



**SDI Review Form 1.6**

**PART 1:**

|                          |                                                                                                                                                |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Journal Name:            | <a href="#">International Journal of TROPICAL DISEASE &amp; Health</a>                                                                         |
| Manuscript Number:       | <b>MS: 2012_IJTDH_2948</b>                                                                                                                     |
| Title of the Manuscript: | <b>Sickle Cell Trait (HbAS) is Associated with Increased Expression of Erythrocyte Complement Regulatory Proteins CR1 and CD55 in Children</b> |

**General guideline for Peer Review process is available in this link:**

**(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)**

- This form has total 9 parts. Kindly note that you should use all the parts of this review form.



**SDI Review Form 1.6**

**PART 2: Review Comments**

|                                            | Reviewer's comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here) |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b><u>Compulsory</u></b> REVISION comments | <p><b>1. Overall, a carefully conducted study comparing complement receptor 1 (CR1) and accelerating factor (CD55) levels in HbAS and Hb AA patients. The experimental methods used were appropriate and ethical.</b></p> <p><b>2. The background information, attempting to explain the significance of CR1 and CD 55 levels to the severity of malaria infection, is difficult to follow and at best CONFUSING!</b></p> <p><b>Put simply, do low levels of CR1 and CD55 NECESSARILY mean that the patient is at a higher risk of severe malaria infection?</b></p> <p><b>Certain paragraphs in the lengthy background section appear to offer contradictory answers to that fundamental question. That needs clarification. For instance, if low CRI on uninfected erythrocyte cells results in "less resetting leading to obstruction of blood flow and hence cerebral malaria" (lines 79,80) then can it be said that observed higher CR1 numbers in HbAS individuals translate into protection "against severe manifestations of malaria" (lines 384,385)?</b></p> |                                                                                                                                                                               |



**SDI Review Form 1.6**

3. The background section is rather too long and can be shortened to about a page and simplified to make it understandable to a wider audience. You must state, in unambiguous way, the net relationship between CR1 and CD55 levels and malaria severity.
4. Variable matching ratios (1:1 and 1:2) were used – provide a justification for its use.
5. My reading seems to suggest you performed INDIVIDUAL matching rather than FREQUENCY (or group) matching. If that is the case, then you need to perform MATCHED analysis. This can be done using the logistic regression or Mantel-Haenszel methods. My personal experience is that often the results from such matched analyses are NO different from the unmatched analyses but they are needed for statistical purity!
6. Although your numbers are small, it will be helpful to provide results adjusting for blood type (group O vrs others, since frequency of resetting is lower in patients with Group O blood group – line 81).



**SDI Review Form 1.6**

|                                         |                                              |  |
|-----------------------------------------|----------------------------------------------|--|
| <b><u>Minor</u></b> REVISION comments   |                                              |  |
|                                         | Line 90 – change “corrected” to “correlated” |  |
| <b><u>Optional/General</u></b> comments |                                              |  |

**Reviewer Details:**

|                                  |                                                                                                                                             |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Name:                            | <b>Yaw Amoateng Adjepong</b>                                                                                                                |
| Department, University & Country | <b>Pulmonary and Critical Care, Bridgeport Hospital and Yale University School of Medicine, 267 Grant Street, Bridgeport, CT 06610, USA</b> |