



SDI Review Form 1.6

PART 1:

Journal Name:	International Journal of Biochemistry Research & Review
Manuscript Number:	MS: 2013_IJBcRR_3268
Title of the Manuscript:	Structural Mapping of Inhibitor Binding Sites on P-glycoprotein: Mechanism of Inhibition of P-glycoprotein by Herbal Isoflavones.

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- This form has total 9 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>
<u>Compulsory</u> REVISION comments	1 In the present work authors analyze binding of isoflavones to Pgp only. However they often address BCRP in the text what has no justification for this paper in its present form. Also direct comparisons made between binding of isoflavones to Pgp and BCRP are unjustified. 2 Introduction is too general. Pgp and BCRP are not the only transporters engaged in MDR. Authors seem to forget completely about MRP protein family. Interaction of isoflavones with MRP1 (isoflavones are frequently its strong inhibitors) should be addressed. 3 The paper completely lacks Discussion sections. The results obtained by the authors should be discussed and compared with the results previously obtained by other groups. 4 The paper is, in parts, repetitive. Section 2.1 is a repeats the information from the Introductions. Also the description of the existing crystal structures of Pgp are given twice (introduction and Section 3.1) 5 Table 1 requires more informative caption. What is a docking score? It is nowhere explained. Why are binding parameters obtained for Pgp compared to pIC50 values obtained by other group for BCRP? 6 The terms "top" and "bottom" of the channel are not well defined (Fig. 3 and Conclusions)	1. Discussion and comparison with BCRP has been removed as suggested. 2. Introduction has been rewritten and references have been updated. A comparison with MRP1 has been added in section 3.5. 3. Discussion part also been rewritten. More comparison with substrate and inhibitor molecules has been introduced. 4. Repetition has been removed. 5. Table1 caption has been changed. More information has been added to Table 1. Comparison with BCRP has been removed. Docking score has been defined in section 3.3 6. The words top and bottom have been replaced by "cytosolic side" and "extracellular side" in the text.
<u>Minor</u> REVISION comments	- numerous grammatical errors to be corrected	-major part of the manuscript has been rewritten.



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<u>Optional/General</u> comments		
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