

ESPS Peer-review Report

Name of Journal: World Journal of Immunology

ESPS Manuscript NO: 6434

Title: Immune response after photodynamic therapy increases anti-cancer and anti-bacterial effects

Reviewer code: 00503062

Science editor: Song, Xiu-Xia

Date sent for review: 2013-10-21 11:29

Date reviewed: 2013-10-25 09:51

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A (Excellent)	<input type="checkbox"/> Grade A: Priority Publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B (Very good)	<input type="checkbox"/> Grade B: minor language polishing	<input type="checkbox"/> Existed	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C (Good)	<input type="checkbox"/> Grade C: a great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D (Fair)	<input type="checkbox"/> Grade D: rejected	BPG Search:	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E (Poor)		<input type="checkbox"/> Existed	<input type="checkbox"/> Major revision
		<input type="checkbox"/> No records	

COMMENTS TO AUTHORS

This paper reviewed innate and adaptive immune responses induced by photodynamic therapy for cancer and infection. The manuscript covers broad aspects of immunological effects of PDT and is well written although the content is similar to that of Mroz et al. (ref. 100). There are several points to be improved. First of all, page number should be added to each page. Authors stated that this review focus on immune responses induced by PDT against pathogens as well as tumors (page 2, lines 3-5). However, concerning immune responses by PDT against pathogens, authors focused only on the innate immune response against bacterial arthritis (Tanaka et al.; ref. 9). Authors mentioned that PDT is capable of killing a large variety of pathogens such as bacteria, parasitic protozoa, fungi, yeasts and viruses (page 9, lines 7, 8). Refer the papers describing the PDT effects on parasitic protozoa, fungi, yeast and viruses, not only on bacteria. In addition, the description of the difference of PDT effects on cancer and bacterial infection at page 10, lines 13-22 is not clear. Is there no evidence that PDT induces B cell-mediated adaptive immune response against bacterial infection? There are several grammatical and nongrammatical errors to be revised through the manuscript. Authors should check and correct them. They are listed below. Page 2, line 2 (Core Tip section). "procedure" reads "procedures". Page 2, line 14 (Abstract section). "is capable to affect" reads "is capable of affecting". The usage of "is capable to" is grammatically wrong. Page 2, line 18. Check the usage of "able to". Page 2, line 2 from the bottom (Key Words). "Photodynamic therapy" reads "photodynamic therapy". Page 3, lines 19, 23. Authors use "Balb/c" here, but use "BALB/c" in page 6, line 10 from the bottom. Use one style through the manuscript. Page 4, lines 3-6. The sentence "DAMPs are..." is too long. Page 4, line 2 from the bottom. "the massive infiltration to the tumor by the immune cells" should be "massive infiltration of the immune cells to the tumor". Page 5, line 18.

Check the usage of “capable of”. Page 5, line 21. “?” should be a period “.”. Page 5, line 7 from the bottom. “CTL” should be spelled out first. Page 5 line 6 from the bottom. “DC” reads “DCs”. Page 5 line 1 from the bottom. “CD8+ cells” reads “CD8+ T cells”. Page 6 line 1. “in absence” reads “in the absence”. Page 6 lines 8, 9. Authors used (i), (ii), (iii) here, but used (1), (2), (3) at lines 17, 20, 21 of the same page. Use one style. Page 6, line 11 from the bottom. “wild type” reads “wild-type”. Page 6, line 5 from the bottom. Check the usage of “able to”. Page 7, line 23. “recognizes” reads “recognize”. Page 7, line 4. “tat” reads “that”. Page 8, line 7. “evidences” reads “evidence”. Page 8, line 24. “MHCI” should be spelled out when it appears for the first time (page 5, line 10 from the bottom). Page 9, line 2. Refer the paper or review that described “PDT in the field of microbiology over 100 years ago”. Page 9, line 7. “is capable to kill” reads “is capable of killing”. Page 10, line 4. “such effect” reads “such an effect”. Page 10, line 15. “is capable to stimulate” reads “is capable of stimulating”. Page 10, line 24. “is capable to pronouncedly activate” reads “is capable of pronouncedly activating”. Page 10, line 6 from the bottom. “, that” reads “, which”. The sentence is too long. Table 1. “Treg” should be “Treg (T regulatory cells)”. Figure 1. The fonts of alpha in TNF-alpha and beta in IL-1beta are too large. “hv” should be “h nu (Greek letter)”. “PMNS” should be “PMN” or “PMNs”. Figure 2. “hv” should be “h nu (Greek letter)”. References. Check the abbreviated form of journal names. For example, the journal name of your paper (ref. 72) should be “Br J Cancer” instead of “BJC”.

