



## Correction to: Regulation of JAK/STAT signal pathway by miR-21 in the pathogenesis of juvenile idiopathic arthritis

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The originally published version of this article contained some errors in (1) the graphs of Figs. 2c, 2f–j, 4, and 6b; (2) the legends of Figs. 1–4, and 6. The corrected figures and legends are given in this Correction.

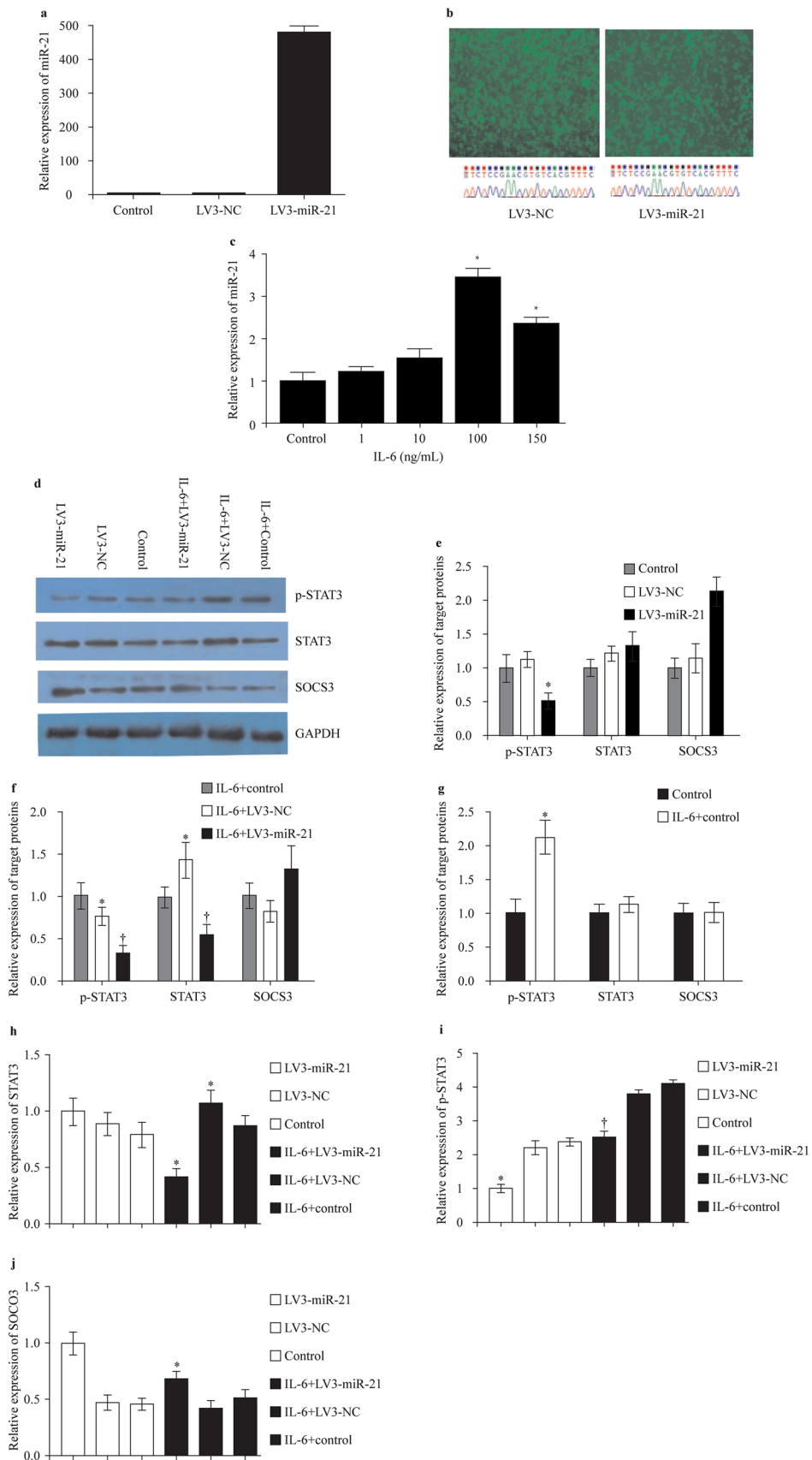
**Fig. 2** Transfection of LV3-miR-21 suppressed p-STAT3/STAT3 protein expression. **a, b** The titer of miR-21 in RASFs after LV3-miR-21 transfection; **c** OD value of RASFs with the simulation of IL-6 (\* $P < 0.05$ , IL-6 100 ng/mL vs. control group, IL-6 150 ng/mL vs. control group); **d–j** The expression of STAT3/p-STAT3/SOCS3 in RASFs after transfection of LV3-miR-21 with the simulation of IL-6 (**d**  $P < 0.05$ ,

