## scientific reports



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## OPEN Author Correction: Knockdown of mechanosensitive adaptor Hic-5 ameliorates post-traumatic osteoarthritis in rats through repression of MMP-13

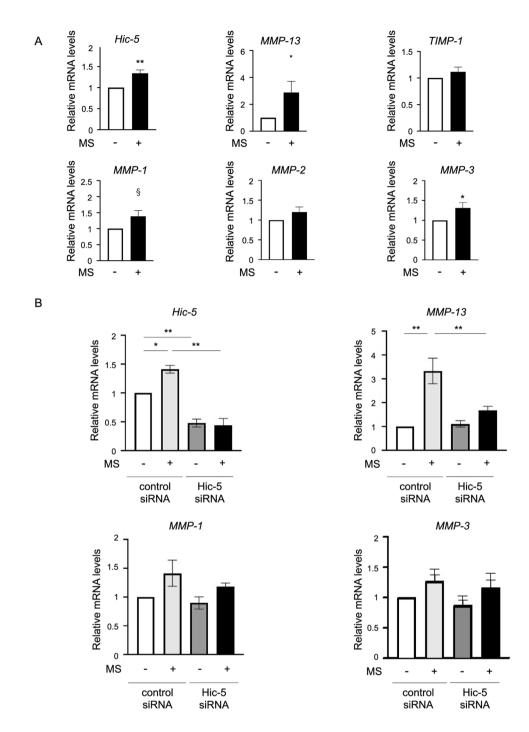
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Correction to: Scientific Reports https://doi.org/10.1038/s41598-023-34659-x, published online 08 May 2023

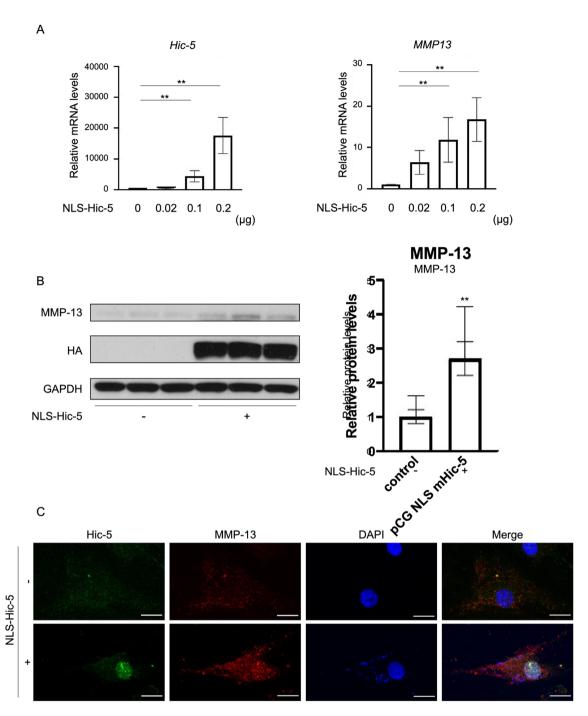
The original version of this Article contained errors in Figures 2 and 4, where panels 2B and 4B respectively did not display correctly.

The original Figures 2 and 4 and accompanying legends appear below.

The original Article has been corrected.



**Figure 2.** Attenuation of mechanical stress induced-matrix metalloproteinase (MMP-13) expression by Hic-5 knockdown in human chondrocytes. (**A**) mRNA levels of *Hic-5*, *MMPs*, and tissue inhibitor of matrix metalloproteinase-1 (*TIMP-1*) in human chondrocytes exposed to mechanical stress (MS+) for 30 min or untreated (MS-). Cells were collected at 1 h after mechanical stress. (n = 8 biological replicates). (**B**) Changes in gene expression in response to Hic-5 knockdown in human chondrocytes with or without mechanical stress. Human chondrocytes were treated with Hic-5 siRNA (10 nM) or control siRNA (10 nM) for 24 h before stimulation by mechanical stress. (n = 4 biological replicates). Relative levels of mRNA were determined by quantitative reverse transcription-polymerase chain reaction. Values are the mean  $\pm$  SEM. \*P<0.05; \*P<0.01; \*P<0.01; \*P<0.05; by the unpaired P test in (**A**) or one-way analysis of variance with Tukey's test for multiple comparisons in (**B**).



**Figure 4.** Upregulation of MMP-13 expression by nuclear Hic-5 in human chondrocytes. (**A**) Induction of *MMP-13* in human chondrocytes exogenously expressing Hic-5 tagged with a nuclear localization signal (NLS-HA-Hic-5). Human chondrocytes were transfected with the NLS-HA-Hic-5 expression vector at the concentrations shown in the graph for 24 h. Hic-5 and MMP-13 expression was measured by quantitative polymerase chain reaction (n = 3 biological replicates). (**B**) Western blot of MMP-13 in human chondrocytes transfected with or without 0.2 μg of NLS-Hic-5 (n = 3 biological replicates). Values are the mean ± SEM.

\*\*P<0.01 by the Kruskal–Wallis test, followed by Dunn's multiple comparisons test in (**A**) or the unpaired t test in (**B**). Western blotting images were cropped, and full-length blots are included in Supplementary Fig. 1. (**C**) Double immunofluorescence staining of Hic-5 (green) and MMP-13 (red) in human chondrocytes transfected with or without NLS-HA-Hic-5. Nuclei were counterstained with DAPI (blue). Representative image was selected from 3 biological replicates. Original magnification: × 400. Bar = 50 μm.

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