Author's response to reviews

Title: Controlled delivery of BID protein fused with TAT peptide sensitizes cancer cells to apoptosis.

Authors:

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Author's response to reviews: see over
Dear Sir/Madam,

Please find the enclosed manuscript “Controlled delivery of BID protein fused with TAT peptide sensitizes cancer cells to apoptosis” (authors: Emilia Orzechowska, Ewa Kozlowska, Alicja Czubaty, Piotr Kozlowski, Krzysztof Staron and Joanna Trzcinska-Danielewicz) which we would like to publish in the BMC Cancer.

The submitted paper shows that BID protein fused with TAT cell penetrating peptide may be effectively delivered to cancer cells in controlled manner and sensitize cancer cells to apoptosis induced by TRAIL and camptothecin. The main innovation presented in the paper is that BID is delivered to cancer cells as a ready-made, recombinant protein. This allows to control the amount of protein supplied by a suitably chosen dose of protein and time of the treatment. As a result, recombinant BID itself indicates minimal toxicity towards cells, only sensitizing them on anticancer drugs inducing apoptosis. The solution presented in the paper provides two benefits: (i) BID fused with a cell penetrating peptide combined with anticancer drugs tested in this work, especially with TRAIL, has therapeutic potential for cancer treatment. (ii) The solution may be used to examine efficacy of the treatment with BID combined with anticancer drugs not tested in this work.

We submit this manuscript for the second time because the previous version did not contain line numbering.

Yours sincerely,

Joanna Trzcinska-Danielewicz