

PEER-REVIEW REPORT

Name of journal: *World Journal of Gastroenterology*

Manuscript NO: 74816

Title: N-linked glycoproteomic profiling in esophageal squamous cell carcinoma

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05457328

Position: Editorial Board

Academic degree: MSc, PhD

Professional title: Adjunct Professor, Associate Professor

Reviewer's Country/Territory: India

Author's Country/Territory: China

Manuscript submission date: 2022-01-14

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-01-21 01:03

Reviewer performed review: 2022-02-03 01:26

Review time: 13 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 Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input checked="" 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 checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous

statements

Conflicts-of-Interest: [] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

The manuscript entitled, "N-linked glycoproteomic profiling in esophageal squamous cell carcinoma" by Liu et al exploited mass spectrometry based proteomics for identification of glycoproteomics. I. Author must summarize studies where iTRAQ has been used for studying ESCC as the study like by Pawar et al (PMID:21743296) on ESCC is missing which is the 1st study utilizing iTRAQ for ESCC profiling. II. Must be changed from "15 ESCC and adjacent non-tumor tissues (5 samples for" to "15 ESCC and adjacent non-tumor tissues (5 samples for" III. How far were the tumor samples from the ESCC for paired samples? It must be mentioned. IV. For iTRAQ analysis: whether decoy search /FDR was done or not, all that must be mentioned. V. Change from "expression ratios calculated by WARP-LC" to "expression ratios calculated by WARP-LC" VI. Antibody from which vendor and what dilutions were used must be mentioned. VII. Has the data been submitted to public repository? If yes, a link must be provided to have access to the community. If not done yet, data must be submitted to public repository. VIII. English grammar is serious concern in this paper, it must be fixed as you can see some examples already listed.

PEER-REVIEW REPORT

Name of journal: *World Journal of Gastroenterology*

Manuscript NO: 74816

Title: N-linked glycoproteomic profiling in esophageal squamous cell carcinoma

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 01047266

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Professor

Reviewer's Country/Territory: United States

Author's Country/Territory: China

Manuscript submission date: 2022-01-14

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-02-04 01:50

Reviewer performed review: 2022-02-07 04:45

Review time: 3 Days and 2 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 checked="" type="checkbox"/> Grade A: Priority publishing <input 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 checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Peer-reviewer	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous

statements

Conflicts-of-Interest: [] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

This manuscript by Liu et al profiled N-linked glycoproteins in human esophagus squamous cell carcinoma. Two techniques were utilized to compare cancer and normal tissues. Differential expression of several glycoproteins was validated with Western. Serum samples were also tested. The hypothesis is that glycoproteins are differentially expressed in ESCC vs normal and may potentially contribute to cancer development. Overall, this study is descriptive and hypothesis-generating by nature, but it does provide valuable data to guide future studies. This Reviewer has several comments as follows: 1. Pooling multiple samples together is not a good practice. Because of this, so-called "DEGs" may or may not be true due to a lack of statistical consideration. Technically, those two lists of DEGs discovered with two techniques (2DE and iTRAQ) do not overlap substantially with each other. Even with the same technique (iTRAQ), reproducibility is not that great (Figure 2). Therefore, the list of DEGs is quite shaky. Without a solid list of DEGs it is meaningless to do further bioinformatics analysis (Figure 3 and Figure 4). 2. As the author indicated, DEGs may result from DEPs or truly differential glycosyltransferase activities. It would be interesting for future studies to generate two lists, DEGs due to DEPs, and true DEGs. 3. Western validation with limited samples (Figure 5) does not really mean too much. Overall, the main drawback of this study is its lack of statistical consideration. The only solid conclusion is that they have developed the techniques to identify DEGs in ESCC, and they are able to differentiate DEGs due to DEPs and true DEGs. I would suggest the authors simplify the manuscript by presenting solid data and removing speculative parts.