



SDI FINAL EVALUATION FORM 1.1

PART 1:

Journal Name:	International Journal of Biochemistry Research & Review
Manuscript Number:	2013_IJBcRR_7590
Title of the Manuscript:	Comparison of Apo B and TG/HDL ratio with HOMA IR model to predict insulin resistance in patients with metabolic syndrome

PART 2:

FINAL EVALUATOR'S comments on revised paper (if any)	Authors' response to final evaluator's comments
The revised manuscript presented several improvements according to reviewers' comments, which turn it more adequate. However, the central aspects that merit attention was not discussed in the present version. Major: The correlation between two variables need to achieve an 'R-value' over 0.7, which means an 'R-squared' that predicts at least > 50% correlation between two variables. As the own authors shown in the present study, even that they got a significant 'p-value', this do not imply a significant correlation. In Figure 1 and 2, the R-values were 0.29 and 0.41, respectively, which predicts a R-squared of around only 8.6% and 16% correlation between both variables (HOMA-IRxTG/HDL and HOMA-IR/ApoB), respectively. By this reason, authors cannot support their conclusion based on that results. At the same point, the AUC-ROC must be performed to validate the hypothesis that ApoB, rather than TG/HDL predicts insulin resistance when compared to HOMA-IR. Authors affirm in their arguments to the reviewer that their objective is not to diagnose MS with this tool, and this is obvious since MS requires more than 3 clinic parameters to be altered. Even that the study been merely comparative, this must be methodologically correct, which means that the correlation must attend the statistic principles. Considering the cutt-off values for MS dignosis is gender-specific, authors should evaluate their data in a gender-specific manner. This may bring interesting results for them. Minors: Abstract and results sections is still poorly explored and the english speech need a native correction.	We are grateful to reviewer for all the efforts taken to improve this manuscript scientifically. We sincerely acknowledge and agree with the valuable and correct contributions made by the esteemed reviewer regarding the significance of R value. In our study we have compared the R square values of two variables such as TG/HDL ratio and Apo B and we report that Apo B shows nearly double the correlation to HOMA IR, thus proving its suitability as a better index of IR. If this is extended to larger population we may obtain greater R value. We agree that the ultimate confirmatory result should be based on emphasis of AUC for each variable when ROC is considered but this would mean studying a large population so that NPV and PPV can be decided taking different cut offs to construct ROC. With the sample size of this study ROC is not possible. For Metabolic syndrome diagnosis by NCEP ATP III criteria only Waist circumference and HDL are gender specific while other variables do not show gender specificity. If we have to isolate MS cases by the genders and study the effect of other variables such as the ones included in our study viz. TG/HDL-C ratio and Apo B, we need to enroll a very large population. Although we refer that this may bring out interesting observations. It is beyond the scope of the present study.