# **RETRACTION NOTE**

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# Retraction Note: MicroRNA-1468 promotes tumor progression by activating PPAR-γ-mediated AKT signaling in human hepatocellular carcinoma



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# Retraction Note: J Exp Clin Cancer Res 37, 49 (2018) https://doi.org/10.1186/s13046-018-0717-3

The Editor-in-Chief has retracted this article at the corresponding author's request. After publication, the authors became aware that data from other projects were included in the figures, resulting in image overlap between this article and previous publications from other authors. Specifically:

- Fig. 3a appears to overlap with Fig. 4a in [1];
- Fig. 7g Cyclin D1 lanes 3 and 4 appear highly similar to Fig. 9d E-cadherin lanes 2 and 3 in [2].

Additionally, parts of images in Figs. 2d, 3a, 7g and 8f have subsequently been used in [3–7].

The authors have therefore lost confidence in the data presented in this article.

Author Kangsheng Tu has stated on behalf of all coauthors that they agree to this retraction.

The original article can be found online at https://doi.org/10.1186/s13046-018-0717-3

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### References

- Yang N, Chen J, Zhang H, et al. LncRNA OIP5-AS1 loss-induced micro-RNA-410 accumulation regulates cell proliferation and apoptosis by targeting KLF10 via activating PTEN/PI3K/AKT pathway in multiple myeloma. Cell Death Dis. 2017;8:e2975. https://doi.org/10.1038/cddis. 2017.358.
- Xu Q, Liu X, Liu Z, et al. MicroRNA-1296 inhibits metastasis and epithelialmesenchymal transition of hepatocellular carcinoma by targeting SRPK1mediated PI3K/AKT pathway. Mol Cancer. 2017;16:103. https://doi.org/10. 1186/s12943-017-0675-y.
- Yao B, Li Y, Wang L, et al. MicroRNA-3194-3p inhibits metastasis and epithelial-mesenchymal transition of hepatocellular carcinoma by decreasing Wnt/β-catenin signaling through targeting BCL9. Artif Cells Nanomed Biotechnol. 2019;47(1):3885–95. https://doi.org/10.1080/21691 401.2019.1670190.
- Zhou M, Chen J, Zhang H, et al. KLF10 inhibits cell growth by regulating PTTG1 in multiple myeloma under the regulation of microRNA-106b-5p. Int J Biol Sci. 2020;16(12):2063. https://doi.org/10.7150/ijbs.45999.
- Yang N, Wang L, Chen T, et al. ZNF521 which is downregulated by miR-802 suppresses malignant progression of hepatocellular carcinoma through regulating Runx2 expression. J Cancer. 2020;11(19):5831. https:// doi.org/10.7150/jca.45190.



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Liu et al. J Exp Clin Cancer Res (2022) 41:272 Page 2 of 2

 Yang N, Chen T, Wang L, et al. CXCR4 mediates matrix stiffness-induced downregulation of UBTD1 driving hepatocellular carcinoma progression via YAP signaling pathway. Theranostics. 2020;10(13):5790. https://doi. org/10.7150/thno.44789.

 Liu Z, Mo H, Sun L, et al. Long noncoding RNA PICSAR/miR-588/EIF6 axis regulates tumorigenesis of hepatocellular carcinoma by activating PI3K/ AKT/mTOR signaling pathway. Cancer Sci. 2020;111:4118–28. https://doi. org/10.1111/cas.14631.

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