Reviewer’s report

Title: Recent Advances in Triple Negative Breast Cancer Treatment: The Immunotherapy Era

Version: 0 Date: 17 Mar 2019

Reviewer: Luis De La Cruz-Merino

Reviewer’s report:

This is a comprehensive review about the main data released on immunotherapy related to TNBC in the last few years. Some commentaries to consider:

* When discussing the results of Impassion130, a more in depth analysis of the PD-L1 biomarker should be made. It is certainly arguable that the latter would be a robust biomarker for immunotherapy in most of the tumors, but, in the case of this study analysis was done on immune cells of the tumor microenvironment, what is up to now an uncommon and not clearly reliable way to analyze it. Although slightly commented by the authors I would recommend to go more in detail with this crucial point.

* Again related to Impassion130, results of the biomarker study communicated at SABCS 2018 (#GS1-04. Emens LA) are extremely interesting and seem to shed light about the potential role of immune biomarkers in TNBC. In this analysis, patients with CD8+ tumors derived clinical benefit only if their tumors were PD-L1 IC+, the same happens with TILs. It would be desirable to mention the results of this study.

* Results of a biomarker analysis of the neoadjuvant trial Keynote173 trial were also shown at SABCS 2018 (P3-10-09). In this case higher density of pretreatment sTILs and PD-L1 CPS is associated with higher pCR rates. These results should be also mentioned and a discussion about the eventual role of CPS to analyze PD-L1 could be appropriate.

This work represents an excellent overview about the situation of clinical and translational research with modern immunotherapy in TNBC

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 that 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 declare that I did not publish with these authors in the last 5 years and also meet the affiliation criteria

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/](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