frontiers | Frontiers in Cell and Developmental Biology

CORRECTION
published: 13 April 2022
doi: 10.3389/fcell.2022.877291

Corrigendum: MicroRNA339 Targeting PDXK Improves Motor Dysfunction and Promotes Neurite Growth in the Remote Cortex Subjected to Spinal Cord Transection

Liu-Lin Xiong[1,2,3†], Yan-Xia Qin[4†], Qiu-Xia Xiao[2†], Yuan Jin[5], Mohammed Al-Hawwas[3], Zheng Ma[5], You-Cui Wang[1], Visar Belegu[6,7], Xin-Fu Zhou[3], Lu-Lu Xue[5], Ruo-Lan Du[1], Jia Liu[5], Xue Bai[2]* and Ting-Hua Wang[1,4,5]**

[1]Institute of Neurobiological Disease, Department of Anesthesiology, Translational Neuroscience Center, West China Hospital, Sichuan University, Chengdu, China, [2]Animal Zoology Department, Institute of Neuroscience, Kunming Medical University, Kunming, China, [3]National Traditional Chinese Medicine Clinical Research Base and Western Medicine Translational Medicine Research Center, Department of Cardiac and Cerebral Diseases, Department of Anesthesiology, Affiliated Traditional Chinese Medicine Hospital, Southwest Medical University, Luzhou, China, [4]School of Pharmacy and Medical Sciences, Sansom Institute, Division of Health Sciences, University of South Australia, Adelaide, SA, Australia, [5]Department of Histology and Neurobiology, College of Preclinic and Forensic Medicine, Sichuan University, Chengdu, China, [6]International Center for Spinal Cord Injury, Kennedy Krieger Institute, Baltimore, MD, United States, [7]Department of Neurology and Pathology, Johns Hopkins University School of Medicine, Baltimore, MD, United States

Keywords: microRNA339, motor cortex plasticity, PDXK, RNA interference, spinal cord injury

OPEN ACCESS

Edited and reviewed by:
Uwe Knippschild,
University of Ulm, Germany

***Correspondence:**
Jia Liu
liujiaaixuexi@126.com
Xue Bai
bx7246@163.com
Ting-Hua Wang
Wangth_email@163.com

†These authors have contributed equally to this work

Specialty section:
This article was submitted to Cell Death and Survival, a section of the journal Frontiers in Cell and Developmental Biology

Received: *16 February 2022*
Accepted: *28 February 2022*
Published: *13 April 2022*

Citation:
Xiong L-L, Qin Y-X, Xiao Q-X, Jin Y, Al-Hawwas M, Ma Z, Wang Y-C, Belegu V, Zhou X-F, Xue L-L, Du R-L, Liu J, Bai X and Wang T-H (2022) Corrigendum: MicroRNA339 Targeting PDXK Improves Motor Dysfunction and Promotes Neurite Growth in the Remote Cortex Subjected to Spinal Cord Transection. Front. Cell Dev. Biol. 10:877291. doi: 10.3389/fcell.2022.877291

A Corrigendum on

MicroRNA339 Targeting PDXK Improves Motor Dysfunction and Promotes Neurite Growth in the Remote Cortex Subjected to Spinal Cord Transection

by Xiong, L.-L., Qin, Y.-X., Xiao, Q.-X., Jin, Y., Al-Hawwas, M., Ma, Z., Wang, Y.-C., Belegu, V., Zhou, X.-F., Xue, L.-L., Du, R.-L., Liu, J., Bai, X. and Wang, T.-H. (2020). Front Cell Dev Biol. 8:577. doi:10.3389/fcell.2020.00577

In the original article, there was a mistake in **Figure 6A** as published. In the original **Figure 6A**, "there was only sequence of one gRNA, but the sequences of two gRNAs should be provided in the vector map for knocking out microRNA-339, thus we have updated the sequences of two gRNAs in the corrected **Figure 6A**." The corrected **Figure 6A** appears below.

The authors apologize for this error and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

SUPPLEMENTARY MATERIAL

The Supplementary Material for this article can be found online at: https://www.frontiersin.org/articles/10.3389/fcell.2020.00577/full#supplementary-material

Supplementary File 1 | The sequence of gRNA1 in the vector map for knocking out microRNA-339.

