Reviewer's report

Title: The uncoupling protein 1 gene, UCP1, is expressed in mammalian islet cells and associated with acute insulin response to glucose in African American families from the IRAS Family Study

Version: 1 Date: 5 December 2006
Reviewer: Steven Elbein

Reviewer's report:

General
This is a nicely written paper that examines UCP1 and UCP2 in the IRAS family study. The authors report associations of UCP2 with BMI in Hispanic families, and UCP1 with AIRg in African Americans with some support in rural Hispanic families. They go on to show that UCP1 is indeed expressed in the pancreas. The work is of value and in some respects is novel. The population is unique and the work makes a significant contribution.

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

None - my comments are considered minor and involve providing some more data.

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

1) Please provide the marginal means within the paper as tables. As this is an online journal, providing the tables elsewhere is not needed and makes the paper difficult to read. Please include traits that show nominal significance - for example AIRg in Hispanics should be included, as should A64T and AIRg in African Americans.

2) Figure 2, the band is somewhat hard to see, particularly when the figure is printed. Perhaps marking the faint band in lane 2 directly with an arrow would be helpful.

3) For all of the figures, numbering the lanes makes for difficult reading. Is it not possible to label the lanes with something that provides more information? A brief label would be far more helpful than referring to the legend to match up the number.

4) Please be careful in the Conclusions not to claim replication when the effects are in different directions (HDL). Whether this is a replication is highly controversial.

5) Figure 3 would also benefit from more descriptive titles for each photograph. A bit more description of this figure would likely benefit readers. The colocalization of UCP1 and insulin is not immediately obvious given different tissue slices and a resolution that is not clear regarding which cells are staining.

Discretionary Revisions (which the author can choose to ignore)

None.

What next?: Accept after minor essential 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.