# Article information:

Construction and validation of a novel signature based on epithelial-mesenchymal transition–related genes to predict prognosis and immunotherapy response in hepatocellular carcinoma by comprehensive analysis of the tumor microenvironment - PMC
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9763151/>

# Article summary:

1. This study constructed a prognostic signature based on 6 EMT-related genes to predict the prognosis and immunotherapy response of HCC patients.

2. The predictive efficacy of the signature was validated in different clinical subgroups and two independent external datasets.

3. The prognostic signature was positively correlated with TMB scores, MSI scores, SNV neoantigens scores, expression levels of immune checkpoint–related genes, and TIDE scores.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable and trustworthy as it provides evidence for its claims through comprehensive analysis of bulk RNA sequence data from 365 HCC patients in TCGA dataset, validation in different clinical subgroups and two independent external datasets, real-time quantitative polymerase chain reaction (qRT-PCR) to validate EMT-related gene overexpression in HCC tissue samples, and exploration of the relationship between prognostic signature and immunotherapy response in terms of immune cell infiltration, somatic mutations, tumor mutation burden (TMB), microsatellite instability (MSI), immune checkpoint–associated gene expression, single-nucleotide variants (SNV) neoantigens, cancer testicular antigens (CTA) scores, and tumor immune dysfunction and exclusion (TIDE) scores. However, there are some potential biases that should be noted. For example, the study only focuses on HCC patients from TCGA dataset which may not be representative of all HCC patients; thus further research should be conducted to confirm the findings in other populations. Additionally, the study does not explore any potential risks associated with immunotherapy such as side effects or long-term consequences which should be taken into consideration when making decisions about treatment options for HCC patients. Furthermore, the article does not present both sides equally as it mainly focuses on the benefits of immunotherapy without exploring any potential drawbacks or counterarguments which could lead to one-sided reporting. In conclusion, while this article is generally reliable and trustworthy due to its comprehensive analysis of data from multiple sources to support its claims regarding prognostic signatures for predicting prognosis and immunotherapy response in HCC patients; however there are some potential biases that should be noted such as lack of representation from other populations or exploration of potential risks associated with immunotherapy which could lead to one-sided reporting or unsupported claims.

# Topics for further research:

* HCC immunotherapy side effects
* Long-term consequences of immunotherapy
* HCC prognostic signatures in other populations
* Risks associated with immunotherapy
* Counterarguments to immunotherapy in HCC
* Biases in HCC immunotherapy research

# Report location:

<https://www.fullpicture.app/item/ad0fad61e3b1c7637a615ef18bcef9d9>