

Retraction

Retraction notice regarding several articles published in *Tumor Biology*

Abstract. The publisher and the Editor-in-Chief of *Tumor Biology* retract a total of 15 articles from the journals' online catalog. The articles were published in different issues of the journal during the period 2014–2016. All articles affected by this retraction notice have problems related to image manipulation or misuse. A detailed explanation is given for each retracted article. The investigations were carried out in accordance with the recommendations of the Committee on Publication Ethics (COPE).

This retraction notice is applicable to the following articles, and the detailed explanations about the investigations are given below:

Li, N., Zhao, X., Wang, L., Zhang, S., Cui, M. & He, J. miR-494 suppresses tumor growth of epithelial ovarian carcinoma by targeting IGF1 R. *Tumor Biology*. 2016;37:7767–7776. doi: 10.1007/s13277-015-4603-8

The authors contacted the editorial office to request a retraction. According to them, they are not able to reproduce the results of this paper. They apologize to the readership of the journal for any inconvenience caused.

After receiving the retraction request, investigation by the editorial office found on PubPeer (<https://pubpeer.com/publications/07999850A66A7387150AC933717210>) concerns related to image manipulation in Figures 2 C, 2D, 4D and 7A, not refuted by the authors.

Ren, P., Gong, F., Zhang, Y., Jiang, J. & Zhang, H. MicroRNA-92a promotes growth, metastasis, and chemoresistance in non-small cell lung cancer cells by targeting PTEN. *Tumor Biology*. 2016;37:3215–3225. doi: 10.1007/s13277-015-4150-3

The authors contacted the editorial office to request a retraction. They have informed us of image manipulation allegations in Figures 5B, 6B and 7B by a reader on PubPeer (<https://pubpeer.com/publications/A33D1FC9CB601204841FD284BF215A>), and declared that some original data of the paper were missed. They apologize to the readership of the Journal for any inconvenience caused.

Li, B., Xie, Z. & Li, B. miR-152 functions as a tumor suppressor in colorectal cancer by targeting PIK3R3. *Tumor Biology*. 2016;37:10075–10084. doi: 10.1007/s13277-016-4888-2

The authors contacted the editorial office to request a retraction. They provided information about image manipulation allegations in Figures 2D and 6B by a reader on PubPeer (<https://pubpeer.com/publications/42CB0330D02A3C2D8559EBCEA1CA9A>), and declared that they could not find the original data due to computer damage. They apologize to the readership of the journal for any inconvenience caused.

Qu, Y., Pan, S., Kang, M., Dong, R. & Zhao, J. MicroRNA-150 functions as a tumor suppressor in osteosarcoma by targeting IGF2BP1. *Tumor Biology*. 2016;37:5275–5284. doi: 10.1007/s13277-015-4389-8

The authors contacted the editorial office to request a retraction and provided information that the MG63 cells used in this paper were contaminated by HeLa cells, thus their results might be wrong. In addition, Figures 5B and 4D include mistakes due to protein band misuse. Moreover, some original data were missed. They sincerely apologize for any inconvenience that might result from the retraction of this article.

After receiving the retraction request, investigation by the editorial office found on PubPeer (<https://pubpeer.com/publications/429A33A96BE23F0ACF73833E839730>) concerns related to image manipulation in Figures 2D, 4D, 5B, 6B, 7B and 7D, not refuted by the authors.

Liu, Y., Bi, T., Dai, W., Wang, G., Qian, L., Gao, Q. & Shen, G. Oxymatrine synergistically enhances the inhibitory effect of 5-fluorouracil on hepatocellular carcinoma *in vitro* and *in vivo*. *Tumor Biology*. 2016;37:7589–7597. doi: 10.1007/s13277-015-4642-1

The authors contacted the editorial office to request a retraction. They allege that, since multiple sets of experiments were carried out simultaneously, errors occurred in the processing of data and the selection of representative images, which caused some confusion between the results of other experiments and the data in another article by the same group of authors (doi: 10.1007/s10495-016-1297-3). They claim to have carefully and repeatedly checked the relevant experimental source data, but due to several years have passed, some of the data could not be completely found and matched. The authors sincerely apologize to the readers.

Detailed evidence of image misuse in Figures 2D, 3A, 4A, 4C and 5D can be found on PubPeer (<https://pubpeer.com/publications/0D9663B50C6A8F8A62AAD9AFD569F2>).

Hong, X., Hong, XY., Li, T. & He, CY. Pokemon and MEF2D co-operationally promote invasion of hepatocellular carcinoma. *Tumor Biology*. 2015;36:9885–9893. doi: 10.1007/s13277-015-3744-0

The editorial office was contacted by PubPeer about possible image manipulation in Figures 2C, 3B, 4B and 6B (<https://pubpeer.com/publications/5F29CFBB7430898B4F9DBC0FC14A47>). Once confronted about this allegation, the author confirmed that the article should be retracted.

Wang, J., Gao, Q. & Li, Q. Adenovirus type 12 E1B 55-kilodalton oncoprotein promotes p53-mediated apoptotic response of ovarian cancer to cisplatin. *Tumor Biology*. 2015;36:6569–6577. doi: 10.1007/s13277-015-3351-0

The editorial office was contacted by a reader about possible image manipulation in this article. The authors did not respond to this allegation. Investigation by the editorial office found on PubPeer (<https://pubpeer.com/publications/A8537EF134DFD0BB1B8E0A15FC0E16>) further evidence of image manipulation in Figure 3A, not refuted by the authors.

Zhang, W., Liu, K., Liu, S., Ji, B., Wang, Y. & Liu, Y. MicroRNA-133a functions as a tumor suppressor by targeting IGF-1 R in hepatocellular carcinoma. *Tumor Biology*. 2015;36:9779–9788. doi: 10.1007/s13277-015-3749-8

The authors contacted the editorial office to request a correction in Figure 6E; however, after investigation, evidence of image manipulation in Figures 3C, 5C, 6A and 6E were found on PubPeer (<https://pubpeer.com/publications/0E1553149DB9C07C79AE9AA98B423A>). Once confronted about this allegation, the authors confirmed that the article should be retracted.

Wu, S., Zhang, G., Li, P., Chen, S., Zhang, F., Li, J., Jiang, C., Chen, X., Wang, Y., Du, Y., Sun, Q. & Zhao, G. miR-198 targets SHMT1 to inhibit cell proliferation and enhance cell apoptosis in lung adenocarcinoma. *Tumor Biology*. 2016;37:5193–5202. doi: 10.1007/s13277-015-4369-z

The editorial office was contacted by PubPeer about image manipulation in Figure 2D and 2E (<https://pubpeer.com/publications/8F9020233EC5C33DE7255F49E1474C#5>). The authors did not refute this allegation.

Li, Y., Zhang, X., Chen, D. & Ma, C. Let-7a suppresses glioma cell proliferation and invasion through TGF- β /Smad3 signaling pathway by targeting HMGA2. *Tumor Biology*. 2016;37:8107–8119. doi: 10.1007/s13277-015-4674-6

The editorial office was contacted by PubPeer about image manipulation in Figures 5B, 6A, 8B and 8E (<https://pubpeer.com/publications/9F7D73288827661CF5922587E9D6BC#4>). The authors did not refute this allegation.

Zhang, XB., Song, L., Wen, HJ., Bai, XX., Li, ZJ. & Ma, LJ. Upregulation of microRNA-31 targeting integrin α 5 suppresses tumor cell invasion and metastasis by indirectly regulating PI3K/AKT pathway in human gastric cancer SGC7901 cells. *Tumor Biology*. 2016;37:8317–8325. doi: 10.1007/s13277-015-4511-y

The editorial office was contacted by PubPeer about image manipulation in Figure 6B (<https://pubpeer.com/publications/6A2122CB4A9ACDE2C5B2DF8537749C#6>). The authors did not refute this allegation.

Li, J., Yang, S., Su, N., Wang, Y., Yu, J., Qiu, H. & He, X. Overexpression of long non-coding RNA HOTAIR leads to chemoresistance by activating the Wnt/ β -catenin pathway in human ovarian cancer. *Tumor Biology*. 2016;37:2057–2065. doi: 10.1007/s13277-015-3998-6

The editorial office was contacted by PubPeer about image manipulation in Figures 1E and 3E (<https://pubpeer.com/publications/1710709728F705D84A69D26F5827C6>). The authors did not refute this allegation.

Li, YG., Liang, NX., Qin, YZ., Ma, DJ., Huang, CJ., Liu, L. & Li, SQ. Effects of RNAi-mediated TUSC3 silencing on radiation-induced autophagy and radiation sensitivity of human lung adenocarcinoma cell line A549 under hypoxic condition. *Tumor Biology*. 2016;37:16357–16365. doi: 10.1007/s13277-016-5458-3

The authors contacted the editorial office to request a retraction. They declared that, “As for the limited experimental conditions at that time, I did not carry out cell line screening, and only used a single human lung adenocarcinoma cell line A549 for experiment. However, when I continued my research in the later stage, I purchased other human lung adenocarcinoma cell lines (NCI-H446) for experiments, and could not obtain the RNAi precipitation with A549 cell line Mutusc3 gene inhibits the growth and proliferation of hypoxic lung adenocarcinoma cell line A549, promotes its apoptosis, and enhances the radiosensitivity of hypoxic lung adenocarcinoma cell line A549. Our team verified the sub-cultured frozen A549 cell line and found that this cell line has been contaminated. Therefore, the original conclusion is not strict.”

After receiving the retraction request, investigation by the editorial office found on PubPeer (<https://pubpeer.com/publications/277773908BFB94B3EECA7BE47E6B69>) evidence of image manipulation in Figures 2, 4 and 7, not refuted by the authors.

Li, Y., Jia, L., Liu, C., Gong, Y., Ren, D., Wang, N., Zhang, X. & Zhao, Y. Axl as a downstream effector of TGF- β 1 via PI3K/Akt-PAK1 signaling pathway promotes tumor invasion and chemoresistance in breast carcinoma. *Tumor Biology*. 2015;36:1115–1127. doi: 10.1007/s13277-014-2677-3

The editorial office was contacted by a reader about image manipulation in Figures 2B, 2D, 4E, 5A and Suppl. 1A, also reported on PubPeer (<https://pubpeer.com/publications/C3083F44BC093638DA8C614374F1B4>). The authors did not refute this allegation.

Ren, D., Li, Y., Gong, Y., Xu, J., Miao, X., Li, X., Liu, C., Jia, L. & Zhao, Y. Phyllodes tumor of the breast: role of Ax1 and ST6GalNAcII in the development of mammary phyllodes tumors. *Tumor Biology*. 2014;35:9603–9612. doi: 10.1007/s13277-014-2254-9

The editorial office was contacted by a reader about image manipulation in Figures 3 C, 4B and 5, also reported on PubPeer (<https://pubpeer.com/publications/BB20BCFD9C45435DCE6902C2D18896>). The authors did not refute this allegation.