Title: Association between erythrocyte Na+K+-ATPase activity and some blood lipids in Type 1 diabetic patients from Lagos, Nigeria.

Authors:

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Author's response to reviews: see over
Response to reviewers’ comments

Reviewer 1: Thiery Coste

Title:
The word “in” has been added between lipid and type 1 in the title

Abstract
Na+K+-ATPase activity values between diabetic group and the control has been corrected to (0.38±0.08 vs. 0.59±0.07 uM Pi/mgprotein/h) as indicated by the reviewer as this values represent activities of digoxin sensitive enzyme between the two groups. Percentage difference values between the diabetic subgroups and control have been deleted as suggested by the reviewer.
The phrase “HDL-C association was found to” has been changed to “HDL-C association were found to”

Introduction
Second paragraph: The word “trasmenbrane” has been corrected to transmembrane. The compound sentence in the third paragraph has been revised accordingly and triacylglyceride has been change to triglycerides. The sodium pump enzyme has also been written correctly as Na+K+-ATPase throughout the manuscript.
Fifth paragraph: The phrase “for improved understanding” has been modified to read for a better understanding as suggested by the reviewer.

Results:
The title of Table 4 has been corrected and now reads “Table 4. Correlation analysis between total Na⁺K⁺ATPase activity and other parameters measured in the study group.”
Typographical errors for probability values have also been corrected (e.g. 0.0429 instead of 0.0043 and 0.0494 instead of 0.0049 as well as 0.018 instead of 0.0018 for TC, LDL‑C and TAG in the A1 diabetic subgroup).

Discussion
Pg 13.
The phrase “may also due” has been corrected to “may also be due”.

“in diabetes” has also been corrected to “in diabetic patients”

Pg 15. The phrase “NIDDM patients” has been re-written as type 2 diabetic patients with similar corrections made in other parts of the manuscript.

Reviewer 2 Muthuswamy Balasubramanyam

General
The reviewer’s concerns about the level of significant correlation between Na+K+-ATPase and some blood lipid parameters among diabetic subgroup with poor glycemic control (A1) have been addressed. We have identified some of the typographical and analysis errors in Table 4. This has been corrected as follows:
The r value of 0.00429 approximated to 0.0043 instead of 0.0429 was the correct correlation coefficient Obtained from the correlation analysis of data set of Na+K+-ATPase and total cholesterol (TC). Similarly, the r value between Na+K+-ATPase and LDL-C was 0.0049 instead of 0.049 and r = 0.038 instead of 0.048 was obtained for HDL-C-Na+K+-ATPase association. Na+K+-ATPase – TAG relationship yielded a r value of 0.0018 instead of 0.018 previously indicated in Table 4. Furthermore, the word “multivariate regression analysis” has been replaced by correlation analysis in all places of its occurrence in the manuscript.

The limitations of this study has highlighted by the reviewer were noted and used to reconcile the discussion of the work done. We actually randomized these limitations in our discussion instead of delineating them. For instance. that we did not determine HBAic and blood pressure levels in our cohort has been included (Pg 12)

Title:
The title has been corrected with the inclusion of “in” between blood lipids and type 1 diabetic patients. It now reads “Association between erythrocyte Na⁺K⁺-ATPase activity and some blood lipids in Type 1 diabetic patients from Lagos, Nigeria.”

Introduction
This has also been modified to improve its understanding as advised by the reviewer beginning from line 17 on page 3 of the manuscript. An example is indicated below.

Numerous experimental studies conducted streptozotocin-induced diabetic rats show that for instance, the delayed motor nerve conduction velocity, decreased nerve blood flow, degeneration of peripheral nerves, persistent hyperglycemia and other metabolic aberrations involve decrease nerve membrane Na⁺K⁺-ATPase [4, 7, 8].
Results
Table 4 has been corrected for wrong correlation coefficient values ($r$) as previously indicated. The title of the table has also been corrected. It now reads “Table 4. Correlation analysis between total Na$^+$K$^+$ATPase activity and other parameters measured in the study group.”

Discussion
The discussion has also been modified with the inclusion of blood pressure (Pg 12, line 11) as a cardiovascular risk factor that was not determined in this study and which serves as a limitation as previously indicated for HbAic (Pg 12 – 15).

We sincerely appreciate the various comments of the reviewers. Our observation of these concerns has enabled us to detect most of the typographical errors we made during the typesetting of the manuscript and allowed to persist even in our revised manuscript due to an oversight.

Our introduction has also been modified to improve the quality of our literature review and clarify previous studies made on the subject in experimental models.

We thank the editorial for ensuring the second review of this manuscript for a better outcome.

Iwalokun. B.A and Iwalokun, SO (Authors).