

## PEER-REVIEW REPORT

**Name of journal:** *World Journal of Clinical Oncology*

**Manuscript NO:** 86498

**Title:** Advances in drug resistance of triple negative breast cancer caused by pregnane X receptor

**Provenance and peer review:** Invited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 00069774

**Position:** Editorial Board

**Academic degree:** PhD

**Professional title:** Associate Professor

**Reviewer's Country/Territory:** Thailand

**Author's Country/Territory:** China

**Manuscript submission date:** 2023-06-21

**Reviewer chosen by:** Geng-Long Liu

**Reviewer accepted review:** 2023-07-21 04:22

**Reviewer performed review:** 2023-07-30 04:31

**Review time:** 9 Days

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input checked="" type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
Creativity or innovation of this manuscript	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input checked="" type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation

<b>Scientific significance of the conclusion in this manuscript</b>	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input checked="" type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
<b>Language quality</b>	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

## SPECIFIC COMMENTS TO AUTHORS

Manuscript describes the classical role of PXR in regulation of drug metabolizing enzymes phase 1, 2, and phase 3 drug transporters and the association with the metabolism and transport of chemotherapeutic drugs. The major drug metabolizing enzymes and transporters with sufficient evidences linked to chemotherapeutic resistance should be tabulated for a summary to shorten the narrative. Many important roles of PXR were not included in the manuscript as it highly relates to the manuscript title. This includes regulation of PXR and function of PXR independence of drug metabolism. Regulation of PXR is very important in that several chemicals and inflammatory mediators which likely occur in many cancers can regulate expression of PXR and PXR-regulated genes. PXR also acts independence of drug metabolism in regulation of various processes for instances, apoptosis, cell cycle progression and inflammation via p53, p21, NF-kB, STAT3. Moreover, many above effects can be tissue specific in that PXR acts differently in various tissues. These two aspects should be included in the manuscript.

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**Peer-review model:** Single blind

**Reviewer's code:** 00505473

**Position:** Peer Reviewer

**Academic degree:** PhD

**Professional title:** Head

**Reviewer's Country/Territory:** India

**Author's Country/Territory:** China

**Manuscript submission date:** 2023-06-21

**Reviewer chosen by:** Geng-Long Liu

**Reviewer accepted review:** 2023-07-06 13:54

**Reviewer performed review:** 2023-08-02 20:23

**Review time:** 27 Days and 6 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

<b>Peer-reviewer statements</b>	Peer-Review: [ <input checked="" type="radio"/> ] Anonymous [ <input type="radio"/> ] Onymous
	Conflicts-of-Interest: [ <input type="radio"/> ] Yes [ <input checked="" type="radio"/> ] No

## **SPECIFIC COMMENTS TO AUTHORS**

In this review, the therapeutic importance of pregnane X receptor (PXR) in TNBC was discussed. Following comments can be made: 1.The authors have discussed the three phases of the chemotherapy drug resistance mechanism caused by PXR in general (Figure-1). However, authors have superficially discussed the alterations of PXR regulated genes associated with the three phases of drug metabolism in TNBC. The discussion should be made in detail with diagrammatic representation for better understanding of the role of PXR regulating genes in drug resistance in TNBC. This should be in concordance of title of the review. 2.The conclusion of the review should be made in accordance of the discussion above.