

RETRACTION NOTE

Open Access



Retraction Note: Endoplasmic reticulum stress triggers Xanthoangelol-induced protective autophagy via activation of JNK/c-Jun Axis in hepatocellular carcinoma

Zichao Li¹, Luying Zhang², Mingquan Gao³, Mei Han², Kaili Liu², Zhuang Zhang⁴, Zhi Gong⁴, Lifei Xing², Xianzhou Shi⁵, Kui Lu^{4*} and Hui Gao^{2*}

Retraction note to: *J Exp Clin Cancer Res* 38, 8 (2019)
<https://doi.org/10.1186/s13046-018-1012-z>

The Editor-in-Chief has retracted this article [1] due to overlapping images with other articles, specifically:

- Figure 8d: the Beclin1 Vehicle and XAG (80 mg/kg) panels appear to overlap with the cleaved caspase-3 Vehicle and Exanthone (80 mg/kg/day) panels of Fig. 7c of [2].
- Figure 8d: the p-c-Jun Vehicle panel appears to overlap with the Beclin Vehicle panel of Fig. 7c of [2].
- Figure 3a: the Bel7402 XAG + 3-MA panel appears to be identical to the SMMC7721 Vehicle panel.
- Figure 3c: the Bel7402 XAG + Atg5 siRNA panel appears to be identical to the SMMC7721 Vehicle panel.
- Figure 3c: the SMMC7721 Atg5 siRNA panel appears to be similar to the SKOV3 Control and A2780 Control panels of Fig. 1e of [3], the Vehicle panel of Fig. 4b in [4] and the HT29 Control panel of Fig. 7b of [5]

- Figure 8d: the Vehicle CHOP, GRP78 and p-JNK panels appears to be similar to the Ki-67 EX(40 mg/kg) panel, the IL-18 Vehicle panel and the IL-18 EX(20 mg/kg) panel of [6].
- Figure 8d: the XAG(40 mg/kg) CHOP panel appears to be similar to the KI-67 EX(20 mg/kg) panel of [6].
- Figure 8d: the XAG(80 mg/kg) CHOP and GRP78 panels appear to be similar to the KI-67 Vehicle and the IL-18 EX(40 mg/kg) panels of [6].

The data reported in this article are therefore unreliable.

Hui Gao agrees to this retraction. Zichao Li, Luying Zhang, Mingquan Gao, Mei Han, Kaili Liu, Zhuang Zhang, Zhi Gong, Lifei Xing, Xianzhou Shi, Kui Lunot have responded to any correspondence from the publisher about this retraction.

Author details

¹College of Life Sciences, Qingdao University, Qingdao 266071, China. ²Department of Pharmacology, School of Pharmacy, Qingdao University, Qingdao 266021, China. ³The Affiliated Cancer Hospital, School of Medicine, University of Electronic Science and Technology of China, Chengdu 610041, Sichuan, China. ⁴China International Science and Technology Cooperation Base of Food Nutrition/Safety and Medicinal Chemistry, College of Biotechnology, Tianjin University of Science & Technology, Tianjin 300457, China. ⁵Northeast Yucai Bilingual School, Shenyang 110164, China.

Published online: 19 August 2020

References

1. Li Z, Zhang L, Gao M, et al. Endoplasmic reticulum stress triggers Xanthoangelol-induced protective autophagy via activation of JNK/c-Jun Axis in hepatocellular carcinoma. *J Exp Clin Cancer Res*. 2019;38:8 <https://doi.org/10.1186/s13046-018-1012-z>.

The original article can be found online at <https://doi.org/10.1186/s13046-018-1012-z>.

* Correspondence: lukui@tust.edu.cn; huigao@qdu.edu.cn

⁴China International Science and Technology Cooperation Base of Food Nutrition/Safety and Medicinal Chemistry, College of Biotechnology, Tianjin University of Science & Technology, Tianjin 300457, China

²Department of Pharmacology, School of Pharmacy, Qingdao University, Qingdao 266021, China

Full list of author information is available at the end of the article



© The Author(s). 2020 **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>. The Creative Commons Public Domain Dedication waiver (<http://creativecommons.org/publicdomain/zero/1.0/>) applies to the data made available in this article, unless otherwise stated in a credit line to the data.

2. Zhu L, Liu X, Li D, Sun S, Wang Y, Sun X. RETRACTED: autophagy is a pro-survival mechanism in ovarian cancer against the apoptotic effects of euxanthone. *Biomed Pharmacother.* 2018;103:708–18. <https://doi.org/10.1016/j.biopha.2018.04.090>.
3. Zou J, Wang Y, Liu M, et al. Euxanthone inhibits glycolysis and triggers mitochondria-mediated apoptosis by targeting hexokinase 2 in epithelial ovarian cancer. *Cell Biochem Funct.* 2018;36:303–11. <https://doi.org/10.1002/cbf.3349>.
4. Yang X, Yin G, Sun H, Zhao G. Physcion 8-O- β -Glucopyranoside Alleviates Oxidized Low-Density Lipoprotein-Induced Human Umbilical Vein Endothelial Cell Injury by Inducing Autophagy Through AMPK/SIRT1 Signaling. *J Cardiovasc Pharmacol.* 2019;74(1):53–61. <https://doi.org/10.1097/FJC.0000000000000680>.
5. Liu K, Gao H, Wang Q, et al. Hispidulin suppresses cell growth and metastasis by targeting PIM1 through JAK2/STAT3 signaling in colorectal cancer. *Cancer Sci.* 2018 May;109(5):1369–81. <https://doi.org/10.1111/cas.13575>.
6. Chen Y-F, Qi H-Y, Wu F-L. Euxanthone exhibits anti-proliferative and anti-invasive activities in hepatocellular carcinoma by inducing pyroptosis: preliminary results. *Eur Rev Med Pharmacol Sci.* 2018;22(N. 23):8186–96. https://doi.org/10.26355/eurev_201812_16511.