Reviewers report

Title: Circulating miR-30a, miR-126 and let-7b as biomarker for ischemic stroke in humans

Version: 1 Date: 22 September 2013

Reviewer: Reuben Saba

Reviewers report:

General comments about the manuscript:
This is a timely study due to the great potential of utilizing miRNAs as blood biomarkers for numerous human diseases and disorders. At present, there are no blood biomarkers or tests for ischemic stroke so this study goes a long way in addressing this need in the field, although only at a very preliminary stage as more work with larger cohorts is needed. This is also a well crafted study with appropriate number of samples for each time point post ischemic stroke and also an equally well balanced number of controls. Moreover, the authors went to great lengths to prevent other factors from compromising their study cohorts through the proper assessment of a large number of potentially contributing factors. The methodology employed in this study was appropriate for the number of miRNAs that were examined.

Major compulsory revisions:
1. The discussion section of the manuscript was somewhat difficult to read as the quality of the English was often poor, relative to other sections of the manuscript. Therefore, the authors should pay careful attention to the sentences in this section and also re-write some of the sentences to make them more coherent. This was noted throughout this particular section and not just pertinent to a single part of the discussion.
2. The discussion should be fully fleshed out. I found it too brief:
   a. The authors should provide an explanation about why these miRNA may be found in the plasma rather than just reporting as just being there in differential abundance. How does this apply to other miRNAs that may be found in the serum. Have the authors looked at the expression of other miRNAs, for example have they employed a miRNA screen, rather than relying on several miRNAs that have been previously reported. These are some points that need to be clearly addressed before publication.
   b. Moreover, miRNAs possess cognate target genes, can the authors speculate on some target genes of these miRNAs and whether they contribute to ischemia. If not, is it relevant to consider target genes of miRNAs when they are in serum? Overall, I found the discussion to be very brief without proper explanation of the results within the context of ischemia. This needs to be clearly addressed.

Discretionary Revisions:
1. I found the tables sufficient to summarize the results of the manuscript. Therefore, I question the need for the figures which appear to be redundant. The figures may be more relevant in the supplementary data, unless the authors can justify their importance in the manuscript).

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

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

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests