CORRECTION

Correction: CUL4B promotes gastric cancer invasion and metastasis-involvement of upregulation of HER2

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Following the publication of this article an error was noted in Fig. 5k. The same transwell images were included for the Flag4B group and Flag4B+NC group. The correct image has now been added for the Flag4B+NC group. The corrected version of Fig. 5 is included below.

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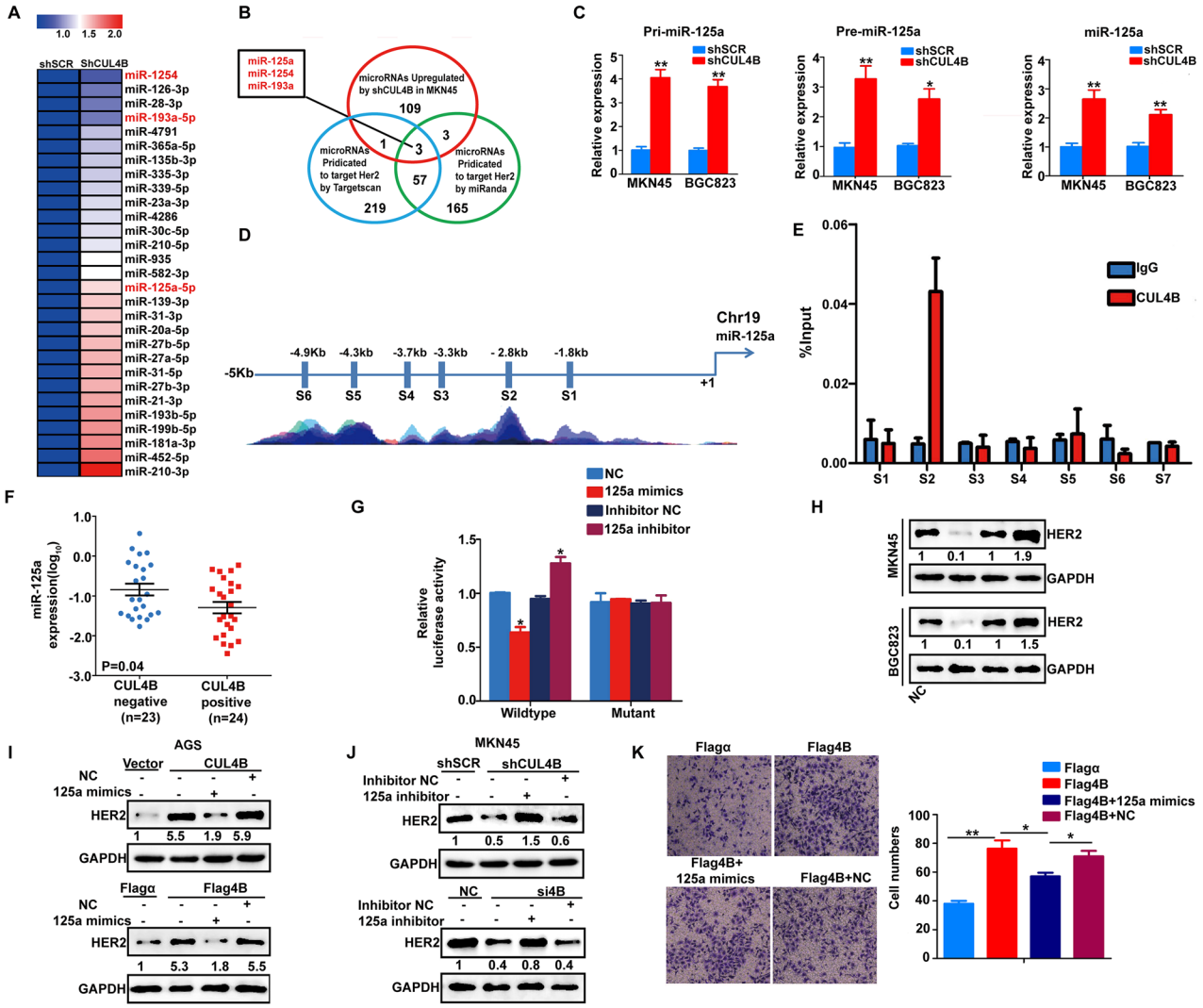

Fig. 5 CUL4B promotes HER2 expression via repressing miR-125a. a MiRNA profiling analysis of MKN45 cells in which CUL4B was knocked down compared with MKN45-shSCR cells. Pseudo-colors indicate expression levels from low to high (blue to red). shSCR: knockdown scramble control; shCUL4B: knockdown of CUL4B. **b** A Venn diagram depicting three miRNAs that were upregulated by CUL4B knockdown in MKN45 cells, predicted to target HER2 proteins by two prediction algorithms (TargetScan and miRanda). **c** Expression of primary and mature miR-125a expression was assessed by RT–qPCR in MKN45 and BGC823 cells. shRNA knockdown of CUL4B significantly increased expression levels of primary and mature miR-125a. $*P < 0.05$, $**P < 0.01$, based on Student's *t*-test. **d** Schematic diagram showing location of CUL4B-binding sites of miR-125a regulatory region. S1, S2, S3, S4, S5 and S6 represented CUL4B-binding site, S7 was used as negative control and was located in the intron 4 of miR-125a. **e** ChIP assays with an anti-CUL4B or negative control (anti-IgG) antibodies showed CUL4B binding to the miR-125a promoter in MKN45 cells. The *y* axis represents the % input of the promoter fragments captured by the two different antibodies. S1–S6 regions and S7 were used as negative control. Site S2 of miR-125a carry binding sites for CUL4B, whereas no signal was detected at the miR-125a distal promoter (site S7). **f** MiR-125a expression was inversely correlated with CUL4B expression in human GC cases ($n = 47$). These cases were categorized into CUL4B-positive and CUL4B-negative based on CUL4B expression level. The expression of miR-125a was measured by RT–qPCR assay and CUL4B-positive patients have lower miR-125a expression compared to CUL4B-negative patients. **g** HER2 is a direct target of miR-125a. Overexpression of miR-125a suppresses HER2 3′-UTR but not mutant 3′-UTR luciferase activities. $*P < 0.05$, based on Student's *t*-test. **h** The protein levels of HER2 were assessed by western blot analysis in MKN45 and BGC823 cells transfected with miR-125a inhibitor, miR-125a mimics or negative control. Band intensity given underneath gel image was measured using ImageJ software, presented as fold change compared with controls for **h**–**j**, respectively. **i** AGS cells were stably/transiently transfected with indicated RNA and plasmids, respectively. Seventy-two hours later, CUL4B protein levels were determined by western blot. **j** MKN45 cells were stably/transiently transfected with indicated RNA and plasmids, respectively. Seventy-two hours later, CUL4B protein levels were determined by western blot. **k** AGS cells were transiently transfected with indicated RNA and plasmid. Forty-eight hours later migration ability of cells was examined by transwell migration assay. $*P < 0.05$, $**P < 0.01$, based on Student's *t*-test. ChIP, chromatin immunoprecipitation.