Check for updates

OPEN ACCESS

EDITED AND REVIEWED BY Ben Goult, University of Kent, United Kingdom

*CORRESPONDENCE

Tianhua Zhou, ⊠ tzhou@zju.edu.cn Yuehong Yang, ⊠ yhyang@zju.edu.cn

[†]These authors have contributed equally to this work

SPECIALTY SECTION

This article was submitted to Cell Adhesion and Migration, a section of the journal Frontiers in Cell and Developmental Biology

RECEIVED 11 February 2023 ACCEPTED 20 March 2023 PUBLISHED 28 March 2023

CITATION

Liu M, Xu Z, Zhang C, Yang C, Feng J, Lu Y, Zhang W, Chen W, Xu X, Sun X, Yang M, Liu W, Zhou T and Yang Y (2023), Corrigendum: NudC L279P mutation destabilizes filamin a by inhibiting the Hsp90 chaperoning pathway and suppresses cell migration. *Front. Cell Dev. Biol.* 11:1163790. doi: 10.3389/fcell.2023.1163790

COPYRIGHT

© 2023 Liu, Xu, Zhang, Yang, Feng, Lu, Zhang, Chen, Xu, Sun, Yang, Liu, Zhou and Yang. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

Corrigendum: NudC L279P mutation destabilizes filamin a by inhibiting the Hsp90 chaperoning pathway and suppresses cell migration

Min Liu^{1†}, Zhangqi Xu^{1†}, Cheng Zhang¹, Chunxia Yang¹, Jiaxing Feng¹, Yiqing Lu¹, Wen Zhang¹, Wenwen Chen¹, Xiaoyang Xu¹, Xiaoxia Sun¹, Mingyang Yang¹, Wei Liu¹, Tianhua Zhou^{1,2,3,4}* and Yuehong Yang¹*

¹Department of Cell Biology, and Institute of Gastroenterology of the Second Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China, ²The Cancer Center of the Second Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China, ³Collaborative Innovation Center for Diagnosis and Treatment of Infectious Diseases, Hangzhou, China, ⁴Department of Molecular Genetics, University of Toronto, Toronto, ON, Canada

KEYWORDS

cell migration, filamin A, Hsp90, NudC-L279P, protein stability

A Corrigendum on

NudC L279P mutation destabilizes filamin a by inhibiting the Hsp90 chaperoning pathway and suppresses cell migration

by Liu M, Xu Z, Zhang C, Yang C, Feng J, Lu Y, Zhang W, Chen W, Xu X, Sun X, Yang M, Liu W, Zhou T and Yang Y (2021). Front. Cell Dev. Biol. 9:671233. doi: 10.3389/fcell.2021.671233

In the published article, there were errors in Figure 6, Supplementary Figure S4 and the legend for Supplementary Figure S3. The representative image of the "GFP+Myc-Hsp90" group in Figure 6B and the image of the "GFP-NudC 0 h" in Supplementary Figure S4B were misused due to carelessness. In the figure legend for Supplementary Figure S3D, the description of the scale bar should be 50 μ m, but not 100 μ m. The corrected Figure 6, Supplementary Figure S4 and figure legend for Supplementary Figure S3 appear below.

The authors apologize for these errors and state that these mistakes do not change the scientific conclusions of the article in any way. The original article has been updated.

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.



FIGURE 6

Ectopic expression of Hsp90 reverses the defects induced by NudC-L279P overexpression. RPE-1 cells stably overexpressing GFP or GFP-NudC-L279P were transfected with Myc or Myc-Hsp90 and then subjected to the following analyses. (A) Western blotting analysis of the expression of the indicated proteins. GAPDH, a loading control. (B) Cells were fixed and stained with phalloidin. DNA was visualized with DAPI. Images were captured by immunofluorescence microscopy. Scale bar, 10 µm. Higher magnifications of the boxed regions are displayed. (C) Cells were fixed and stained with phalloidin after 3 h of scratching. Cells with lamellipodia were counted. (D) Scratch wound assays detected cell motility. The distance of scratch closure was measured by ImageJ software. (E,F) Transwell migration assays were performed to detect cell motility. Cells that migrated to the undersides of the filters were stained with 0.2% crystal violet and monitored with DIC microscopy. The number of migrated cells per transwell was calculated. Scale bar, 100 µm. (G,H) The migration tracks of individual cells were traced by Imaris 9.1.2 software. Euclidean distance and migration velocity were analyzed with Imaris 9.1.2 software. Quantitative data are presented as the means ± SD (at least three independent experiments). n, the sample size. *p < 0.05; **p < 0.01. Student's t-test.

Supplementary material

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fcell.2023.1163790/ full#supplementary-material

SUPPLEMENTARY FIGURE S3

Downregulation of filamin A suppresses cell migration in AGS cells. Cells treated with *filamin A* RNAi or not were subjected to the following analyses. **(A)** Western blotting analysis showed the expression of filamin **(A)**. GAPDH, a loading control. **(B,C)** Scratch wound assays revealed cell migration at the different time points. The scratch closure was recorded with DIC microscopy. Dashed lines indicated the approximate line of wound edges. The distance between the two edge lines was measured by Image3 software. Scale bar, 100 µm. **(D,E)** Transwell migration assays were performed to detect cell motility. Cells that migrated to the undersides of the filters were stained with 0.2% crystal violet and monitored with DIC microscopy. The number of migrated cells per transwell was counted. Scale bar, 50 µm. **(F–H)** The migration tracks of individual cells were traced by Imaris 9.1.2 software. Quantitative data are presented as the means \pm SD (at

least three independent experiments). n, the sample size. $^{*}P < 0.05;$ $^{**}P < 0.01.$ Student's t-test.

SUPPLEMENTARY FIGURE S4

Overexpression of NudC-L279P suppresses cell migration in AGS Cells. AGS cells stably overexpressing GFP, GFP-NudC, or GFP-NudC-L279P were subjected to following analyses. (A) Western blotting analysis of the expression levels of the indicated proteins. GAPDH, a loading control. (B,C) Scratch wound assays revealed cell migration at the different time points. The scratch closure was recorded with fluorescence microscopy. Dashed lines defined the approximate line of wound edges. The distance between the two edge lines was measured by ImageJ software. (D,E) Transwell migration assays were carried out to detect cell motility. Cells that migrated to the undersides of the filters were stained with 0.2% crystal violet and monitored with DIC microscopy. The number of migrated cells per transwell was counted. (F–H) The migration tracks of individual cells were traced by Imaris 9.1.2 software. Euclidean distance and migration velocity were analyzed with Imaris 9.1.2 software. Scale bars, 100 µm. Quantitative data are presented as the means + SD (at least three independent experiments). *n*, the sample size. *P < 0.05; **P < 0.01; ***P < 0.001; ns, not significant (P > 0.05). Student's t-test.

03