

## Retraction

# RETRACTION: AK4 Promotes the Progression of HER2-Positive Breast Cancer by Facilitating Cell Proliferation and Invasion

### Disease Markers

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RETRACTION: J. Zhang, Y.-T. Yin, C.-H. Wu, R.-L. Qiu, W.-J. Jiang, X.-G. Deng, and Z.-X. Li. “AK4 Promotes the Progression of HER2-Positive Breast Cancer by Facilitating Cell Proliferation and Invasion,” *Disease Markers*, no. 2019 (2019): 1–9. <https://doi.org/10.1155/2019/8186091>.

The above article, published online on 20 November 2019 in Wiley Online Library ([wileyonlinelibrary.com](http://wileyonlinelibrary.com)), has been retracted by John Wiley & Sons Ltd.

The retraction has been agreed following an investigation of the concerns raised by *Hoya camphorifolia* and *Phyllosticta caprifolii* on PubPeer [1], which identified multiple instances of inappropriately overlapping figures.

Specifically:

-Figure 2b: The Immunoblot assay bands corresponding to AK4 and  $\beta$ -actin expression in the MCF7 cells have been duplicated in Figure 3b (right) of [2], and Figure 3d (left) of [3], while labelled as other proteins identified in other cell types.

-Figure 3a: The image of the cell cultures is identical to the culture plates shown in Figure 4a in [4], where the colonies are labelled as different cell types.

-Figure 3c: Multiple duplications of the 3 wound closure assay images (except the image on the top right) across several publications. The top left panel can be seen in Figure 3c (bottom left) of [5], while the bottom panels are duplicated in Figure 3c (bottom) of [6].

-Figure 3d: The bottom right section of the MCF7 shRNA image is identical to the bottom left section of the MDA-MB-231 shRNA image.

-Figure 4a: The tumors are present in Figure 4a of [7] as the 8 tumors on the right side of the figure. Some of these tumors

can also be seen in Figure 5 of [4, 8] and [9] in a different arrangement.

-Figure 4b: The images of the 2 tumors have been duplicated in Figure 4b of [5].

-Figure 4c: A duplicate of the immunohistochemistry image on the right has been found in Figure 4c (right) of [10] and Figure 5b (left) of [11]. The panel on the left has also been duplicated in [10] as Figure 4d (left). All the figures above attribute the immunohistochemistry images to different tissue types.

As a result of the investigation, the data and conclusions of this article are considered unreliable.

The authors were informed of the decision to retract the paper but did not provide a response.

### References

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