describe

rs Number of the selected polymorphism is missing

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions
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