



OPEN ACCESS

APPROVED BY
Frontiers Editorial Office,
Frontiers Media SA, Switzerland

*CORRESPONDENCE

Cuifang Han
✉ hancuifang@gdmu.edu.cn
Hongbing Yu
✉ hbyu@gdmu.edu.cn
Zhiwei He
✉ hezhiwei@gdmu.edu.cn

†These authors have contributed equally to this work

SPECIALTY SECTION

This article was submitted to
Molecular and Cellular Oncology,
a section of the journal
Frontiers in Oncology

RECEIVED 09 February 2023

ACCEPTED 10 February 2023

PUBLISHED 08 March 2023

CITATION

Han C, Chen J, Huang J, Zhu R, Zeng J, Yu H and He Z (2023) Corrigendum: Single-cell transcriptome analysis reveals the metabolic changes and the prognostic value of malignant hepatocyte subpopulations and predict new therapeutic agents for hepatocellular carcinoma. *Front. Oncol.* 13:1162375. doi: 10.3389/fonc.2023.1162375

COPYRIGHT

© 2023 Han, Chen, Huang, Zhu, Zeng, Yu and He. This is an open-access article distributed under the terms of the [Creative Commons Attribution License \(CC BY\)](https://creativecommons.org/licenses/by/4.0/). 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.

Corrigendum: Single-cell transcriptome analysis reveals the metabolic changes and the prognostic value of malignant hepatocyte subpopulations and predict new therapeutic agents for hepatocellular carcinoma

Cuifang Han^{1*†}, Jiaru Chen^{1,2†}, Jing Huang¹, Riting Zhu^{1,2}, Jincheng Zeng³, Hongbing Yu^{1*} and Zhiwei He^{1*}

¹Guangdong Provincial Key Laboratory of Medical Molecular Diagnostics, The First Dongguan Affiliated Hospital, Guangdong Medical University, Dongguan, China, ²School of Pharmacy, Guangdong Medical University, Dongguan, China, ³Dongguan Key Laboratory of Medical Bioactive Molecular Developmental and Translational Research, Guangdong Provincial Key Laboratory of Medical Molecular Diagnostics, Guangdong Medical University, Dongguan, China

KEYWORDS

cancer metabolism, hepatocellular carcinoma, malignant hepatocytes, prognostic biomarker, single-cell RNA sequencing

A Corrigendum on

Single-cell transcriptome analysis reveals the metabolic changes and the prognostic value of malignant hepatocyte subpopulations and predict new therapeutic agents for hepatocellular carcinoma

by Han C, Chen J, Huang J, Zhu R, Zeng J, Yu H and He Z (2023) *Front. Oncol.* 13:1104262. doi: 10.3389/fonc.2023.1104262

In the published article, there was an error in [Figure 6](#) as published. The image of [Figure 6G](#) is superimposed on [Figure 6H](#). The corrected [Figure 6](#) and its caption [Figure 6 HDG identification and validation in the training \(TCGA-LIHC\) and validation cohorts \(GSE76427\)](#).

In the published article, there was an error in [FIGURE 7](#) as published. The symbols used for the statistical significance analysis in [Figure 7A](#) and [Figure 7C](#) are superimposed. The corrected [Figure 7](#) and its caption [Figure 7 The Relative RNA Expression Level and Protein Expression Level of prognosis-related differentially expressed genes. Appear below](#).

The authors apologize for these errors and state that they do not change the scientific conclusions of the article in any way. The original article has been updated.

