

CORRECTION

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# Correction: Zafirlukast ameliorates lipopolysaccharide and bleomycin-induced lung inflammation in mice

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Following publication of the original article [1], the authors identified an error in Fig. 1A (H&E lung) and Fig. 4. The correct figures are given below.

The original article has been corrected.

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The online version of the original article can be found at <https://doi.org/10.1186/s12890-024-03273-6>.

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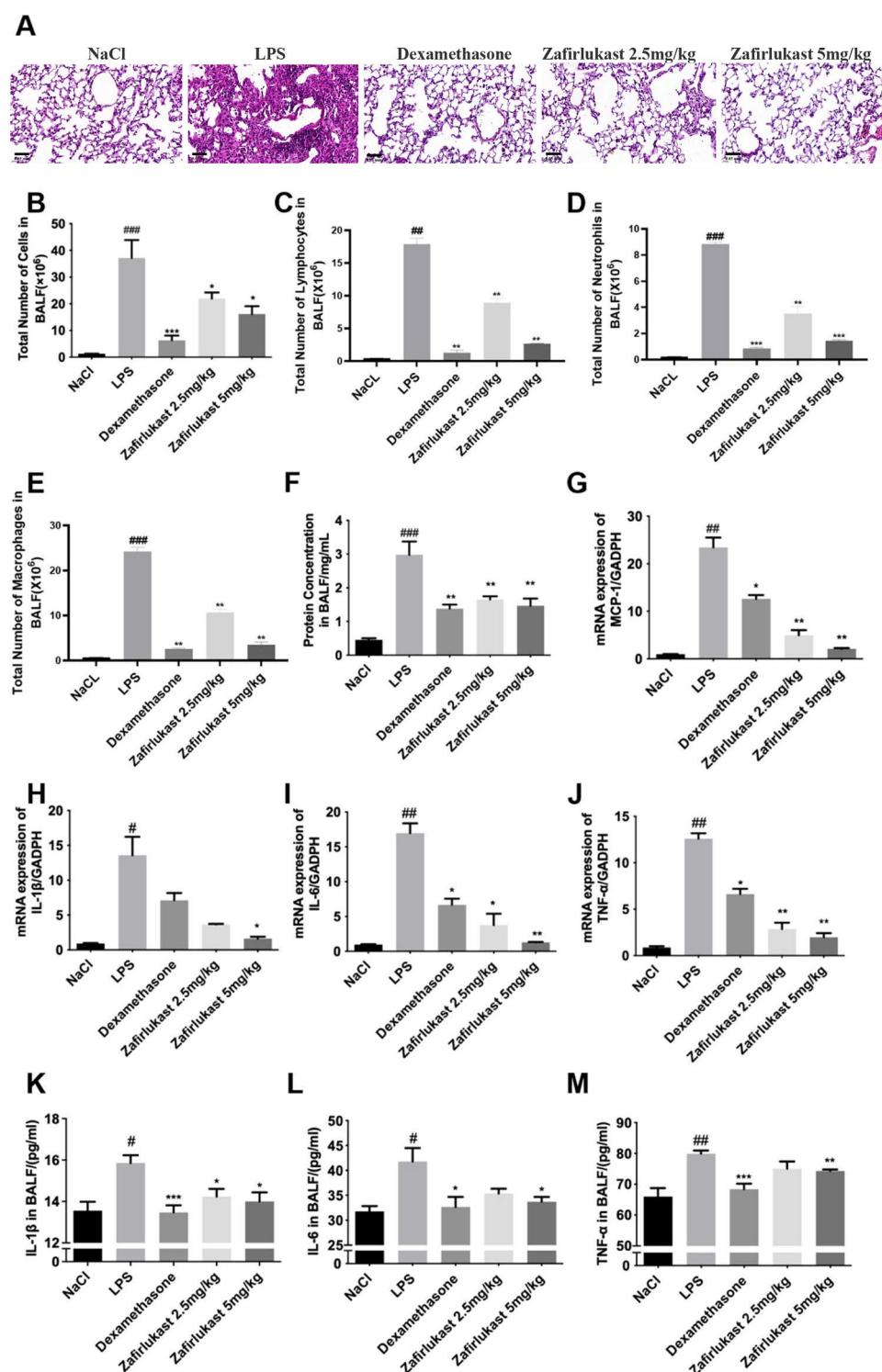
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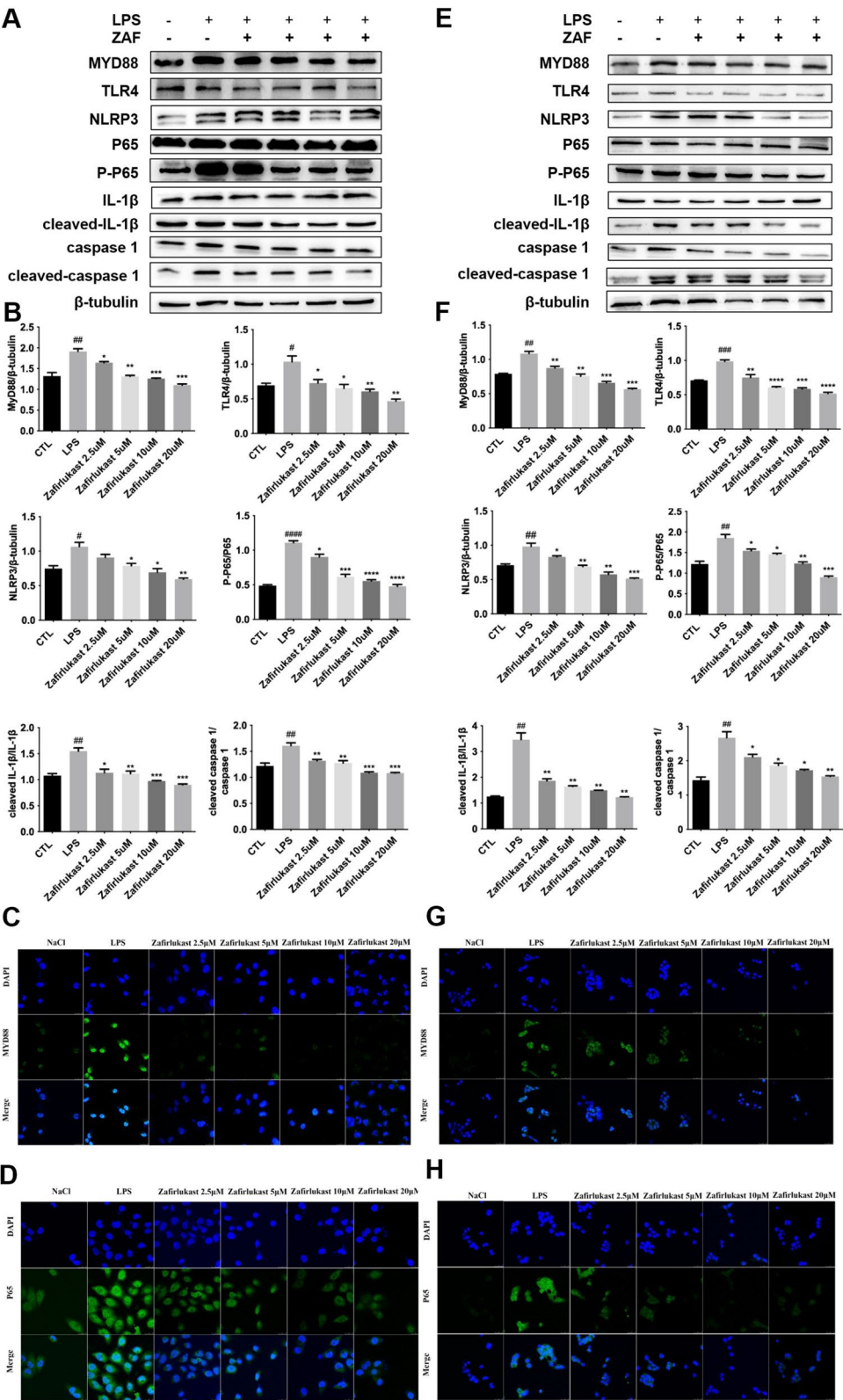
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**Fig. 1** Zafirlukast attenuates acute lung injury induced by LPS in mice. A H&E staining of lung tissue segments (Scale: 50  $\mu$ m) and the BALF cell of mice (Scale: 50  $\mu$ m). B Total cell counts in BALF of mice. C-E Number of inflammatory cells, lymphocytes, neutrophils, and macrophages. F Protein concentration in BALF of mice. G-J MCP-1, IL-1 $\beta$ , IL-6 and TNF- $\alpha$  mRNA expression in lung tissues of mice. K-M Measure the protein level of inflammatory factors IL-1 $\beta$ , IL-6 and TNF- $\alpha$  in BALF using ELISA. The data which presented in this study are expressed as mean  $\pm$  SD ( $n = 3$ ). the statistical analysis revealed significant differences when compared with the control group, denoted as # $P < 0.05$ , ## $P < 0.01$ , ### $P < 0.001$ , \* $P < 0.05$ , \*\* $P < 0.01$ , \*\*\* $P < 0.001$  as compared with model group



