Reviewer’s report

Title: Antibody responses to merozoite antigens after natural Plasmodium falciparum infection: kinetics and longevity in absence of re-exposure

Version: 0 Date: 24 Jul 2018

Reviewer: Kwadwo Koram

Reviewer's report:

The authors sought to investigate the dynamics of antibody responses to P. falciparum merozoite antigens (whole schizont extract and 8 vaccine candidates) using a cohort of individuals who had had a single infection from P. falciparum.

The choice of study group is innovative and appropriate to answer the questions raised because post the primary infection the individuals were seen in Sweden where there is very minimal risk of re-infection. While the numbers involved may be on the low side, this group is what was available to the investigators and should be acceptable.

However, the statement on Pg 8 Ln 154 needs to be clarified. Why were 3 patients with previous documented infections excluded from the study. Since the follow up period was long, there should be a statement to clearly state that there was no further travel to an endemic area during this period (to exclude the possibility of re-infection).

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Not applicable

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review
Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare I have no competing interests

Statement on potential review bias
Please complete a statement on potential review bias, considering the following questions:

1. Did you co-author any publication with an author of this manuscript in the last 5 years?

2. Are you currently or recently affiliated at the same institution as an author of this manuscript?

If you can answer no to all of the above, write 'I declare that I did not publish with these authors in the last 5 years and also meet the affiliation criteria”. If your reply is yes to any, please give details below.

I have published with Michael T. White of Imperial College, London, a similar analysis of antibody responses to malaria parasites in the Journal of Infectious Diseases in 2014. My
suspicion is that the 2nd author on the current manuscript is most probably the same author. I do not have any institutional affiliation with any of the authors.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal