# CORRECTION Open Access



# Correction: JMJD2C promotes colorectal cancer metastasis via regulating histone methylation of MALAT1 promoter and enhancing \( \beta \)-catenin signaling pathway

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# Correction: J Exp Clin Cancer Res 38, 435 (2019) https://doi.org/10.1186/s13046-019-1439-x

Following publication of the original article [1], errors were identified in Figs. 2, 3, 7 and S1; specifically:

- Figure 2F: an image for the shRNA/JMJD2C group (72h) was incorrectly used for a representative picture; the correct image is now used; correspondingly, the quantitative graph in Fig. 2G has also been corrected
- Figure 3B: one set of immunofluorescence pictures for shRNA/NC group were incorrectly used for the representative pictures; the correct images are now used
- Figure 7: the order of shRNA/NC group and EmptyVector group for c-Myc was accidentally reversed in typesetting, which was inconsistent with the JMJD2C images in Figure 6 and ITGBL1 images in Figure 7; both sets of images have now been transposed to correct the error

The original article can be found online at https://doi.org/10.1186/s13046-019-1439-x.

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 Figure S1D: an image for Empty Vector group was incorrectly used for a representative picture; the correct image is now used; correspondingly, the quantitative graph in Figure S1E has also been corrected.

The corrections do not have any effect on the final conclusions of the paper.

## **Supplementary Information**

The online version contains supplementary material available at https://doi.org/10.1186/s13046-022-02407-0.

**Additional file 1: Figure S1.** JMJD2C promoted the metastasis of CRC LoVo cells. a-c Real time PCR and western blotting were performed to confirm the gene silencing and overexpressing efficiency for JMJD2C. LoVo was transiently transfected with shRNA/NT vector, shRNA/JMJD2C vector, empty overexpression vector, or JMJD2C overexpression vector. d Migration assays of LoVo cells transfected with shRNA/NT, shRNA/ JMJD2C, empty vector, or JMJD2C overexpression vector, respectively. e Numbers of migrated cells are shown as mean  $\pm$  SD; n=3.\*, P<0.05; \*\*\*, P<0.01 (t test).



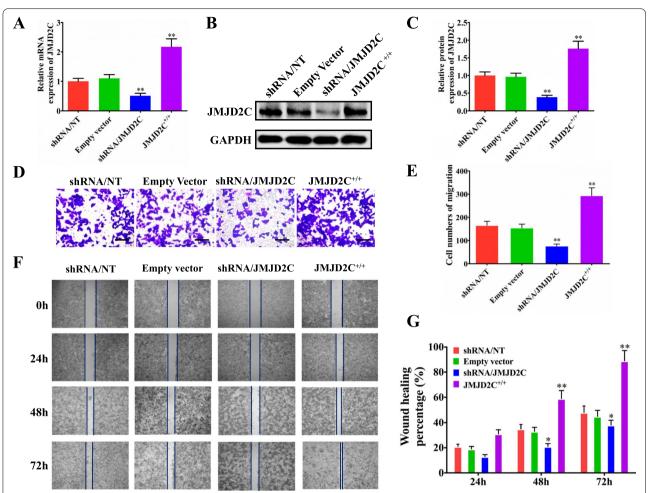
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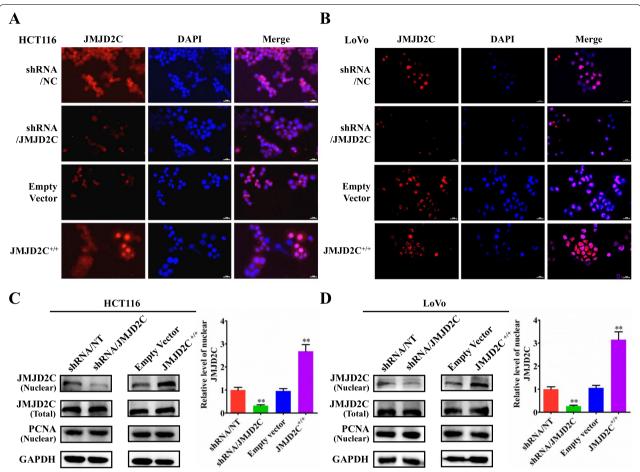
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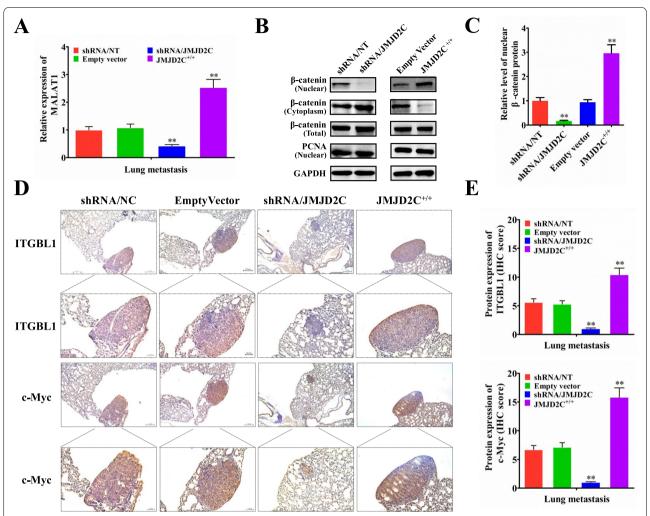
**Fig. 2** JMJD2C promoted the metastasis of CRC cells in vitro. **a-c** Real time PCR and western blotting were performed to confirm the gene silencing and overexpressing efficiency for JMJD2C. HCT116 was transiently transfected with shRNA/NT vector, shRNA/JMJD2C vector, empty overexpression vector, or JMJD2C overexpression vector. **d** Migration assays of HCT116 cells transfected with shRNA/NT, shRNA/JMJD2C, empty vector, or JMJD2C overexpression vector, respectively. **e** Numbers of migrated cells are shown as mean  $\pm$  SD; n = 3. **f-g** Wound healing assay was used to evaluate the effect of JMJD2C on migration of HCT116 cells. \*, P < 0.05; \*\*, P < 0.05; \*\*, P < 0.01 (t test)

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**Fig. 3** Translocation of JMJD2C protein from the cytoplasm into the nuclei in CRC cells in vitro. **a-b** Immunofluorescence detection of JMJD2C protein in HCT116 or LoVo cells transiently transfected with shRNA/NT vector, shRNA/JMJD2C vector, empty overexpression vector, or JMJD2C overexpression vector. **c-d** Western blot and quantitative assay of JMJD2C protein (nuclear and whole cell lysates) in HCT116 or LoVo cells transiently transfected with shRNA/NT vector, shRNA/JMJD2C vector, empty overexpression vector, or JMJD2C overexpression vector. \*, P < 0.05; \*\*, P < 0.01 (t test)

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**Fig. 7** JMJD2C elevated the expression of MALAT1 and β-catenin signaling related proteins in CRC lung metastasis mice models. **a** Real-time PCR was performed to detect the expression of MALAT1 in lung metastatic nodules from 6 mice subjected to the indicated treatments. **b-c** Western blot and quantitative assay of β-catenin protein (nuclear, cytoplasm and whole cell lysates) in the lung metastatic tissues from 6 mice subjected to the indicated treatments. **d-e** Immunohistochemical and quantitative analysis of ITGBL1 and c-Myc proteins on consecutive tissue microarray slides of lung metastatic nodules from 6 mice subjected to the indicated treatments.\*, P < 0.05; \*\*\*, P < 0.01 (t test)

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