Reviewer’s report

Title: Mass cytometry analysis reveals a distinct immune environment in peritoneal fluid in endometriosis: a characterisation study

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Reviewer: Caterina De Carolis

Reviewer's report:

Guo et al present their mass cytometry study to characterize the immune environment in the peritoneal fluid of patients afflicted with endometriosis. Endometriosis has a high prevalence and is associated with pain and discomfort and in addition is linked to infertility. There is strong evidence that immune dysfunction is a key factor in the disease. Thus, a comprehensive understanding of the immune landscape in this disease would certainly be an important step toward the development of more effective treatment regimens. The paper is original and the control population was inserted at various stages of the menstrual cycle, as normal. Women with endometriosis expressed a decreased activity of PF CD69+ T cells when compared to blood counterpart. Moreover, by comparing CD69+ and CD69- populations, CD69 defines distinct phenotypes across peritoneal T cell lineages, indicating that both innate and adaptive immunity play roles during endometriosis.

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?
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No

Are the conclusions drawn adequately supported by the data shown?
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Yes

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I am able to assess the statistics

Quality of written English
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Acceptable

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