RETRACTION NOTE

Open Access

Retraction Note: Reprogramming glioblastoma multiforme cells into neurons by protein kinase inhibitors



Jie Yuan^{1,2,3}, Fan Zhang¹, Dennis Hallahan¹, Zhen Zhang⁴, Liming He⁴, Ling-Gang Wu⁴, Meng You¹ and Qin Yang^{1*}

Retraction Note: J Exp Clin Cancer Res 37, 181 (2018) https://doi.org/10.1186/s13046-018-0857-5

The Editor-in-Chief has retracted this article. An investigation by the Office of the Vice Chancellor for Research at Washington University in St. Louis concluded that:

- Figure panels 2a-f, labeled as the brain cancer cell line GBM U118, appeared to be falsified and/or fabricated, and were also used in multiple NIH grant applications as the brain cancer cell line GM139 or as the IMR90 cell line.
- Figure 3 appeared to be produced by cutting out and reusing three lanes from a heatmap that was previously used in a 2014 NIH grant application. The heatmap lanes in the grant application were labelled as iOPCs, WT (dermal fibroblasts) and OPC (Ctrl), while the lanes in Figure 3 in this publication were labeled as iN, GBM cells and Ctrl neuron.
- Figure 4c, labeled as iN cells in the 2018 this publication, appeared to be falsified and/or fabricated, and was also published in [1] labeled as iRLs from the breast cancer cell line MDA-MB-468.

- Figure panel 4d, labeled as GBM U18 cells, appeared to be produced by reusing, manipulating, and relabeling photographs from Figure 1c labeled as IMR90 cells in [2].
- An additional concern identified as part of the investigation is extensive overlap between this publication and [1].

In addition, the authors have been unable to provide any records of ethics approval for the animal study to the Editor. Limeng He and Zhen Zhang have stated that they were not aware of their inclusion in the author list of this study.

Dennis Hallahan, Zhen Zhang, Liming He and Ling-gang Wu agree to this retraction. Jie Yuan, Fan Zhang, Meng You and Qin Yang have not responded to any correspondence from the editor or publisher about this retraction.

Author details

¹Cancer Biology Division, Department of Radiation Oncology, Washington University School of Medicine, 4511 Forest Park, St. Louis, MO 63108, USA. ²Medical Center of Stomatology, the First Affiliated Hospital of Jinan University, Guangzhou 510630, China. ³School of Stomatology, Jinan University, Guangzhou 510630, China. ⁴Synaptic Transmission Section, National Institute of Neurological Disorders and Stroke, Bethesda, MD 20892, USA.

Published online: 18 November 2021

The original article can be found online at https://doi.org/10.1186/s13046-018-0857-5.

Full list of author information is available at the end of the article

References

- Yuan J, Zhang F, You M, et al. Identification of protein kinase inhibitors to reprogram breast cancer cells. Cell Death Dis. 2018;9:915. https://doi.org/ 10.1038/s41419-018-1002-2
- Sun CK, Zhou D, Zhang Z, et al. Senescence impairs direct conversion of human somatic cells to neurons. Nat Commun. 2014;5:4112. https://doi. org/10.1038/ncomms5112.



© The Author(s) 2021. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit http://creativecommons.org/licenses/by/4.0/. The Creative Commons Public Domain Dedication waiver (http://creativecommons.org/publicodomain/zero/1.0/1 applies to the data made available in this article. unless otherwise stated in a credit line to the data.

^{*}Correspondence: qyang@wustl.edu

¹ Cancer Biology Division, Department of Radiation Oncology, Washington University School of Medicine, 4511 Forest Park, St. Louis, MO 63108, USA