

## ANSWERING REVIEWERS

March 2, 2016

Dear Editor:

Please find enclosed the edited manuscript in Word format (file name: ESPS-24263.doc).

**Title:** CdSe/ZnS quantum dots induce photodynamic effects and cytotoxicity in pancreatic cancer cells

**Authors:** Si-Jia He, Jia Cao, Yong-Sheng Li, Jia-Chun Yang, Min Zhou, Chun-Ying Qu, Yi Zhang, Feng Shen, Ying Chen, Ming-Ming Li, Lei-Ming Xu

**Name of Journal:** *World Journal of Gastroenterology*

**ESPS Manuscript No:** 24263

The manuscript has been improved according to the suggestions of reviewers:

1 Format has been updated

2 Revision has been made according to the suggestions of the reviewers:

(1) **Comments from Reviewer (#00753027):** Only one cell line was studied in the report. It is unclear whether the examined effects are cell-specific.

**Response:** Thanks for your comment. Initially, we chose three pancreatic cancer cell lines (SW1990, PANC-1, and MiaPaCa-2). However, PANC-1 and MiaCaPa-2 seemed to be more sensitive than SW1990 cells to QDs or QDs-induced PDT. In this study, we focus on the effects of QDs-induced

PDT on pancreatic cancer cells, we thus choose SW1990 cells for the experiment.

(2). **Comments from Reviewer:** It is unclear whether the light dose (10, 20, 30 J/cm<sup>2</sup>) alone has any cytotoxicity to the SW1990 cells. In Figure 2, this control should be done.

**Response:** Thanks for the suggestions. We have added light dose alone as control, which is shown in red line in Figure 2C.

(3). **Comments from Reviewer:** In Figure 6, the relative ROS levels quantified by flowcytometry should be shown.

**Response:** We performed flowcytometry to quantify the relative ROS levels as shown in Figure 6.

(4). **Comments from Reviewer:** To demonstrate the role of ROS in the cytotoxicity, antioxidants should be used to test whether the antioxidants could prevent the cytotoxicity.

**Response:** We used a conventional antioxidant (NAC) to confirm the role of ROS in the cytotoxicity. As shown in Figure 6, the cell viability of SW1990 increased by pre-incubation with NAC before treatment.

(5). **Comments from Reviewer:** To demonstrate the role of apoptosis in the cytotoxicity, the caspase inhibitor should be used to examine whether the inhibitor could prevent the cell death.

**Response:** To determine the role of apoptosis in the cytotoxicity, we used Z-VAD-FMK as caspase inhibitor and examined its effects on the prevention of QDs-induced cell death.

**3 References and typesetting were corrected.**

Thank you again for publishing our manuscript in the *World Journal of Gastroenterology*.

Sincerely yours,

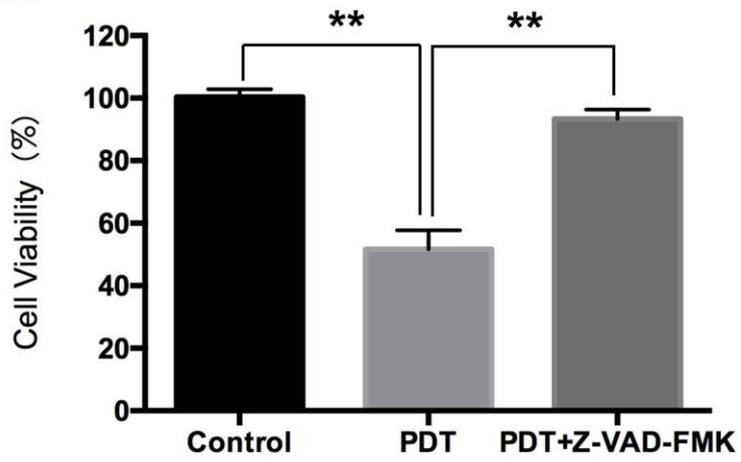
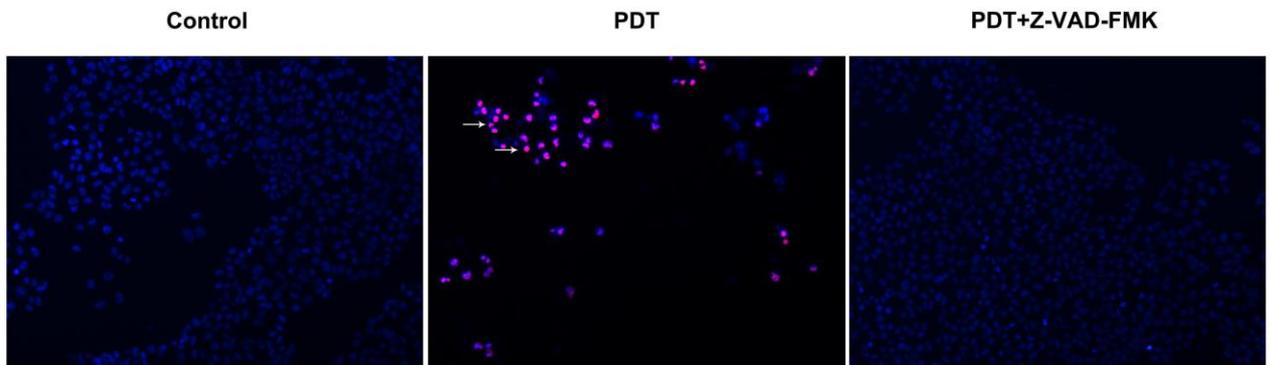
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