

# Accepted Manuscript

Antibodies Against Immune Checkpoint Molecules Restore Functions of Tumor-infiltrating T cells in Hepatocellular Carcinomas

Guoying Zhou, Dave Sprengers, Patrick P.C. Boor, Michail Doukas, Hannah Schutz, Shanta Mancham, Alexander Pedroza-Gonzalez, Wojciech G. Polak, Jeroen de Jonge, Marcia Gaspersz, Haidong Dong, Kris Thielemans, Qiuwei Pan, Jan N.M. IJzermans, Marco J. Bruno, Jaap Kwekkeboom

PII: S0016-5085(17)35802-X  
DOI: [10.1053/j.gastro.2017.06.017](https://doi.org/10.1053/j.gastro.2017.06.017)  
Reference: YGAST 61252

To appear in: *Gastroenterology*  
Accepted Date: 15 June 2017

Please cite this article as: Zhou G, Sprengers D, Boor PPC, Doukas M, Schutz H, Mancham S, Pedroza-Gonzalez A, Polak WG, de Jonge J, Gaspersz M, Dong H, Thielemans K, Pan Q, IJzermans JNM, Bruno MJ, Kwekkeboom J, Antibodies Against Immune Checkpoint Molecules Restore Functions of Tumor-infiltrating T cells in Hepatocellular Carcinomas, *Gastroenterology* (2017), doi: 10.1053/j.gastro.2017.06.017.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Antibodies Against Immune Checkpoint Molecules Restore Functions of Tumor-infiltrating T cells in Hepatocellular Carcinomas

**Short title: Multiple immune checkpoint blockade in HCC**

Guoying Zhou<sup>1</sup>, Dave Sprengers<sup>1</sup>, Patrick P.C. Boor<sup>1</sup>, Michail Doukas<sup>2</sup>, Hannah Schutz<sup>1</sup>, Shanta Mancham<sup>1</sup>, Alexander Pedroza-Gonzalez<sup>4</sup>, Wojciech G. Polak<sup>3</sup>, Jeroen de Jonge<sup>3</sup>, Marcia Gaspersz<sup>3</sup>, Haidong Dong<sup>5</sup>, Kris Thielemans<sup>6</sup>, Qiuwei Pan<sup>1</sup>, Jan N.M. IJzermans<sup>3</sup>, Marco J. Bruno<sup>1</sup>, Jaap Kwekkeboom<sup>1</sup>.

Departments of <sup>1</sup>Gastroenterology and Hepatology, <sup>2</sup>Pathology, and <sup>3</sup>Surgery, Erasmus MC-University Medical Center, Rotterdam, the Netherlands; <sup>4</sup>Laboratory of Immunology Research, FES-Iztacala, UNAM, Mexico; <sup>5</sup>Department of Urology and Immunology, Mayo Clinic College of Medicine, Rochester, MN, USA; and <sup>6</sup>Laboratory of Molecular and Cellular Therapy, Department of Immunology-Physiology, Vrije Universiteit, Brussels, and eTheRNA immunotherapies NV, Niel, Belgium.

Grant support: This study was supported by the China Scholarship Council which provided a PhD-fellowship grant to Guoying Zhou (number 201306270017).

Abbreviations: antigen-presenting cells (APC), cytotoxic T cells (CTL), cytotoxic T-lymphocyte associated protein 4 (CTLA4), carboxyfluorescein diacetate succinimidyl ester (CFSE), dendritic cell lysosome-associated membrane protein (DCLamp), enzyme-linked immunosorbent assay (ELISA), glypican 3 (GPC3), galectin 9 (GAL-9), hepatocellular carcinoma (HCC), hepatitis B virus (HBV), hepatitis C virus (HCV), lymphocyte activating 3 (LAG3), myeloid dendritic cells (mDC), MAGE family member C2 (MAGEC2), messenger RNA (mRNA), median fluorescence intensity (MFI), programmed cell death 1 (PD-1), CD274 molecule (PD-L1), peripheral blood mononuclear cells (PBMC), regulatory T cells (Treg), standard error of the mean (SEM), tumor-infiltrating lymphocytes (TIL), tumor-free liver tissues (TFL), tumor-associated antigen (TAA), hepatitis A virus cellular receptor 2 (TIM3), T helper cells (Th), T cell receptor (TCR).

Correspondence should be addressed to:

Download English Version:

<https://daneshyari.com/en/article/5658143>

Download Persian Version:

<https://daneshyari.com/article/5658143>

[Daneshyari.com](https://daneshyari.com)