



Corrigendum: Identification of a Potential miRNA-mRNA Regulatory Network Associated With the Prognosis of HBV-ACLF

Shanshan Ma^{1,2,3†}, Zhongyang Xie^{1,2,3†}, Lingjian Zhang^{1,2,3}, Ya Yang^{1,2,3}, He Jiang^{1,2,3}, Xiaoxi Ouyang^{1,2,3}, Yalei Zhao^{1,2,3}, Qiuhong Liu^{1,2,3}, Xiaowei Xu^{3,4*} and Lanjuan Li^{1,2,3*}

¹State Key Laboratory for Diagnosis and Treatment of Infectious Diseases, The First Affiliated Hospital, College of Medicine, Zhejiang University, Hangzhou, China, ²National Clinical Research Center for Infectious Diseases, The First Affiliated Hospital, College of Medicine, Zhejiang University, Hangzhou, China, ³Collaborative Innovation Center for Diagnosis and Treatment of Infectious Diseases, The First Affiliated Hospital, College of Medicine, Zhejiang University, Hangzhou, China, ⁴Department of Infectious Diseases, The First Affiliated Hospital, College of Medicine, Zhejiang University, Hangzhou, China,

Keywords: hepatitis B virus, acute-on-chronic liver failure, prognosis, network, miRNA

A Corrigendum on

OPEN ACCESS

Edited and reviewed by: Tena Ma.

Capital Medical University, China

*Correspondence:

Xiaowei Xu xxw69@126.com Lanjuan Li Ijli@zju.edu.cn [†]These authors have contributed equally to this work

Specialty section:

This article was submitted to Protein and RNA Networks, a section of the journal Frontiers in Molecular Biosciences

> Received: 06 May 2021 Accepted: 16 June 2021 Published: 29 June 2021

Citation:

Ma S, Xie Z, Zhang L, Yang Y, Jiang H, Ouyang X, Zhao Y, Liu Q, Xu X and Li L (2021) Corrigendum: Identification of a Potential miRNA-mRNA Regulatory Network Associated With the Prognosis of HBV-ACLF. Front. Mol. Biosci. 8:705683. doi: 10.3389/fmolb.2021.705683

Identification of a Potential miRNA-mRNA Regulatory Network Associated With the Prognosis of HBV-ACLF

by Ma, S., Xie, Z., Zhang, L., Yang, Y., Jiang, H., Ouyang, X., et al. (2021). Front. Mol. Biosci. 8:657631. doi: 10.3389/fmolb.2021.657631

In the original article, there was an error in the **Abstract**. The second paragraph titled "**Methods**" in the **Abstract** is redundant and should have been removed. A correction has been made to the **Abstract**:

"Background: Hepatitis B virus-related acute-on-chronic liver failure (HBV-ACLF) is a lifethreatening disease with a high mortality rate; the systemic inflammatory response plays a vital role in disease progression. We aimed to determine if a miRNA–mRNA co-regulatory network exists in the peripheral blood mononuclear cells (PBMCs) of HBV-ACLF patients, which might be important for prognosis.

Methods: Transcriptome-wide microRNA (miRNA) and mRNA microarrays were used to define the miRNA and mRNA expression profiles of the PBMCs of HBV-ACLF patients in a discovery cohort. The targets of the miRNAs were predicted. We built a miRNA-mRNA regulatory network through bioinformatics analysis, and used quantitative real-time polymerase chain reaction (qRT-PCR) to assess the importance of candidate miRNAs and mRNAs. We also assessed the direct and transcriptional regulatory effects of miRNAs on target mRNAs using a dual-luciferase reporter assay.

Results: The miRNA/mRNA PBMC expression profiles of the discovery cohort, of whom eight survived and eight died, revealed a prognostic interactive network involving 38 miRNAs and 313 mRNAs; this was constructed by identifying the target genes of the miRNAs. We validated the expression data in another cohort, of whom 43 survived and 35 died; miR-6840-3p, miR-6861-3p, JADE2, and NR3C2 were of particular interest. The levels of miR-6840-3p and miR-6861-3p were significantly increased in the PBMCs of the patients who died, and thus predicted prognosis (areas under the curve values = 0.665 and 0.700, respectively). The dual-luciferase reporter assay indicated that miR-6840-3p directly targeted JADE2.

1

Conclusion: We identified a prognostic miRNA-mRNA coregulatory network in the PBMCs of HBV-ACLF patients. miR-6840-3p-JADE2 is a potential miRNA-mRNA pair contributing to a poor prognosis."

The authors apologize for this error and state that this does not change the scientific conclusions of the article in any way. The original article has been updated. Copyright © 2021 Ma, Xie, Zhang, Yang, Jiang, Ouyang, Zhao, Liu, Xu and Li. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.