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The primary aim of *World Journal of Gastrointestinal Oncology (WJGO, World J Gastrointest Oncol)* is to provide scholars and readers from various fields of gastrointestinal oncology with a platform to publish high-quality basic and clinical research articles and communicate their research findings online.

*WJGO* mainly publishes articles reporting research results and findings obtained in the field of gastrointestinal oncology and covering a wide range of topics including liver cell adenoma, gastric neoplasms, appendiceal neoplasms, biliary tract neoplasms, hepatocellular carcinoma, pancreatic carcinoma, cecal neoplasms, colonic neoplasms, colorectal neoplasms, duodenal neoplasms, esophageal neoplasms, gallbladder neoplasms, etc.

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## New perspectives in prognostication of hepatocellular carcinoma: The role and clinical implications of transient receptor potential family genes

Shi-Hao Guan, Wen-Jing Hu, Xin-Yu Wang, Yue-Xia Gu, De-Hua Zhou

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### Abstract

The study titled "Transient receptor potential-related risk model predicts prognosis of hepatocellular carcinoma patients" is a significant contribution to hepatocellular carcinoma (HCC) research, highlighting the role of transient receptor potential (TRP) family genes in the disease's progression and prognosis. Utilizing data from The Cancer Genome Atlas database, it establishes a new risk assessment model, emphasizing the interaction of TRP genes with tumor proliferation pathways, key metabolic reactions like retinol metabolism, and the tumor immune microenvironment. Notably, the overexpression of the TRPC1 gene in HCC correlates with poorer patient survival outcomes, suggesting its potential as a prognostic biomarker and a target for personalized therapy, particularly in strategies combining immunotherapy and anti-TRP agents.

**Key Words:** Hepatocellular carcinoma; Transient receptor potential channels; TRPC1 gene; Tumor immune microenvironment; Cancer prognosis; Bioinformatics in cancer research

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**Core Tip:** This pivotal study unveils a novel risk assessment model based on transient receptor potential (*TRP*) family genes, offering significant advancements in the prognostication and personalized treatment of hepatocellular carcinoma (HCC). It highlights the crucial role of *TRPC1* gene expression as a prognostic marker linked to patient survival and disease progression, potentially reshaping HCC therapeutic strategies. The findings underscore the importance of *TRP* genes in cancer biology, particularly their integration with tumor immune responses, paving the way for innovative treatments that combine immunotherapy with targeted *TRP* gene inhibition.

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## TO THE EDITOR

The study titled “Transient receptor potential-related risk model predicts prognosis of hepatocellular carcinoma patients” marks a significant contribution to the field of hepatocellular carcinoma (HCC) research[1]. Focusing on the role of transient receptor potential (*TRP*) family genes in HCC, it addresses a gap in this area of study. The research introduces a new risk assessment model that not only explores the role of these genes in the prognosis of HCC patients but also emphasizes their interaction with the tumor immune microenvironment, crucial for the early diagnosis and treatment of HCC.

Data from the well-recognized The Cancer Genome Atlas database were used, ensuring the reliability of the study’s findings. The application of rigorous statistical methods and bioinformatics tools further enhances the accuracy and validity of the results. By identifying *TRP* genes significantly associated with the prognosis of HCC, the study offers new biomarkers for clinicians, aiding in personalized treatment of the disease.

Notably, the expression of the *TRPC1* gene in HCC is closely linked to reduced overall survival and shorter life expectancy in patients. *TRPC1* may promote the onset of liver cancer by modulating tumor proliferation signaling pathways and key metabolic reactions, such as retinol metabolism. Additionally, *TRPC1* might further advance liver cancer development by affecting the expression of genes like *ABI2*, *MAPRE1*, *YEATS2*, *MTA3*, *TMEM237*, *MTMR2*, *CCDC6*, *AC069544.2*, and *NCBP2*[2].

The role of *TRP* family genes in various cancers, particularly their functions in cell signaling, survival, and apoptosis, is garnering increasing attention[3,4]. In liver cancer research, the expression of *TRP* genes is closely related to disease progression and prognosis. Although this study is limited by its retrospective nature using database data, future research could further validate these findings through prospective clinical trials and explore more genes and molecular mechanisms related to HCC.

In summary, this research not only enhances our understanding of HCC but may also facilitate the development of new treatment, especially in the combination of immunotherapy and anti-*TRP* drugs. The association of *TRP* genes with the tumor immune microenvironment paves the way for future research and may aid in developing novel therapeutic strategies against these molecular targets.

## FOOTNOTES

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## REFERENCES

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- 1 **Mei XC**, Chen Q, Zuo S. Transient receptor potential-related risk model predicts prognosis of hepatocellular carcinoma patients. *World J Gastrointest Oncol* 2023; **15**: 2064-2076 [PMID: [38173438](#) DOI: [10.4251/wjgo.v15.i12.2064](#)]
- 2 **Qi H**, Wu F, Wang H. Function of TRPC1 in modulating hepatocellular carcinoma progression. *Med Oncol* 2023; **40**: 97 [PMID: [36797544](#) DOI: [10.1007/s12032-023-01964-4](#)]
- 3 **Pang C**, Xu Z, Han J, Li F, Zhu H, Zhang J, Wang D, Xu X. Identification of a TRP channel-related risk model for predicting prognosis and therapeutic effects of patients with hepatocellular carcinoma. *J Cancer Res Clin Oncol* 2023; **149**: 16811-16825 [PMID: [37733242](#) DOI: [10.1007/s00432-023-05394-7](#)]
- 4 **Hu W**, Wartmann T, Strecker M, Perrakis A, Croner R, Szallasi A, Shi W, Kahlert UD. Transient receptor potential channels as predictive marker and potential indicator of chemoresistance in colon cancer. *Oncol Res* 2023; **32**: 227-239 [PMID: [38188686](#) DOI: [10.32604/or.2023.043053](#)]



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