## Check for updates

## **OPEN ACCESS**

EDITED AND REVIEWED BY Claudio Ferrante, University of Studies G. d'Annunzio Chieti and Pescara, Italy

\*CORRESPONDENCE Guiyuan Lv, zjtcmlgy@163.com Suhong Chen, chensuhong@zjut.edu.cn

<sup>†</sup>These authors have contributed equally to this work and share first authorship

#### SPECIALTY SECTION

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

RECEIVED 20 May 2022 ACCEPTED 18 July 2022 PUBLISHED 15 August 2022

# CITATION

Ke Y, Zhan L, Lu T, Zhou C, Chen X, Dong Y, Lv G and Chen S (2022), Corrigendum: Polysaccharides of Dendrobium officinale Kimura & Migo leaves protect against ethanol-induced gastric mucosal injury via the AMPK/ mTOR signaling pathway in vitro and vivo.

*Front. Pharmacol.* 13:948569. doi: 10.3389/fphar.2022.948569

#### COPYRIGHT

© 2022 Ke, Zhan, Lu, Zhou, Chen, Dong, Lv and Chen. 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. Corrigendum: Polysaccharides of Dendrobium officinale Kimura & Migo leaves protect against ethanol-induced gastric mucosal injury via the AMPK/mTOR signaling pathway in vitro and vivo

Yang Ke<sup>1†</sup>, Lianghui Zhan<sup>1†</sup>, Tingting Lu<sup>1</sup>, Cong Zhou<sup>1</sup>, Xue Chen<sup>1</sup>, Yingjie Dong<sup>1</sup>, Guiyuan Lv<sup>2\*</sup> and Suhong Chen<sup>1\*</sup>

<sup>1</sup>Collaborative Innovation Center of Yangtze River Delta Region Green Pharmaceuticals, Zhejiang University of Technology, Hangzhou, Zhejiang, China, <sup>2</sup>College of Pharmaceutical Science, Zhejiang Chinese Medical University, Hangzhou, Zhejiang, China

#### KEYWORDS

Dendrobium officinale Kimura & Migo leaves (LDOP), polysaccharides, alcohol, gastric injury, autophagy

# A Corrigendum on

Polysaccharides of *Dendrobium officinale* Kimura & Migo leaves protect against ethanol-induced gastric mucosal injury *via* the AMPK/mTOR signaling pathway *in vitro* and *vivo* 

by Ke Y, Zhan L, Lu T, Zhou C, Chen X, Dong Y, Lv G and Chen S (2020). Front. Pharmacol. 11: 526349. doi: 10.3389/fphar.2020.526349

In the original article, there was a mistake in Figures 4D, 8D, 10H, 11D as published. Due to the negligence of the author in the drawing process, the pictures are placed repeatedly. The corrected Figures 4, 8, 10, 11 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.



# FIGURE 4

Effects of LDOP-1 on oxidative stress. ROS (A), SOD (B) and T-AOC (C) were measured by biochemical Assays and the expression of HO-1 (D) was examined by immunohistochemical analysis (400x, brown yellow granules indicate positive reaction). Data are expressed as the mean  $\pm$  SD of three independent experiments. #p < 0.05, ##p < 0.01 compare the control group; \*p < 0.05 and \*\*p < 0.01, \*\*\*p < 0.001 compare model group. LDOP-L stood for LDOP-1-L, LDOP-H stood for LDOP-1-H.



# FIGURE 8

Effects of LDOP-1 on the production of SOD, T-AOC and ROS. (A–C) The levels of SOD, T-AOC and ROS were measured using a biochemical markers kit. The expression of ROS was detected by Immunofluorescence technique (D). Data are expressed as the mean  $\pm$  SD of three independent experiments. #p < 0.05, ##p < 0.01, ###p < 0.001 compare the control group; \*p < 0.05 and \*\*p < 0.01, \*\*\*p < 0.001 compare model group. LDOP stood for LDOP-1.



# FIGURE 10

LDOP could activate the autophagy by mTOR/AMPK signaling way *in vitro*. (A) The expression of LC3 $\beta$ , HO-1, Becline-1, p-AMPK, p62, p-mTOR detected by Western blot. (B–G) Statistical analysis on LC3 $\beta$ , HO-1, Becline-1, p-AMPK, p62, p-mTOR. Immunohistochemical image of HO-1 (H) measured by immunofluorescence technique. Data are expressed as the mean  $\pm$  SD of three independent experiments. \*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001 compare the control group; \*p < 0.05 and \*\*p < 0.01, \*\*\*p < 0.001 compare model group,  $^{s}p < 0.05$ ,  $^{ss}p < 0.01$ ,  $^{sss}p < 0.001$  compared with LDOP group.



## FIGURE 11

LDOP inhibited the expression of Bax, caspase 3 and boost of Bcl-2. (A) The expression of Bax and Bcl<sub>2</sub> detected by Western blot. (B) Statistical analysis on ratio of Bax to Bcl-2. (C) The production of caspase 3 detected by biochemical markers kit. (D) Immunohistochemical image of Bcl<sub>2</sub> measured by immunofluorescence technique. Data are expressed as the mean  $\pm$  SD of three independent experiments. \*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001 compare the control group; \*p < 0.05 and \*\*p < 0.01, \*\*\*p < 0.001 compare model group.

# 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.