**Reviewer's report**

**Title:** Amiloride derivatives as potential therapeutic agents for type 2 diabetes: A randomized controlled study

**Version:** 1  **Date:** 16 September 2005

**Reviewer:** Ramesh R Bhonde

**Reviewer's report:**

1. Is the question posed by the authors new and well defined?
   Ans. Yes.

2. Are the methods appropriate and well described, and are sufficient details provided to replicate the work?
   Ans. Yes the methods are fine but some more details are required addressing following questions:
   a) Whether BSA has been added in KRBH buffer during insulin secretion assay?
   b) How many islets were taken during the insulin secretion assay?

3. Are the data sound and well controlled?
   Ans. Yes but I wish to know that whether the islet monolayer which is used 14 days after culture has insulin secretion capacity or not? As pH assessment is done on the monolayer while secretion assay is done on fresh islets, the functionality of the two should be compared before correlating the results.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
   Ans. Yes.

5. Are the discussion and conclusions well balanced and adequately supported by the data?
   Ans. Yes. But no biochemical parameter has been measured in vivo like effect of the treatment on blood glucose, serum insulin or glucose tolerance hence we are not fully satisfied how it will be used for type 2 diabetes therapy. I feel it will be useful in a combinatorial therapy and that part should be discussed.

6. Do the title and abstract accurately convey what has been found?
   Ans. Yes.

7. Is the writing acceptable?
   Ans. Yes.

**Comments:**

**Discretionary Revisions** (which are recommendations for improvement but which the author can choose to ignore)
None

**Minor Essential Revisions** (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
None

**Major Compulsory Revisions** (which the author must respond to before a decision on publication can
be reached
It has been claimed that in vivo treatment enhances the insulin secretion capacity of NON islets. Along with ex-vivo data they should provide some in vivo data such as glucose tolerance test, proving the claim.

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: Acceptable

Statistical review: No

Declaration of competing interests:
'I declare that I have no competing interests'