**Fig. 4** (See legend on next page.)

(See figure on previous page.)

**Fig. 4** Zafirlukast effectively inhibits the LPS-induced inflammation of epithelial cells through TLR4/NF-KB/NLRP3 pathway in vitro. **(A-B)** A549 cells were subjected to different concentration of LPS or Zafirlukast (2.5μM, 5μM, 10μM, 20μM) for a duration of 24 h, Western blotting was then performed for assessing the protein expression levels of MyD88, TLR4, P65, P-P65 as well as inflammasome pathway-related protein NLRP3, caspase1, Cleaved-caspase1, IL-1β and Cleaved-IL-1β in the cells **(A)**. The quantification of optical density was also determined **(B)**. **(C-D)** Additionally, the activation of MYD88 **(C)** and P-P65 **(D)** by immunofluorescence in A549 cells subjected to LPS or Zafirlukast (2.5μM, 5μM, 10μM, 20μM) for 24 h (Scale: 25 μm). **(E-F)** MLE-12 cells were subjected to LPS or Zafirlukast (2.5μM, 5μM, 10μM, 20μM) for 24 h, and the Western blotting was used to assess the MyD88, TLR4, P65, P-P65 and the inflammasome pathway related protein NLRP3, caspase1, Cleaved-caspase1, IL-1β and Cleaved-IL-1β protein expression levels in the cells **(E)**. The optical density was quantified and presented **(F)**. **(G-H)** MLE-12 cells were subjected to LPS or Zafirlukast (2.5μM, 5μM, 10μM, 20μM) for 24 h, and the activation of MYD88 **(G)** and P-P65 **(H)** was assessed through immunofluorescence (Scale: 25 μm). Data are shown as mean ± SD ( $n = 3$ ). Statistical significance was denoted as follows: # $P < 0.05$ , ## $P < 0.01$ , ### $P < 0.001$  compared with control group, \* $P < 0.05$ , \*\* $P < 0.01$ , \*\*\* $P < 0.001$ , \*\*\*\* $P < 0.0001$  compared with model group

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## References

1. Xue T, Zhang Q, Zhang T, et al. Zafirlukast ameliorates lipopolysaccharide and bleomycin-induced lung inflammation in mice. *BMC Pulm Med*. 2024;24:456. <https://doi.org/10.1186/s12890-024-03273-6>.