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PEER-REVIEW REPORT

Name of journal: World Journal of Hepatology

Manuscript NO: 64652

Title: Epigenetic mechanisms of liver tumor resistance to immunotherapy

Reviewer's code: 04152279

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: China

Author's Country/Territory: France

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Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-02-25 06:31

Reviewer performed review: 2021-03-02 14:29

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Scientific quality	[] Grade A: Excellent [Y] Grade B: Very good [] Grade C: Good [] Grade D: Fair [] Grade E: Do not publish
Language quality	[Y] Grade A: Priority publishing [] Grade B: Minor language polishing [] Grade C: A great deal of language polishing [] Grade D: Rejection
Conclusion	 [] Accept (High priority) [Y] Accept (General priority) [] Minor revision [] Major revision [] Rejection
Re-review	[Y]Yes []No
Peer-reviewer statements	Peer-Review: [Y] Anonymous [] Onymous Conflicts-of-Interest: [] Yes [Y] No



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SPECIFIC COMMENTS TO AUTHORS

This article provides a comprehensive review of the mechanisms of human immunity. The article first introduces the basics of immune mechanisms, starting with the activation and decay mechanisms of T cells, further introducing the PD-1/PDL-1 axis, the CTLA4/CD80-CD86 axis, further discussing tumor-infiltrating immune cells including: immune desert, immune excluded or inflamed tumors, successes and limitations of immunotherapy for hepatocellular carcinoma (including some new therapeutic options in phase III studies including: anti-PD-1 tislelizumab and Camrelizumab), and the successes and limitations of DNA methylation and DNMT inhibitors, histone modifications and targeted drugs, respectively. The therapeutic strategies of ICIs in combination with epigenetic drugs and the efficacy of the corresponding drugs in combination with ICIs. The article is logically rigorous and sufficiently detailed. The review of the basic mechanisms of immunity is very extensive, probably because of the few studies on liver cancer itself, and the article reviews extensively the relevant literature on blood and intestinal tumors, which accordingly makes the immune resistance mechanisms causing liver cancer appear to be on the low side.