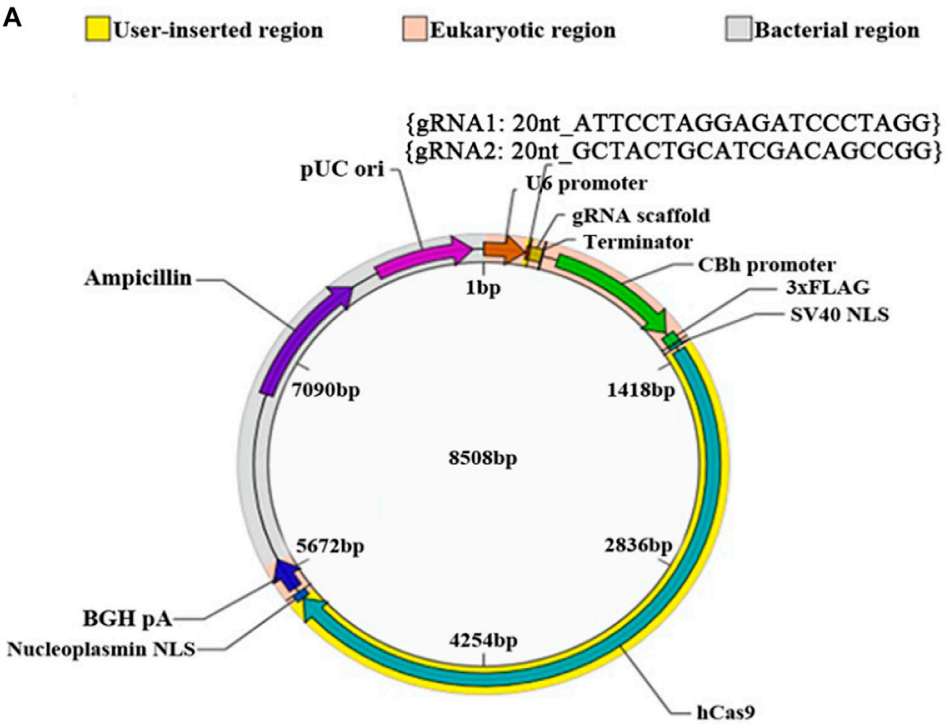

FIGURE 6 | The role of miR-339 and its regulatory relationship with PDXK on neurite growth at miR-339 knockout neurons. **(A)** The construction of vector. **(B)** Sequencing results: the deleted sequence is black, and the exon sequence is highlighted in blue and red. **(C)** F1 founder PCR screening: the molecular weight of the wild-type rats is 729 bp; the missing molecular weight of #15, #17, and #21 is 300 bp; the missing molecular weight of #3, #6, and #8 is 202 bp. **(D)** Electrophoretic band chart for genotype detection. Red green arrow refers to heterozygote rats, yellow arrow refers to wild-type rats, and blue arrow refers to knockout rats. The markers exhibit 100, 250, 500, 750, 1,000, and 2,000 bp, respectively. ± represents heterozygote rats, +/+ represents wild-type rats, and –/– represents the knockout rats. **(E)** Photomicrographs of neurons detected by Tuj1 staining in Nor, Rea, P-nc, P-si, M-nc and M groups of –/– and +/+ neurons. DAPI counterstaining (blue) demonstrated nuclei of intact cells, and red fluorescence represented Tuj1 positive staining. Apoptotic neurons were determined by Tuj1 and TUNEL staining, presented by Tuj1 + Tunel +/Tuj1 + (%) in Nor, Rea, P-nc, P-si, M-nc and M groups of –/– and +/+ neurons. DAPI counterstaining (blue) demonstrated nuclei of intact cells, red fluorescence represented Tuj1, and red fluorescence represented apoptosis. Scale bar = 50 μm. **(F)** The length of axon, cell size, cell numbers and apoptosis rate in Nor, Rea, P-nc, P-si, M-nc and M groups of –/–, +/– and +/+ neurons. DAPI counterstaining (blue) demonstrated nuclei of intact cells, red fluorescence represented Tuj1, and red fluorescence represented apoptosis. Scale bar = 50 μm. Data were exhibited as mean ± SD. $^{*}p < 0.05$ vs. +/+, $^{\#}p < 0.05$ vs. P-nc. Nor, normal; Rea, reagent; P-nc, PDXK-nc; P-si, PDXK-si; M-nc, miR-339-mimic-nc; M, miR-339-mimic; WT, wild type; NC, negative control. –/– represents miR-339 knockout homozygote. +/+ represents wild type. ± represents heterozygote. TUNEL, terminal deoxyribonucleotidyl transferase-mediated dUTP-digoxigenin nick-end labeling; DAPI, 4,6-diamidino-2-phenylindole.

Supplementary File 2 | The sequence of gRNA2 in the vector map for knocking out microRNA-339.

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.