Respiratory Research

CORRECTION

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Correction to: Shp2 positively regulates cigarette smoke-induced epithelial mesenchymal transition by mediating MMP-9 production

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Following publication of the original article [1], the authors identified an error in Fig. 6B. During the preparation of the figures in the above article, the authors regret that an error occurred during the assembly of Fig. 6B. Erroneous duplication of E-cadherin images were mistakenly assembled for MMP-9$^+$ PHPS-1$^+$ and MMP$^+$ Shp2(siRNA)$^+$ group.

The authors apologize for any inconvenience caused, and have confirmed that the conclusions were not affected.

The correct Fig. 6B is given in this correction article.

The original article can be found online at https://doi.org/10.1186/s12931-020-01426-9.

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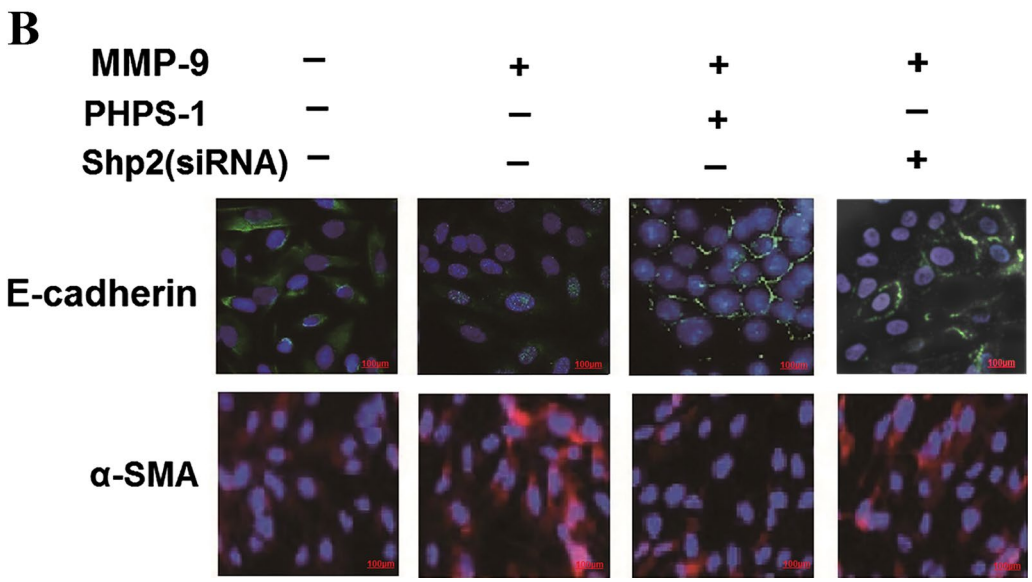

Fig. 6 MMP-9 inhibition, Shp2 inhibition or Shp2 knockdown suppresses the expression of EMT-related factors induced by recombinant MMP-9 in NCI-H292 cells. **a** NCI-H292 cells with no treatment exhibit a pebble-like shape and display cell-cell contacts consistent with an epithelial morphology. The cells treated with human recombinant MMP-9 (2 μg/ml, 48 h) exhibit a fibroblast-like morphology with cellular elongation and reduction of cell-cell contacts. SB-3CT (1 μM) prevents the MMP-9-induced cellular changes and preserves normal epithelial morphology. The cells treated with recombinant MMP-9 for 48 h exhibit weaker expression of E-cadherin and stronger expression of α-SMA, compared with control. MMP-9 inhibition by SB-3CT (1 μM) alleviates the recombinant MMP-9 induced changes of E-cadherin and α-SMA expression. Scale bar = 100 μm. **b** Pharmacological inhibition or Shp2 knock down reverses the recombinant MMP-9 induced changes of E-cadherin and α-SMA expression. Scale bar = 100 μm. **c** MMP-9 inhibition by SB-3CT (1 μM) prevents the recombinant MMP-9 (2 μg/ml) induced decreases in E-cadherin expression and increases in α-SMA mRNA expression assessed by real-time PCR. $n = 3$ per group. $^{\#}p < 0.05$ compared with control (no treatment); $^{*}p < 0.05$ compared with cells treated with recombinant MMP-9. **d** Shp2 inhibition by PHPS1 (10 μM) or knock down by siRNA prevents the recombinant MMP-9 (2 μg/ml) induced decreases in E-cadherin expression and increases in α-SMA protein expression assessed by western blot. Data are expressed as mean ± SEM of three independent experiments. $n = 3$ per group. $^{\#}p < 0.05$ compared with control (no treatment); $^{*}p < 0.05$ compared with cells treated with recombinant MMP-9. At least three independent experiments were completed for each group assessment. Data are presented as the mean ± SEM. Statistical significance is determined by one-way ANOVA followed by the Student-Newman-Keuls test

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