Review of: "Prediction of molecular markers of bovine mastitis by meta-analysis of differentially expressed genes using combined p-value and robust rank aggregation"

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Potential competing interests: The author(s) declared that no potential competing interests exist.

General comments

In this manuscript, the authors analysed 5 microarray datasets derived from mammary epithelial cell (MEC) mastitis models in GEO repository using meta-analysis to predict the molecular markers of bovine mastitis caused by *E. coli* and *S. aureus*. This is an interesting practice and the results are informative.

Special comments

1. The title. Mastitis can be caused by many factors, such as bacterial infections, metabolic disorder and poor management, and both epithelial and immune cells play important roles in it. Therefore, the title of this manuscript should be more specific. I suggest that the authors include MEC and the bacteria in the title.

2. The authors used 5 datasets downloaded from GEO (GSE24560, GSE25413, GSE32186, GSE24560 and GSE25413). All original studies used MECs inoculated with heat inactivated *E. coli* and *S. aureus*. In each study, there was a clear comparison of the gene expression between the two bacterial groups and the top commonly differentially expressed genes could be the potential molecular markers for the mastitis caused by the two bacterial species. Comparisons within a same study (intra-study) may generate more accurate results than those between the studies (inter-study). In the present study, in order to fit the principle of meta- analysis, the authors used three datasets of *E. coli* and other two datasets of *S. aureus* (See manuscript 2.1 Datasets) and the comparisons were based on meta-analysis. I suggest that the authors compare their results with those derived from comparison between the two bacterial groups within each study/dataset. This will verify the reliability of their results derived from meta-analysis.

3. There are a few typographical errors in the manuscript. As there are no page or line number in this draft, I suggest that the authors check throughout the manuscript and correct them.

4. Table 2. After robust rank aggregation, most of the DEGs had log2 FC < 1. Was there any cut off criterion for FC?