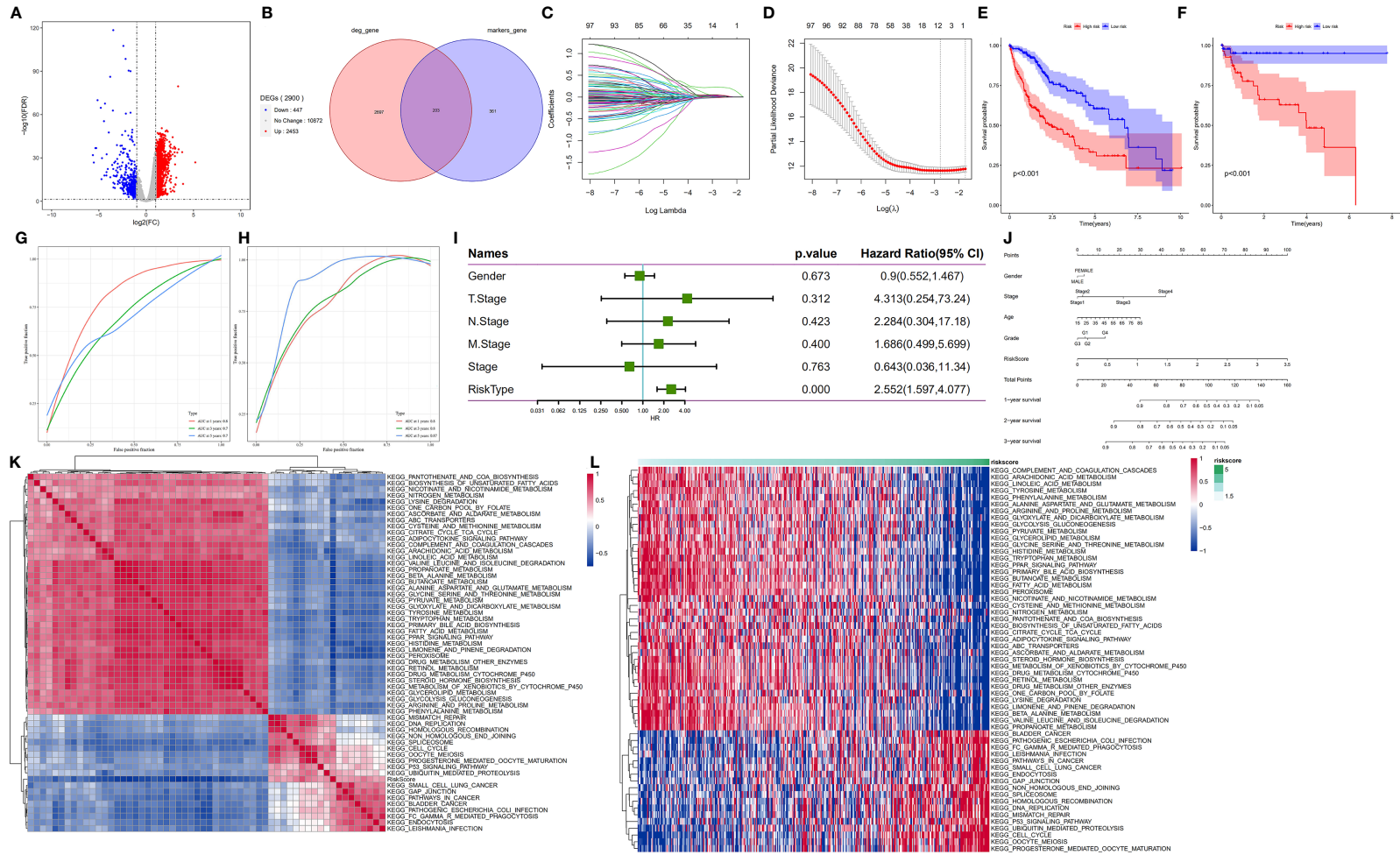


FIGURE 6 HDG identification and validation in the training (TCGA-LIHC) and validation cohorts (GSE76427). **(A)** The volcano plot of degs in the TCGA-LIHC dataset. **(B)** The intersection of degs of TCGA-LIHC with marker genes of epithelial cell subpopulation of HCC. **(C, D)** Coefficient distribution plots of log(λ) sequences **(C)** and selection of optimal parameters (lambda) in the LASSO model **(D)**. **(E, F)** Kaplan–Meier survival curves illustrate the prognostic value of the 11-gene signature in the training cohort **(E)** and validation cohort **(F)**. **(G, H)** Distribution of the 11-gene signature risk scores and survival value of HCC patients in the training cohort **(G)** and validation cohort **(H)**. ROC curves showing the value of the 11-gene signature in predicting the OS rates of HCC patients at 1, 3, and 5 years in both cohorts. **(I)** Forest plot showing multivariate Cox analysis results. **(J)** Nomogram showing the prediction of OS at 1, 2, and 3 years. **(K, L)** Regulatory pathways potentially related to risk score.