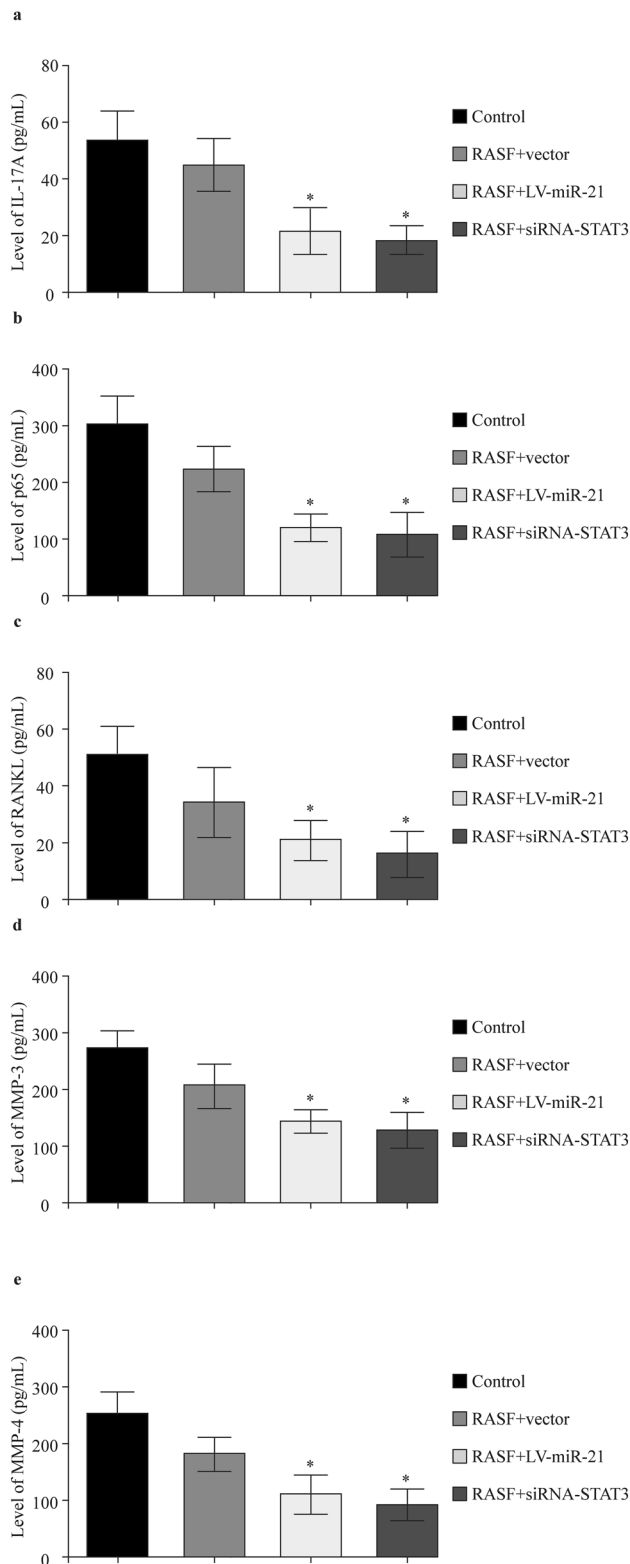
IL-6 + LV3-miR-21 vs. IL-6 + LV3-NC group; **e** \* $P < 0.05$ , LV3-miR-21 vs. LV3-NC group, **f** \* $P < 0.05$ , IL-6 + LV3-NC vs. IL-6 + control group, **†**  $P < 0.05$ , IL-6 + LV3-miR-21 vs. IL-6 + LV3-NC group; **g** \* $P < 0.05$ , IL-6 + control vs. control group; **h** \* $P < 0.05$ , IL-6 + LV3-miR-21 vs. IL-6 + control group, IL-6 + LV3-NC vs. IL-6 + control group; **i** \* $P < 0.05$ , LV3-miR-21 vs. control group, **†**  $P < 0.05$ , IL-6 + LV3-miR-21 vs. LV3-miR-21 group; **j** \* $P < 0.05$ , IL-6 + LV3-miR-21 vs. LV3-miR-21 group). *STAT3* signal transducers and activators of transcription 3, *SOCS3* suppressor of cytokine signaling 3, *IL-6* interleukin-6, *RASF* rheumatoid arthritis fibroblast-like synovial cell, *NC* negative control.

