

## Response letter

*Reviewer #1:*

Scientific Quality: Grade A (Excellent)

Language Quality: Grade A (Priority publishing)

Conclusion: Accept (High priority)

Specific Comments to Authors: Recension of manuscript No. 56071: „ Identification of APEX2 as an oncogene in liver cancer, written by Ru Zheng, Hengliang Zhu, Bingren Hu, Xiaojiao Ruan, Huajie Cai”, which will be published in World Journal of Gastroenterology. The structure of manuscript is in keeping with the common required criteria. The topic of the work is very actual, because liver hepatocellular carcinoma is one of the most malignant tumors, and the death rate ranks 5th by the newly report. DNA damage is a major risk in the process of cancerization, and apyrimidinic endodeoxyribonuclease was identified as an important molecule, which involved in the regulation of DNA damage. Apyrimidinic endodeoxyribonuclease contains two genes, which named as APEX1 and APEX2. APEX1 has been widely reported in the many cancers, especially in the liver cancer. APEX1 was recently reported as a new diagnostic and prognostic biomarker for liver hepatocellular carcinoma (LIHC). However, the role of APEX2 in LIHC still remains poorly understood. The authors found that APEX2 is identified as an oncogene in liver cancer, the overexpression of APEX2 could be a poor prognosis factor, and knockdown of APEX2 can disrupt the proliferation activity, thus the inhibitor against APEX2 may be a promising therapeutic strategy in the treatment of liver cancer. Work is clearly legible, brings summarizes new knowledge. The citations are actual and their format respect usual standards. The conclusion reflects the author's results and these can be accepted. I recommend the manuscript to be published. Kosice, 24. May 2020 MUDr. Jana Katuchova, PhD. Professor of Department of Surgery University Hospital Košice Slovakia

**Reply:** We thank the positive comments from the reviewer.

*Reviewer #2:*

Scientific Quality: Grade A (Excellent)

Language Quality: Grade A (Priority publishing)

Conclusion: Accept (High priority)

Specific Comments to Authors: This is an interesting manuscript about the expression of APEX2 and its potential mechanism in liver hepatocellular carcinoma (LIHC). APEX2 is overexpressed in LIHC, and the higher APEX2 level shows worse prognosis in overall survival. In addition, APEX2 expression is positively correlated with the pro-oncogenic pathways. Knockdown of APEX2 can inhibit the cell viability. The authors have demonstrated that the inhibitor against APEX2 may be a promising therapeutic strategy in the treatment of liver cancer. This manuscript is nicely structured and well written. I have no question about this manuscript.

**Reply:** We thank the positive comments from the reviewer.

*Editorial Office's comments*

The author must revise the manuscript according to the Editorial Office's comments and suggestions, which listed below:

(1) Science Editor: 1 Scientific quality: The manuscript describes a basic study of the liver cancer. The topic is within the scope of the WJG. (1) Classification: Grade A and Grade A; (2) Summary of the Peer-Review Report: The authors found that APEX2 is identified as an oncogene in liver cancer, the overexpression of APEX2 could be a poor prognosis factor, and knockdown of APEX2 can disrupt the proliferation activity, thus the inhibitor against APEX2 may be a therapeutic strategy in the treatment of liver cancer. Work is clearly legible, brings summarizes new knowledge. This manuscript is nicely structured and well written; and (3) Format: There are 7 figures. A total of 36 references are cited, including 28 references published in the last 3 years. There are no self-citations. 2 Language evaluation: Classification: Grade A and Grade A. A language editing certificate issued by MedSci was provided. 3 Academic norms and rules: The authors provided the Biostatistics Review Certificate, the signed Conflict-of-Interest Disclosure Form and Copyright License Agreement. The Institutional Review Board Approval Form, Institutional Animal Care and Use Committee Approval Form, and ARRIVE checklist are not applicable. No academic misconduct was found in the CrossCheck detection and Bing search. 4 Supplementary comments: This is an unsolicited manuscript. The study was supported by Wenzhou Science and Technology Bureau. The topic has not previously been published in the WJG. The corresponding author has not published articles in the BPG. 5 Issues raised: (1) I found the authors did not provide the approved grant application form(s). Please upload the approved grant application form(s) or funding agency copy of any approval document(s); (2) I found the authors did not provide the original figures. Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor; and (3) I found the authors did not write the "article highlight" section. Please write the "article highlights" section at the end of the main text. 6 Re-Review: Required. 7 Recommendation: Conditionally accepted.

**Reply:** We thank the positive comments from editors. And the revised manuscript has supplied the materials of article highlights. Furthermore, the approved grant application form and original figures were also uploaded to the BPG.