

CORRECTION

Open Access



# Correction: Acute exposure to gold nanoparticles aggravates lipopolysaccharide-induced liver injury by amplifying apoptosis via ROS-mediated macrophage-hepatocyte crosstalk

Yongjun Yang<sup>1</sup>, Shijun Fan<sup>1</sup>, Qian Chen<sup>1</sup>, Yongling Lu<sup>1</sup>, Yuanfeng Zhu<sup>1</sup>, Xiaoli Chen<sup>1</sup>, Lin Xia<sup>1</sup>, Qianying Huang<sup>1</sup>, Jiang Zheng<sup>1</sup> and Xin Liu<sup>1\*</sup>

**Correction: Journal of Nanobiotechnology (2022) 20:37**  
<https://doi.org/10.1186/s12951-021-01203-w>

Following publication of the original article [1], the authors identified an error in Fig.9. The correct Fig. 9 is

given below. The authors apologize for not noticing these errors prior to publication, and for any inconvenience caused. The original article has been corrected.

---

The original article can be found online at <https://doi.org/10.1186/s12951-021-01203-w>.

\*Correspondence:

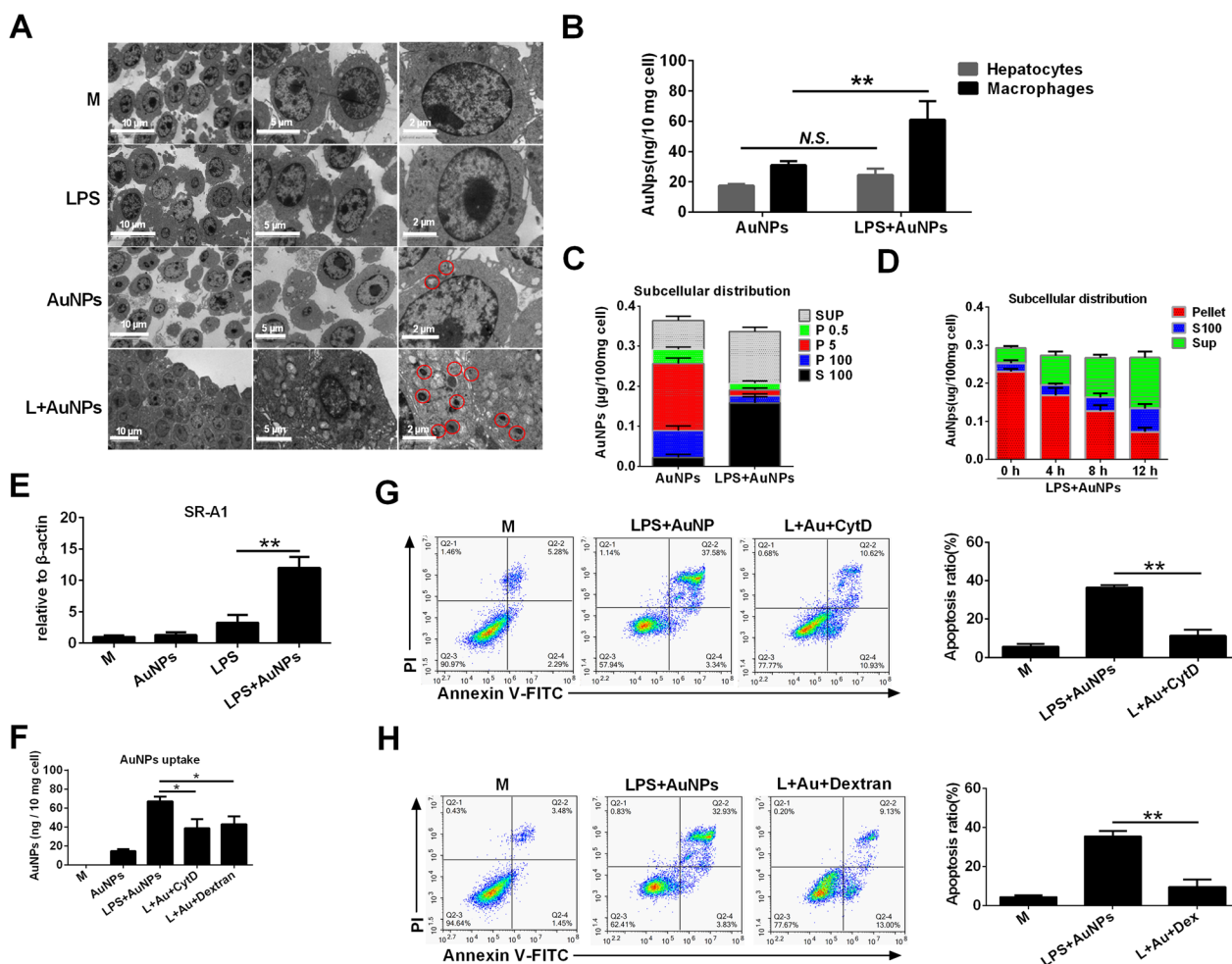
Xin Liu

liux0704@tmmu.edu.cn

<sup>1</sup> Medical Research Center, Southwest Hospital, Army Military Medical University, Chongqing 400038, China



© The Author(s) 2023. **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.



**Fig. 9** LPS increases the SRA-dependent AuNPs uptake in macrophages to mediate apoptosis induction. **A** Murine peritoneal macrophages were treated with AuNPs and LPS, separately or in combination, for 4 h. The intracellular distribution of AuNPs was visualized via TEM imaging (labeled by red circles). **B** Murine peritoneal macrophages or AML-12 cells were treated with AuNPs alone or in combination with LPS for 4 h. The content of Au per 10 mg cells was quantified via ICP-MS. **C, D** Macrophages were treated with AuNPs alone or together with LPS for 4 h. Cell homogenates were processed via gradient centrifugation to obtain the P0.5, P5, P100, S100, and Pellet fractions. The Au content in these fractions was detected via ICP-MS. **E** Macrophages were treated as in **C** and **D**. The mRNA expression of SR-A1 was detected via RT-PCR. **F** Macrophages were pre-treated with dextran sulfate or cytochalasin D for 2 h, followed by LPS and AuNP treatment for another 4 h. The Au content per 10 mg cells was quantified via ICP-MS. **G, H** Cells were pre-treated with dextran sulfate **G** and cytochalasin D **H** for 2 h and then treated with LPS and AuNPs as indicated in **C**. Apoptosis was examined via Annexin V-FITC/PI staining. N.S., no significance, \*: P < 0.05, \*\*: P < 0.01

Published online: 26 July 2023

**Publisher's Note**

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

**Reference**

1. Yang Y, Fan S, Chen Q, Yongling Lu, Zhu Y, Chen X, Xia L, Huang Q, Zheng J, Liu X. Acute exposure to gold nanoparticles aggravates lipopolysaccharide-induced liver injury by amplifying apoptosis via ROS-mediated macrophage-hepatocyte crosstalk. *J Nanobiotechnol.* 2022;20(1):37. <https://doi.org/10.1186/s12951-021-01203-w>.