The original article can be found online at <https://doi.org/10.1007/s12519-019-00268-w>.

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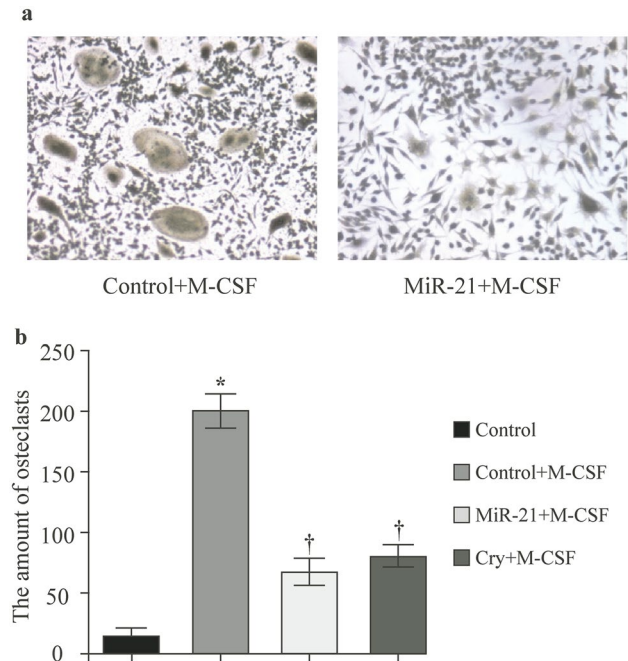
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**Fig. 4** Enhancing miR-21 or silencing STAT3 could suppress the expression of IL-17A (a), p65 (b), RANKL (c), MMP-3 (d), and MMP-4 (e). *STAT3* signal transducers and

activators of transcription 3, *IL* interleukin, *RASF* rheumatoid arthritis fibroblast-like synovial cell, *MMP* matrix metalloproteinase, *RANKL* receptor activator of nuclear factor- $\kappa$ B ligand. \* $P < 0.05$ , RASF + LV-miR-21 vs. RASF + vector group, RASF + siRNA-STAT3 vs. RASF + vector group



**Fig. 6** M-CSF was used for inducing the RASFs to osteoclasts. **a** The TRAP staining results showed that the amounts of osteoclasts in miR-21 mimics group were significantly lower than the control group ( $P < 0.05$ , miR-21 + M-CSF vs. control + M-CSF group); **b** Both miR-21 mimics and cryptotanshinone (cry) could decrease the amount of osteoclasts with no difference between these two groups (\* $P < 0.05$ , control + M-CSF vs. control group, † $P < 0.05$ , miR-21 + M-CSF vs. control + M-CSF group, cry + M-CSF vs. control + M-CSF group). *RASF* rheumatoid arthritis fibroblast-like synovial cell, *M-CSF* macrophage colony-stimulating factor

The corrected legends of Figs. 1 and 3 are as follows:

**Fig. 1** Expression of miR-21 (a), *STAT3* (b) and *SOCS3* (c) mRNA of PBMCs and their correlation (d, e) in JIA. *sJIA* systemic juvenile idiopathic arthritis, *pJIA* polyarticular juvenile idiopathic arthritis, *STAT3* signal transducers and activators of transcription 3, *SOCS3* suppressor of cytokine signaling 3, *PBMCs* peripheral blood mononuclear cells. \* $P < 0.05$ , sJIA vs. control group, pJIA vs. control group

**Fig. 3** Enhancing miR-21 or silencing *STAT3* could suppress the IL-6 induced regulation of MMP-3 (a), MMP-4 (b), RANKL (c), and NF- $\kappa$ B (d). *STAT3* signal transducers and activators of transcription 3, *IL-6*

interleukin-6, *RASF* rheumatoid arthritis fibroblast-like synovial cell, *MMP* matrix metalloproteinase, *RANKL* receptor activator of nuclear factor- $\kappa$ B ligand, *NF- $\kappa$ b* nuclear factor- $\kappa$ B. \* $P < 0.05$ , RASF + LV-miR-21 vs. RASF + vector group, RASF + siRNA-STAT3 vs. RASF + vector group

In the paragraph under the section “Results—Transfection of LV3-miR-21 suppressed p-STAT3/STAT3 protein expression”: The sentence “Then RASFs were stimulated with IL-6 (0, 10, 100, 150  $\mu$ g/mL) for 4 h (Fig. 2c)” should read as “Then RASFs were stimulated with IL-6 (0, 10, 100, 150 ng/mL) for 4 h (Fig. 2c)”.