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# Retraction Note: Liver X receptors constrain tumor development and metastasis dissemination in PTEN-deficient prostate cancer

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In this Article, we reported that liver X receptors constrain metastatic development of prostate cancer in Pten-null mice.

However, following institutional investigations by Université Clermont Auvergne, it has come to our attention that much of the data reported in the paper were a result of manipulation or fabrication. Specifically, differences in protein expression in western blots presented in Fig. 1e, 3b, g, i, m, and 6b, and Supplementary Figures 2d, 6d, 6h, 7h, 8c, 8d, and 14 were generated by unequal loading of samples. In qPCR experiments presented in Figs. 1f, 3f, 4g, 5h, and 6a, d and Supplementary Figures 2c, 5d, 6g, 8d, 11a-c, and 12b, differences in expression level were manipulated through adjustment of cycle numbers, selection of samples, and data fabrication. Differences in immunostaining in Figs. 2g, k and 7e were obtained by selection of images or manipulation of exposure levels. Observed differences in relative luminescence units in Figs. 3m, 4e, and Supplementary Figures 6f, 7a, 7b, 10, and 11f were due to experiment selection.

In light of these findings, we have no confidence in the accuracy of the reported data and the conclusions of the paper. We therefore wish to retract the paper. We deeply regret these circumstances and apologize to the scientific community.

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