Reviewer's report

Title: Apolipoprotein L1, Income and Early Kidney Damage

Version: 1 Date: 5 October 2014

Reviewer: Jason Bonomo

Reviewer's report:

Major Concerns:

Tamrat et al. have investigated the interaction between income income, APOL1 G1/G2, and GFR in a small sample of African Americans who lack "established CKD" (105). This article suffers from numerous conceptual limitations which, in this reviewer's opinion, should preclude it from publication in any journal.

1. It has been appreciated (and accepted) that APOL1 is an ESKD progression gene, i.e., APOL1 is not associated with intermediate phenotypes. Why the authors are studying the relationship between APOL1 and eGFR/CKD - in a population without ESKD - is puzzling and does not contribute to the literature. A prior data proves this to be the case. Therefore, why perform the analyses in Tables 2, 3, & 4 when it is known the null hypothesis should be accepted ("income" aside)?

2. Power is not addressed in this manuscript. The small sample being studied limits the ability to detect true associations and increases the probability of identifying spurious associations. Thus, a power table is necessary to provide readers a more appropriate context of the p values provided.

3. Lines 184-192: The concept of stratifying already low income groups into a "high income" and "low income" group seems unnecessary. Why not use income as a continuous variable instead?

Minor Concerns:

1. Line 81: The authors have misinterpreted the results of the CRIC study. APOL1 is NOT associated with diabetic kidney disease. Rather, the study demonstrated that APOL1 is associated with progression to ESKD independent of hyperglycemia.

2. Lines 96-97: It would be beneficial to readers if these mechanisms could be described (in a sentence).

3. Line 236: the median of a dataset is a number, not a range.

4. Line 252: please report a P value.

5. Line 260: CI in text does not match that in the table
6. Line 262: please report all P values

7. Methods: Please report the LD (r² and D') between rs73885319 and rs60910145

**Level of interest:** An article of insufficient interest to warrant publication in a scientific/medical journal

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests