Reviewer's report

Title: Mammographic density and epithelial histopathologic markers

Version: 1 Date: 17 March 2009

Reviewer: Qamar Khan

Reviewer's report:

Introduction: The first sentence should state that the relative risk of highest density is compared to the lowest density group.

Line 4: Need to be more specific regarding how such knowledge may contribute to prevention.

Methods: It is not clear if the density measurements from the parent study were used or were obtained for this study specifically? If new measurements were taken, was there an agreement between the previously obtained measurements and those obtained from the current study?

Results:

2nd paragraph: Using the terms such as ‘substantial differences were seen’ seem misleading. Authors should try to use terms as although numerical differences were observed, they were not statistically significant.

The statement that most associations were not statistically significant implies that some were significant. Is this true?

The second paragraph gives the impression that these are true associations. Given the lack of statistical significance, as mentioned above, it should be stated that although there are numerical differences, they are not significant.

3rd paragraph: Is the breast size just a function of race? If this is true,

Discussion:

What markers the authors believe should be further studied as risk/response biomarkers. Is PR expression, given the numerical association with breast density a reasonable candidate? What markers should not be pursued? HER 2? Ki67, given the small number of women with positive staining?

I am not sure what the value of Fig 1 is? May be removed.

1: Yes
2: Yes
3: Yes
4: Yes: Some recommendations have been made above.
5: Conclusions need to be rewritten; It has to be more specific. Is TMA feasible or not for future studies? What hypotheses could be generated? Higher PR expression was not significant and no positive conclusion can be made such as ‘higher cell proliferation is present ……….’ Is PR expression a marker of
proliferation?

6. Yes

7: Yes

8: Abstract needs revision: Since the results were not significant. No claims of association can be made. Only numerical differences can be stated. In the conclusion of abstract again, no claims of association can be made. Rather than blanket statements as feasibility and problems, please be more specific. Also instead of saying hypotheses have been generated, please be more specific.

9: Yes

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests