Reviewer's report

Title: Bcl-2 associated athanogene 5 (Bag5) is overexpressed in prostate cancer and inhibits ER-stress induced apoptosis

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Reviewer: Alessandra Rosati

Reviewer's report:

Manuscript by Bruchmann A. et al describes a novel pathway for UPR response in prostate cancer cells involving the co-chaperone BAG5 protein. Authors show that BAG5 protein and mRNA is overexpressed in human prostate cancer samples in respect to benign prostate hyperplasias or benign surrounding tumors areas. They also demonstrate that under a specific stressful stimulus BAG5 protein accumulates in the ER where it interacts via the c-terminal BAG domain to GRP78/BiP resulting in a modulation of its activity. Finally, authors demonstrate that BAG5 levels have an impact on UPR in prostate cancer cells.

Minor Essential Revisions

1) A brief description of the scoring method for the IHC scoring methodology should be given in Material and Methods section. Furthermore, in the results section, median and 95% CI values for the analyzed groups should be given for RNA levels and for IHC scores showed in Figure 1.
2) Panels in Figure 1 are not correctly marked and described in the Results section.
3) Reference for cell lines used for the experiment in Fig.1 E is missing.
4) Fluorescence images displayed in Fig. 2D should be presented with a higher resolution
5) In Figure 5 panels B, C, D and E units on y axes are missing, furthermore graphs on the y axes have not the same style and size.
6) Typing mistakes have to be corrected throughout the text of the manuscript.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests