

PEER-REVIEW REPORT

Name of journal: *World Journal of Gastrointestinal Oncology*

Manuscript NO: 87526

Title: Early results of the integrative epigenomic-transcriptomic landscape of colorectal adenoma and cancer

Provenance and peer review: Unsolicited manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 00503405

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Senior Lecturer, Senior Scientist

Reviewer's Country/Territory: Hungary

Author's Country/Territory: China

Manuscript submission date: 2023-08-17

Reviewer chosen by: Yu-Lu Chen

Reviewer accepted review: 2023-09-17 12:31

Reviewer performed review: 2023-09-18 15:53

Review time: 1 Day and 3 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input checked="" 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 Grade E: Do not publish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

Scientific significance of the conclusion in this manuscript	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input checked="" type="checkbox"/> Grade D: No scientific significance
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 type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input checked="" type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Peer-reviewer statements	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

The authors of this article performed methylation analysis of colon adenoma and CRC samples using SeqCap targeted bisulfite sequencing and RNA-seq analysis. When 22 CRC samples and 25 ADE samples were compared, the global methylation was higher in the CRC samples. However, the methylation patterns for differentially methylated position genes, chromatin signatures, and repeated elements were the same for both groups. With the help of RNA-Seq gene expression data, they found 14 meDEGs, but only the methylation of AGTR1 and NECAB1 could predict the prognosis. Although their objectives, techniques, and complex in silico studies used are state-of-the-art, I have fundamental problems with the design of the research. For the adenoma group, the samples should at least have been divided into low- and high-grade adenomas, not to mention their histological type (tubular, tubulo-villous, or villous). Also, for CRC samples, samples should have been subdivided into at least early and advanced grades. It has been previously shown that promoter mutational abnormalities in CRC driver genes can be detected in early adenomas. It would have been good to compare the results with this article (PLoS One. 2015 Aug 20;10(8):e0133836. doi:

10.1371/journal.pone.0133836.) Another shortcoming of the article is its descriptive nature. In at least one colon cancer cell line, it would have been worthwhile to investigate the consequences of restoring methylation status in a subset of genes (e.g., by 5-aza-2' deoxycytidine treatment). Given these shortcomings, I do not consider the article suitable for publication.

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Reviewer's code: 02944288

Position: Editorial Board

Academic degree: MD

Professional title: Assistant Professor, Lecturer, Surgeon

Reviewer's Country/Territory: Russia

Author's Country/Territory: China

Manuscript submission date: 2023-08-17

Reviewer chosen by: Yu-Lu Chen

Reviewer accepted review: 2023-10-03 08:13

Reviewer performed review: 2023-10-09 08:43

Review time: 6 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 checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
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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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	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

Dear authors. Weaknesses or deficiencies in the manuscript are: 1) Too small amount of samples. Especially taking into account results of some other authors. I would recommend to add more samples to the study and rename it as "Early Results..." 2) If authors wanted to identify exacts drivers from adenoma to carcinoma progression? They have to compare exactly late stage adenomas and early stage carcinomas. But they did not divide adenomas and carcinomas into early and late stage subgroups. I also recommend to withdraw from the manuscript the words about identification drivers from adenoma to carcinoma and divide both mentioned groups into early and late stage. 3) Authors posted their conclusions in the end of discussion section – it's better to post it in the separate conclusion section. This could be easily corrected

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Peer-review model: Single blind

Reviewer's code: 05524138

Position: Peer Reviewer

Academic degree: MD, PhD

Professional title: Chief Doctor, Consultant Physician-Scientist

Reviewer's Country/Territory: Kazakhstan

Author's Country/Territory: China

Manuscript submission date: 2023-08-17

Reviewer chosen by: Yu-Lu Chen

Reviewer accepted review: 2023-11-04 12:08

Reviewer performed review: 2023-11-04 12:19

Review time: 1 Hour

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
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	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

Dear authors, in the article you did not specify how you received 5-centimeter sections of normal tissue? By what method were they obtained, surgical resection of the intestine or ESD? And why are they not indicated from which part of the large intestine samples of normal tissue, adenomas and tumor material were obtained?