



Corrigendum: Identification of Hypoxia Induced Metabolism Associated Genes in Pulmonary Hypertension

Yang-Yang He¹, Xin-Mei Xie¹, Hong-Da Zhang², Jue Ye², Selin Gencer³, Emiel P. C. van der Vorst^{3,4,5,6,7}, Yvonne Döring^{3,4,8}, Christian Weber^{3,4,9,10}, Xiao-Bin Pang¹, Zhi-Cheng Jing¹¹, Yi Yan^{3,4*†} and Zhi-Yan Han^{2*†}

¹School of Pharmacy, Henan University, Kaifeng, China, ²State Key Laboratory of Cardiovascular Disease and FuWai Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China, ³Institute for Cardiovascular Prevention (IPEK), Ludwig-Maximilians-University Munich, Munich, Germany, ⁴DZHK (German Centre for Cardiovascular Research), Partner Site Munich Heart Alliance, Munich, Germany, ⁵Interdisciplinary Center for Clinical Research (IZKF), RWTH Aachen University, Aachen, Germany, ⁶Institute for Molecular Cardiovascular Research (IMCAR), RWTH Aachen University, Aachen, Germany, ⁷Department of Pathology, Cardiovascular Research Institute Maastricht (CARIM), Maastricht University Medical Centre, Maastricht, Netherlands, ⁸Department of Angiology, Swiss Cardiovascular Research Institute Maastricht (CARIM), Maastricht University Hospital, University Medical Centre, Maastricht, Netherlands, ¹⁰Munich Cluster for Systems Neurology (SyNergy), Munich, Germany, ¹¹State Key Laboratory of Complex, Severe, and Rare Diseases, and Department of Cardiology, Peking Union Medical College Hospital, Chinese Academy of Medical Sciences and Peking Union Medical College, Beijing, China

OPEN ACCESS

Edited and reviewed by:

Xiaohui Li, Central South University, China

*Correspondence:

Yi Yan yi.yan@med.uni-muenchen.de Zhi-Yan Han zhiyanhan2006@hotmail.com

[†]These authors have contributed equally to this work and share last authorship

Specialty section:

This article was submitted to Respiratory Pharmacology, a section of the journal Frontiers in Pharmacology

Received: 06 November 2021 **Accepted:** 26 November 2021 **Published:** 15 December 2021

Citation

He Y-Y, Xie X-M, Zhang H-D, Ye J, Gencer S, van der Vorst EPC, Döring Y, Weber C, Pang X-B, Jing Z-C, Yan Y and Han Z-Y (2021) Corrigendum: Identification of Hypoxia Induced Metabolism Associated Genes in Pulmonary Hypertension. Front. Pharmacol. 12:810178. doi: 10.3389/fphar.2021.810178 Keywords: pulmonary hypertension, hypoxia, metabolism associated genes, metabolomics, transcriptomics

A Corrigendum on

Identification of Hypoxia Induced Metabolism Associated Genes in Pulmonary Hypertension by He Y.-Y., Xie X.-M., Zhang H.-D., Ye J., Gencer S., van der Vorst E. P. C., Döring Y., Weber C., Pang X.-B., Jing Z.-C., Yan Y., and Han Z.-Y. (2021). Front. Pharmacol. 12:753727. doi: 10.3389/fphar.2021. 753727

In the original article, there was a mistake in the citation as published. In the citation, commas were missing between "He Y-Y and Xie X-M, Xie X-M and Zhang H-D, Zhang H-D and Ye J, Pang X-B and Jing Z-C, Jing Z-C and Yan Y". The corrected citation should be "He Y-Y, Xie X-M, Zhang H-D, Ye J, Gencer S, van der Vorst EPC, Döring Y, Weber C, Pang X-B, Jing Z-C, Yan Y and Han Z-Y (2021) Identification of Hypoxia Induced Metabolism Associated Genes in Pulmonary Hypertension. Front. Pharmacol. 12:753727. doi:10.3389/fphar.2021.753727."

In addition, there was a mistake in Figure 6 as published. The x-axis labels for **Figures 6B** and **6C** were incorrectly labelled as "specficity". The corrected Figure 6 appears below.

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.

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.

Copyright © 2021 He, Xie, Zhang, Ye, Gencer, van der Vorst, Döring, Weber, Pang, Jing, Yan and Han. 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.

1

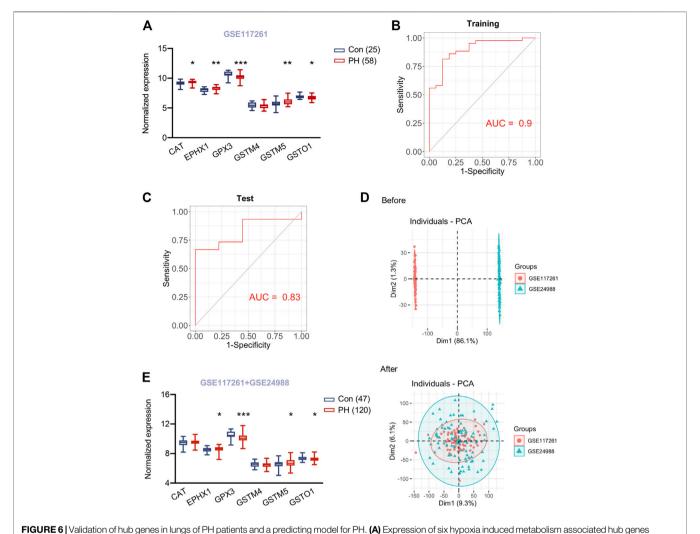


FIGURE 6 | Validation of hub genes in lungs of PH patients and a predicting model for PH. (A) Expression of six hypoxia induced metabolism associated hub genes in lung tissues of 58 patients with pulmonary hypertension (PH) and 25 control subjects from GSE117261. (B) ROC curve analysis of training set (GSE117261) using six hub genes. (C) ROC curve analysis of test set (GSE117261) using six hub genes. (D) PCA analysis demonstrated the distribution of data sets GSE117261 (red) and GSE24988 (green) before (upper panel) and after (lower panel) removal of batch effect. The distribution was visualized in scatter plot. (E) Expression of six hypoxia induced metabolism associated hub genes in lung tissues of 120 patients with pulmonary hypertension (PH) and 47 control subjects from GSE117261 and GSE24988 after correction of batch effect. Data represent mean \pm SEM. *p < 0.05, **p < 0.01, ***p < 0.001 compared to corresponding control subjects, as analyzed by unpaired t test or Mann-Whitney t test respectively, as appropriate.