Journal of Hematology & Oncology

CORRECTION

Open Access

Correction to: The lncRNA LAMP5-AS1 drives leukemia cell stemness by directly modulating DOT1L methyltransferase activity in MLL leukemia

Wen-Tao Wang[1], Tian-Qi Chen[1], Zhan-Cheng Zeng[1], Qi Pan[1], Wei Huang[1], Cai Han[1], Ke Fang[1], Lin-Yu Sun[1], Qian-Qian Yang[1], Dan Wang[2], Xue-Qun Luo[3], Yu-Meng Sun[1*] and Yue-Qin Chen[1]

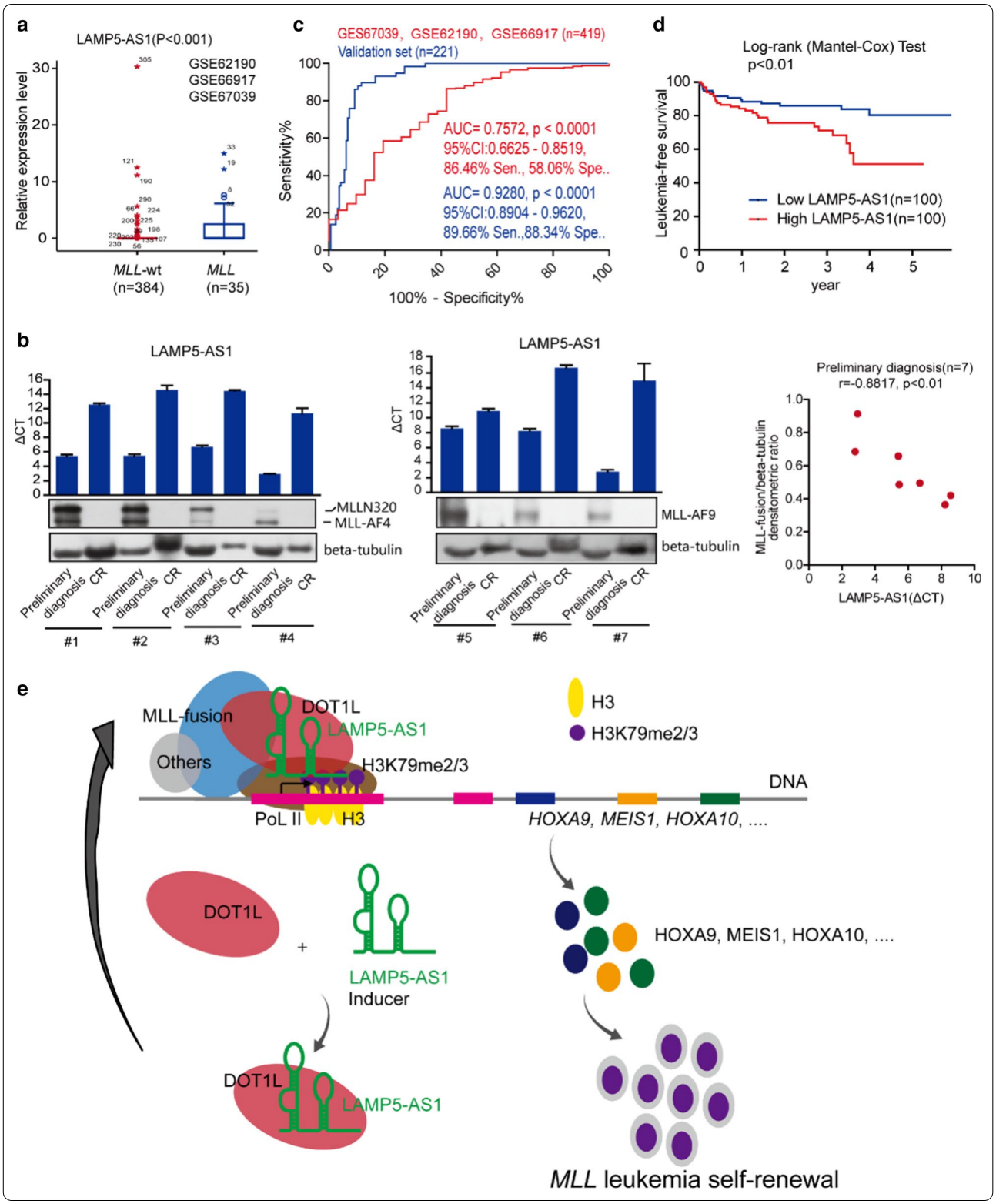
Correction to:
Journal of Hematology & Oncology (2020) 13:78
https://doi.org/10.1186/s13045-020-00909-y

The original article [1] contains an error in Fig. 6b for the image of western blot panels.

