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ESPS Peer-review Report
Name of Journal: World Journal of Gastroenterology
ESPS Manuscript NO: 5102
Title: Anti-microRNA-221 sensitizes human colorectal carcinoma cells to radiation by targeting PTEN
Reviewer code: 00068903
Science editor: Qi, Yuan
Date sent for review: 2013-08-15 14:19
Date reviewed: 2013-08-20 16:49

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

COMMENTS TO AUTHORS

This manuscript describes up- and downregulation of miR-221 in CaCo cells by applying pre-miR-221 and anti-miR-221, respectively, and a concomittant inverse regulation of the tumor suppressor PTEN protein. The authors found CaCo cells treated with anti-mir-221 to become radiosensitive. Moreover, enhanced susceptibility to radiation could be reverted by a pretreatment with anti-PTEN siRNA knocking down PTEN expression. The authors suppose miR-221-mediated regulation of PTEN to be a pathway conveying radiosensitivity. They thus suggest considering the regulation of miR-221 as a therapeutic approach for rendering CRC cells radiosensitive. This study appears to be well-designed and well-conducted. It elaborates a regulatory pathway in a single cell line of clinical relevance. The weakness of this study is that is has been conducted in this single cell line only. It remains to be shown whether regulation of radiosensitivity by miR-221 and PTEN applies for other CRC cell lines too and whether it might apply in an in vivo situation. This limitation might be mentioned in the Discussion. Major Point 1. Method. Regarding real-time PCR for micro RNAs and transcripts, the authors referred to a previous publication by them, ref#10. As this article is in Chinese, it is not suitable as a reference, as it cant be read/checked by the whole community. The authors must describe the technique again within this manuscript in the respective paragraph. Minor points 1. Title. Phrasing of the title could be improved to my view. The term 'targeting' might be misleading in the context. Please try to substitute by 'up-regulating' or 'boosting' or something in that sense. 2. Citations in Introduction. (At least) refs #1 and #2 might mention the statements given in the sentences they refer to but they do not document them. They are secondary sources in this context. The authors have to cite the primary sources! 3. Language. Language is

above-average, no doubt. The manuscript would benefit from a language editing though.

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ESPS Peer-review Report
Name of Journal: World Journal of Gastroenterology
ESPS Manuscript NO: 5102
Title: Anti-microRNA-221 sensitizes human colorectal carcinoma cells to radiation by targeting PTEN
Reviewer code: 02563187
Science editor: Qi, Yuan
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CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
[ ] Grade A (Excellent)	[ ] Grade A: Priority Publishing	Google Search:	[ ] Accept
[Y] Grade B (Very good)	[Y] Grade B: minor language polishing	[ ] Existed	[ ] High priority for publication
[ ] Grade C (Good)	[ ] Grade C: a great deal of language polishing	[ ] No records	[ ]Rejection
[ ] Grade D (Fair)	[ ] Grade D: rejected	BPG Search:	[Y] Minor revision
[ ] Grade E (Poor)		[ ] Existed	[ ] Major revision
		[ ] No records	

COMMENTS TO AUTHORS
This manuscript describes up- and downregulation of miR-221 in CaCo cells by applying pre-miR-221 and anti-miR-221, respectively, and a concomittant inverse regulation of the tumor suppressor PTEN protein. The authors found miR-221 caused a significant increase of miR-221 value and decreased PTEN protein levels. Conversely, anti-miR-221 caused a significant decrease of miR-221 value and increased PTEN protein amounts. The authors suggest that up-regulation of PTEN expression by transfection of anti-miR-221 have important biologic effects on the radiosensitivity of CRC cells. This study appears to be well-designed and well-conducted. The weakness of this study is that is has been conducted in this single cell line only. It remains to be shown whether regulation of radiosensitivity by miR-221 and PTEN applies for other CRC cell lines too and whether it might apply in an in vivo situation. This limitation might be mentioned in the Discussion. Major Point 1. Language. The manuscript would benefit from a language editing though. 2. Figure 4. “Anti-miR-221”----“As-miR-221”,etc.Carefully check the similar mistake. 3. What is the basis of radiation dose selection? What is the choice on the basis of the measurement point after radiation exposure? References are given and experimental data.

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ESPS Peer-review Report
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Title: Anti-microRNA-221 sensitizes human colorectal carcinoma cells to radiation by targeting PTEN
Reviewer code: 02493799
Science editor: Qi, Yuan
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CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
[ ] Grade A (Excellent)	[ ] Grade A: Priority Publishing	Google Search:	[ ] Accept
[Y] Grade B (Very good)	[Y] Grade B: minor language polishing	[ ] Existed	[ ] High priority for publication
[ ] Grade C (Good)	[ ] Grade C: a great deal of language polishing	[ ] No records	[ ]Rejection
[ ] Grade D (Fair)	[ ] Grade D: rejected	BPG Search:	[Y] Minor revision
[ ] Grade E (Poor)		[ ] Existed	[ ] Major revision
		[ ] No records	

COMMENTS TO AUTHORS
This manuscript deals with the subject whether miR-221 is involved in radiosensitivity in colorectal cancers and whether miR-221-involved regulation of radiosensitivity is mediated by PTEN modulation. The authors showed that anti-miR-221 up-regulated the expression level of PTEN protein and enhanced the radiosensitivity of Caco2 cells. In addition, this effect was partially abolished by pretreatment with anti-PTEN-siRNA. The experiment was well designed and the manuscript is well analyzed and described. There are several minor issues to be addressed. 1. Please provide the densitometry data for all of the western blots. 2. In figure 5, the authors presented only the representative graphical data. Please provide the statistical data from multiple repeats. 3. About figure 6D, the authors described that "When pre-miR-221 was transfected into Caco2 cells previously treated with anti-PTEN-siRNA, we observed that anti-PTEN-siRNA and miR-221 seemed to co-operate to enhance the survival rate (Figure 6D)". However, figure 6D does not seem to be cooperative when anti-PTEN siRNA and pre-miR-221 was combined. Provide the statistical analysis for this result. 4. The authors also described as "These results indicated that the inhibitory effect of anti-miR-221 on CRC cell survival following irradiation was largely, but not completely, mediated by PTEN, suggesting that anti-miR-221 could also activate some PTEN-independent signaling pathway to repress CRC cell growth in addition to the up-regulation of PTEN." In this sentence, "largely" may not be appropriate since the effect looks like just partially.