

ESPS Peer-review Report

Name of Journal: World Journal of Gastroenterology

ESPS Manuscript NO: 4095

Title: Alteration in gene expression profile and oncogenicity of human esophageal squamous cell carcinoma cell line TE13 by the upregulation of Retinoblastoma Protein-interacting Zinc Finger Gene 1

Reviewer code: 02444878

Science editor: Gou, Su-Xin

Date sent for review: 2013-06-14 16:09

Date reviewed: 2013-06-27 15:36

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A (Excellent)	<input checked="" type="checkbox"/> Grade A: Priority Publishing	Google Search:	<input checked="" type="checkbox"/> Accept
<input type="checkbox"/> Grade B (Very good)	<input type="checkbox"/> Grade B: minor language polishing	<input type="checkbox"/> Existed	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C (Good)	<input type="checkbox"/> Grade C: a great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D (Fair)	<input type="checkbox"/> Grade D: rejected	<input type="checkbox"/> Existed	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E (Poor)		<input type="checkbox"/> No records	<input type="checkbox"/> Major revision

COMMENTS TO AUTHORS

This manuscript is not suited for publication in this journal. It is on basic sciences and is better published in journals on oncology or tumorigenesis. The exact relevance on humans need to be explored further.

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Title: Alteration in gene expression profile and oncogenicity of human esophageal squamous cell carcinoma cell line TE13 by the upregulation of Retinoblastoma Protein-interacting Zinc Finger Gene 1

Reviewer code: 00503609

Science editor: Gou, Su-Xin

Date sent for review: 2013-06-14 16:09

Date reviewed: 2013-06-29 23:44

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A (Excellent)	<input type="checkbox"/> Grade A: Priority Publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B (Very good)	<input checked="" type="checkbox"/> Grade B: minor language polishing	<input type="checkbox"/> Existed	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C (Good)	<input type="checkbox"/> Grade C: a great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D (Fair)		BPG Search:	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E (Poor)	<input type="checkbox"/> Grade D: rejected	<input type="checkbox"/> Existed	<input type="checkbox"/> Major revision
		<input type="checkbox"/> No records	

COMMENTS TO AUTHORS

Dong and co-workers investigated the role of retinoblastoma protein-interacting zinc finger gene 1 (RIZ1) expression in the growth of esophageal squamous cell carcinoma in mice. Esophageal carcinoma cell line TE13 cells were inoculated into nude mice. Test cells were transfected with pcDNA3.1+/TIZ1. Both blank controls and pcDNA3.1 controls were used for comparison. Tumor growth and gene expression were analyzed. Tumors treated with xenografts with RIZ1 increased RIZ1 mRNA and inhibited tumor growth compared to controls. Gene expression was documented in RIZ1 tumors showing expression of genes associated with cell development lymphocyte co-stimulation, and immune system development. The authors conclude that RIZ1 influences multiple cancer pathways. Critique 1. The abstract suggests that tumors were implanted and later transfected with RIZ1. The methods describe implantation of cells that were transfected at log phase in culture and then implanted. Which was done? 2. The experiment is correctly designed with proper controls. Techniques for analysis appear straight forward. However, the gene expression analyses are difficult to interpret. The significance of the results in Table 1 could be more clearly explained. 3. The data presented and the explanation is not clear for someone who does not work with microarray analysis directly. For example, the discussion in the results section gene ontology discussed the large number of changes in gene expression, but does not directly explain the data in the table. 4. The copies of the chips (Figure 3) which I received are not of sufficient quality and too complicated to interpret. 5. Specifically, what know genes were identified and quantified to support the statement that "many genes were associated with cell development, viral replication

supervision, co-stimulatory molecule, and immune system develops"? Was expression of genes that do not fit this pattern also identified? What is the significance of unknown genes which changed expression? Clearer discussion of how it was determined that the genes of interest were determined to be significant versus other pathways would be helpful. 6. The significance of Figure 4 is not clear. An in depth explanation of the what the graph shows and what its significance is required for the reader interested in esophageal cancer, but less knowledgeable about the molecular techniques used in this study. 7. The number of tables and figures is high and the data might be simplified and the manuscript shortened by eliminating redundant presentation of the data. For example, are both pictures of the tumor and tumor sized and the graph of tumor growth necessary? 8. Minor – I believe that the term co-stimulatory in the abstract should be co-stimulation. There are other places in the manuscript where the proper form of the term is not correct. In general, this study is well performed and the results appear to show that lack of RIZI may be important in development of squamous cell carcinoma of the esophagus. Although the results are straight forward showing that increase in RIZI activity inhibits growth of these tumor cells the analysis of the multiple pathways by which it may influence tumor growth is not well explained and difficult to understand for the general reader with interest in esophageal cancer.