



SDI Review Form 1.6

PART 1:

Journal Name:	<u>British Journal of Pharmaceutical Research</u>
Manuscript Number:	2013_BJPR_4574
Title of the Manuscript:	Block Copolymer Crosslinked Nanoassemblies Co-entrapping Acridine Yellow and Doxorubicin for Cancer Theranostics
Type of the Article	Research paper

General guideline for Peer Review process is available in this link:

<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>

- This form has total 7 parts. Kindly note that you should use all the parts of this review form.



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PART 2: Review Comments

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Compulsory REVISION comments	<p>In their manuscript, Bae and coworkers described the preparation and application of nanoassemblies for combination delivery of imaging and therapeutic agents to tumors. The poly(ethylene glycol)-b-poly(aspartate) block copolymer with low cytotoxicity was crosslinked by a fluorescent dye acridine yellow. The crosslinked nanoassemblies were used as nanocarriers for the delivery of anticancer drug doxorubicin (DOX). The experimental results showed that the dye-crosslinked nanocarriers with DOX could kill cancer cells as effectively as free DOX, and enhance the intracellular uptake in vitro and tumor accumulation ex vivo. I recommend it for publication in British Journal of Pharmaceutical Research after these questions are addressed.</p> <ol style="list-style-type: none"> 1. Page 2, line 80: "N,N'-Diisopropylcarbodiimide": N,N'-diisopropylcarbodiimide; "N-Hydroxysuccinimide": N-hydroxysuccinimide. 2. Page 2, line 81: "Dimethylaminopyridine": dimethylaminopyridine. 3. Page 3, lines 101-103: "The purified PEG-ASP was reacted with AY by adjusting the molar ratio between the aspartate groups of PEG-ASP and amino groups of AY (2:1) for a 50% crosslinking yield." Please explain why this specific ratio (50%) was chosen. 4. Page 3, lines 108-111: "DOX was entrapped in 	



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	<p>AY-CNAs in deionized water through the ionic interaction between the amino group of DOX and carboxyl groups of AY-CNAs, following the method previously reported.” Please give the reference.</p> <p>5. Page 5, line 179: “Gel permeation chromatography (GPC) analysis in Figure 2 shows.....”. As mentioned in this manuscript, the poly(ethylene glycol)-b-poly(aspartate) block copolymer was crosslinked by acridine yellow. GPC measurements are suitable for linear polymers, not for branched or crosslinked polymers. GPC-MALLS (multi-angle laser light scattering) measurements should be carried out.</p> <p>6. Please explain why the fluorescence quenching could be avoided in this drug delivery system.</p> <p>7. Page 6, line 209: “3.2 Intracellular uptake profile”. The flow cytometry analysis should be performed.</p> <p>8. How about the pharmacokinetics of this delivery system?</p>	
<p>Minor REVISION comments</p>		
<p>Optional/General comments</p>		

Note: Anonymous Reviewer