ESPS Peer-review Report

Name of Journal: World Journal of Immunology

ESPS Manuscript NO: 6434

Title: Immune response after photodynamic therapy increases anti-cancer and anti-bacterial effects

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CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A (Excellent)	<input type="checkbox"/> Grade A: Priority Publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B (Very good)	<input type="checkbox"/> Grade B: minor language polishing	<input type="checkbox"/> Existed	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C (Good)	<input type="checkbox"/> Grade C: a great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D (Fair)	<input type="checkbox"/> Grade D: rejected	BPG Search:	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E (Poor)		<input type="checkbox"/> Existed	<input type="checkbox"/> Major revision
		<input type="checkbox"/> No records	

COMMENTS TO AUTHORS

General comments 1. Side effects of PDT (photodynamic therapy) appeared to be underestimated. 2. Erroneous sentences and irrelevant information are found throughout the text. Major comments 1. The manuscript should have focused more on 'cellular and molecular mechanisms' on the induction of damage-associated molecular patterns (DAMPs) and cell death-associated molecular patterns (CDAMPs) by PDT. 2. PDT can cause the cell death not only on tumor cells, but also on normal cells including immune cells that could have caused the cancerous or immune-compromised conditions. Furthermore, the inhibition of Treg by PDT have potential to induce autoimmune disease. Authors should describe these impact (pros and cons) with proper references. 3. Type of light and wavelength, intensity are important factors for PDT, and therefore Table(s) to compare would help the readers of WJL. 4. Future prospecting and implication including clinical trials should be covered. 5. The section 'PDT for infections' and 'Immune responses in anti-bacterial PDT' are not informative and should be re-written. Minor comments 1. Non-cytokine reactants, such as serum amyloid P components (SAP), mannose-binding lectin A (MBL-A) and C-reactive protein, should be explained in-depth. 2. It would be better briefly explained a photo sensitizer (PS). 3. Common features of Treg should be summarized into Table or Figure format would be helpful. 4. Compare and contrast the procedures and types of PDT in Table format would be helpful. 5. Detailed explanation on photo sensitizer (PS) should be well described. 6. There are many references mentioned are missing. 7. Following references should be included; - Kalluru P et al. 2013. Photosensitization of Singlet Oxygen and In vivo Photodynamic Therapeutic Effects Mediated by PEGylated W18 O49 Nanowires. Angew Chem Int Ed Engl. 2013 Oct 18 - Kamkaew A and Burgess K. 2013. Double-Targeting Using a TrkC Ligand Conjugated to Dipyrrometheneboron Difluoride (BODIPY) Based Photodynamic Therapy



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ESPS Peer-review Report

Name of Journal: World Journal of Immunology

ESPS Manuscript NO: 6434

Title: Immune response after photodynamic therapy increases anti-cancer and anti-bacterial effects

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CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input checked="" type="checkbox"/> Grade A (Excellent)	<input checked="" type="checkbox"/> Grade A: Priority Publishing	Google Search:	<input checked="" type="checkbox"/> Accept
<input type="checkbox"/> Grade B (Very good)	<input type="checkbox"/> Grade B: minor language polishing	<input type="checkbox"/> Existed	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C (Good)	<input type="checkbox"/> Grade C: a great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D (Fair)	<input type="checkbox"/> Grade D: rejected	<input type="checkbox"/> Existed	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E (Poor)		<input type="checkbox"/> No records	<input type="checkbox"/> Major revision

COMMENTS TO AUTHORS

This manuscript reviewed anti-bacterial and anti-cancer effects after PTD in the context of various aspect of immune response such as innate immunity, adaptive immunity, TA, Treg, and infection control. This is very informative: it covers basic information and suggest clinical implication of PTD. Therefore, I recommend to accept the manuscript.