The correct presentation of Fig. 6b is shown below.

The original article can be found online at https://doi.org/10.1186/s13045-020-00909-y.

*Correspondence: fengzhihualuo@163.com
[1] MOE Key Laboratory of Gene Function and Regulation, State Key Laboratory for Biocontrol, School of Life Sciences, Sun Yat-Sen University, Guangzhou 510275, China
Full list of author information is available at the end of the article


a
LAMP5-AS1(P<0.001)
GSE62190
GSE66917
GSE67039
Relative expression level
MLL-wt (n=384)
MLL (n=35)
c
GES67039, GSE62190, GSE66917 (n=419)
Validation set (n=221)
AUC= 0.7572, p < 0.0001
95%CI:0.6625 - 0.8519,
86.46% Sen., 58.06% Spe..
AUC= 0.9280, p < 0.0001
95%CI:0.8904 - 0.9620,
89.66% Sen.,88.34% Spe..
Sensitivity%
100% - Specificity%
d
Log-rank (Mantel-Cox) Test
p<0.01
Leukemia-free survival
Low LAMP5-AS1(n=100)
High LAMP5-AS1(n=100)
year
b
LAMP5-AS1
ΔCT
MLLN320
MLL-AF4
beta-tubulin
Preliminary diagnosis
CR
#1
#2
#3
#4
LAMP5-AS1
MLL-AF9
beta-tubulin
#5
#6
#7
Preliminary diagnosis(n=7)
r=-0.8817, p<0.01
MLL-fusion/beta-tubulin densitometric ratio
LAMP5-AS1(ΔCT)
e
MLL-fusion
DOT1L
LAMP5-AS1
Others
H3K79me2/3
H3
H3K79me2/3
DNA
PoL II
H3
HOXA9, MEIS1, HOXA10, ...
DOT1L
+
LAMP5-AS1
Inducer
HOXA9, MEIS1, HOXA10, ...
DOT1L
LAMP5-AS1
MLL leukemia self-renewal

(See figure on previous page.)
Fig. 6 LAMP5-AS1 could serve as a prognostic predictor of *MLL* leukemia. **a** Reanalysis of the GSE62190, GSE66917 and GSE67039 data sets with 419 patient samples classified into *MLL* leukemia and *MLL-wt* subtypes. LAMP5-AS1 expression presented the highest levels in *MLL* leukemia. (Mann–Whitney test, $p < 0.001$). **b** LAMP5-AS1 and MLL fusion protein levels in 7 paired *MLL* leukemia patients (initial diagnosis versus complete response, CR), and the MLL fusion protein levels were positively correlated with those of LAMP5-AS1 ($\triangle$CT) at preliminary diagnosis (Pearson r = -0.8817, $p < 0.01$). Relative expression (ΔCT) was used to quantify LAMP5-AS1 expression relative to a housekeeping gene (GAPDH). **c** ROC curve analysis showed that LAMP5-AS1 had high AUC values of 0.7572 (95% confidence interval (CI): 0.6625–0.8519) and 0.9280 (95% CI: 0.8904–0.9620, $p < 0.001$) in the GSE62190, GSE66917 and GSE67039 data sets (n = 35 for *MLL* leukemia and n = 384 for *MLL*-wt) and validation set (n = 58 for *MLL* and n = 163 for *MLL*-wt), respectively, with considerably significant sensitivity (sen.) and specificity (spe.) at the optimal cutoff point calculated by Youden's index. **d** The 5-year leukemia-free survival of patients with a high expression level of LAMP5-AS1 is less than that of patients with a low LAMP5-AS1 level in *MLL* leukemia (n = 200, $p < 0.01$). **e** A working model proposed for the specific activation of DOT1L/H3K79 methyltransferase by LAMP5-AS1 binding to regulate *MLL* leukemia self-renewal

Author details
[1] MOE Key Laboratory of Gene Function and Regulation, State Key Laboratory for Biocontrol, School of Life Sciences, Sun Yat-Sen University, Guangzhou 510275, China. [2] Sun Yat-Sen University Cancer Center, State Key Laboratory of Oncology in South China, Guangdong 510060, China. [3] The First Affiliated Hospital of Sun Yat-Sen University, Guangzhou 510080, China.

Published online: 11 March 2021

Reference
1. Wang W-T, et al. The lncRNA LAMP5-AS1 drives leukemia cell stemness by directly modulating DOT1L methyltransferase activity in MLL leukemia. J Hematol Oncol. 2020;13:78. https://doi.org/10.1186/s13045-020-00909-y.