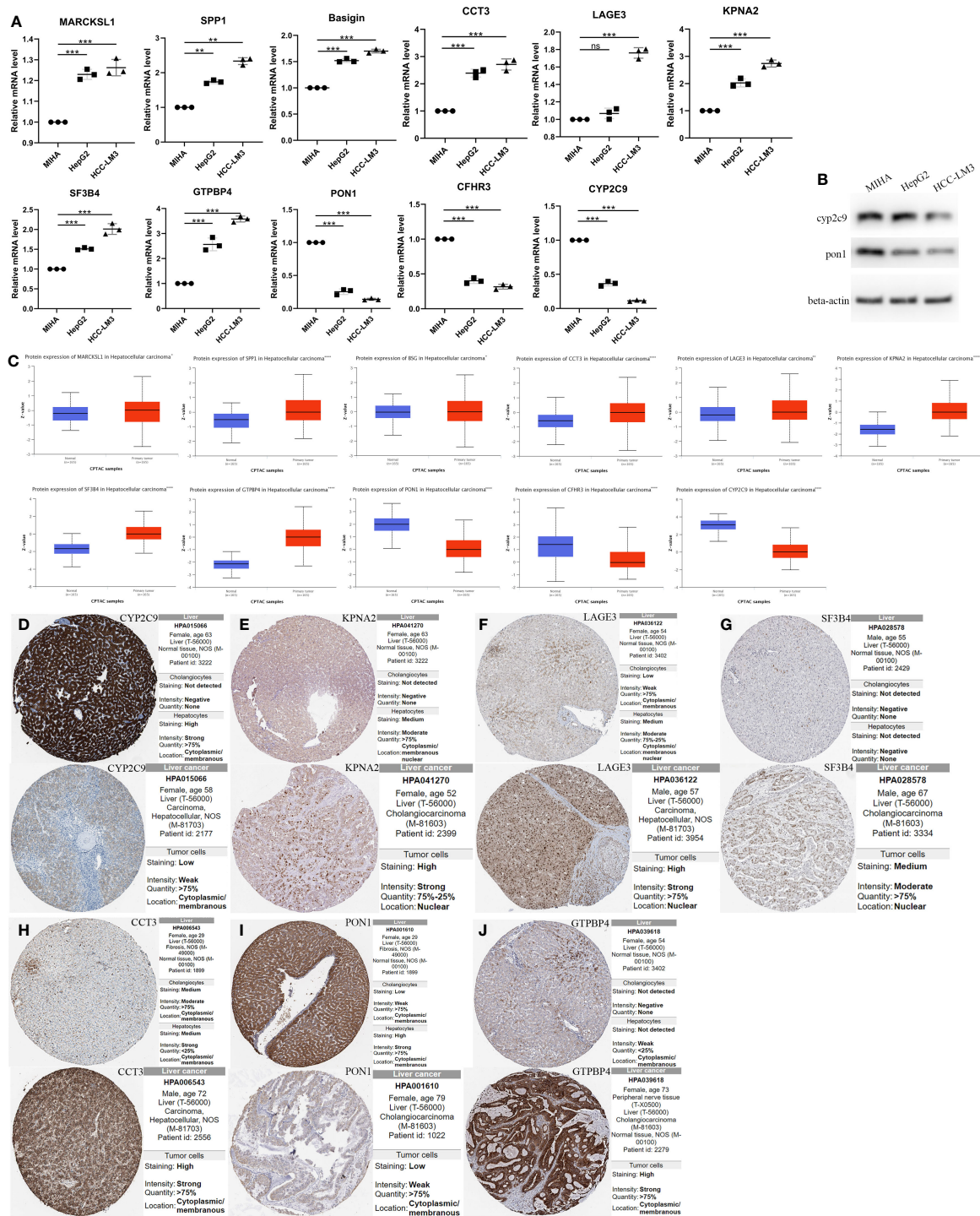


FIGURE 7 The Relative RNA Expression Level and Protein Expression Level of prognosis-related differentially expressed genes. **(A)** The Relative RNA Expression Level of MARCKSL1, SPP1, BSG, CCT3, LAGE3, KPNA2, SF3B4, GTPBP4, PON1, CFHR3 and CYP2C9. **(B)** Expression of CYP2C9 and PON1 in normal human hepatocyte cell line MIHA and HCC cell lines HCC-LM3 and HepG2 through western blot analysis. **(C)** Box plots showed the differential protein expression of 11 hub genes in the CPTAC dataset in HCC tumor tissue and adjacent normal. **(D–J)** Immunohistochemical analysis of the CYP2C9, KPNA2, LAGE3, SF3B4, CCT3, PON1 and GTPBP4 in HCC and liver tissues from the HPA database. HCC, hepatocellular carcinoma; CPTAC, The National Cancer Institute’s Clinical Proteomic Tumor Analysis Consortium. HPA, Human Protein Atlas. (Unpaired t-test, *P < 0.05, **P < 0.01, ***P < 0.001, ****p < 0.0001 and ns, no significance).

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated

organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.