Author’s response to reviews

Title: FAM3B/PANDER inhibits cell death and increases prostate tumor growth by modulating the expression of Bcl-2 and Bcl-XL cell survival genes

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Xiaopei Cao (Reviewer 2):

1) The proof of PANDER protein expression in the cell lines and tumor tissue is necessary. Although mRNA may show expression, it may not translate to protein. Please attach the IHC of the tumor tissues.

R: As explained previously, FAM3B protein expression was measured by western blot in 293T-FAM3B cells (Figure 2C) and DU145-FAM3B cells (Figure 3A), but, unfortunately, we could not check for the expression of FAM3B by western blot in LnCAP and PC-3 prostate cell lines because the anti-FAM3B antibody is currently failing to recognize FAM3B protein by WB or IHC. We should receive a new batch of antibody in approximately 90 days due to the slowness of the Brazilian customs system.
We agree that mRNA may not translate to protein; however, since all experiments were performed with DU145 cells, and FAM3B overexpression was detected in these cells at protein level, we do not consider it indispensable to detect FAM3B protein by WB in the other cell lines.

On the other hand, as suggested by the reviewer, we have attached the immunohistochemistry assay that was done previously, in the manuscript (See revised manuscript, Figure legends, line 794, page 34), which showed the expression of FAM3B protein in tumor xenograft tissues. We did not add this IHC because of its low quality.

2) The evidence for the FAM3B impact on metastasis of prostate cancer is insufficient.

In agreement with the reviewer, we have removed all fragments of Discussion that are suggesting a putative participation of FAM3B in the induction of metastasis in prostate tumors derived from the DU145 cell line. In addition, we removed Supplementary Figure S2 from the article. In this figure, the image of HE analysis shows micrometastasis uniquely in the lungs of mice xenotransplanted with DU145/FAM3B cells and absence of micrometastasis in mice xenotransplanted with DU145-control cells.