

Corrigendum

Corrigendum to article “DriverML: a machine learning algorithm for identifying driver genes in cancer sequencing studies”

Yi Han^{1,†}, Juze Yang^{2,†}, Xinyi Qian², Wei-Chung Cheng³, Shu-Hsuan Liu³, Xing Hua⁴,
Liyuan Zhou², Yaning Yang⁵, Qingbiao Wu⁶, Pengyuan Liu^{2,*} and Yan Lu^{1,*}

¹Center for Uterine Cancer Diagnosis and Therapy Research of Zhejiang Province, Women's Reproductive Health Key Laboratory of Zhejiang Province, Women's Hospital and Institute of Translational Medicine, Zhejiang University School of Medicine, Hangzhou, Zhejiang 310006, China, ²Sir Run Run Shaw Hospital and Institute of Translational Medicine, Zhejiang University School of Medicine, Hangzhou, Zhejiang 310016, China, ³Graduate Institute of Biomedical Sciences, Research Center for Tumor Medical Science, and Drug Development Center, China Medical University, Taichung 40402, Taiwan, ⁴Division of Cancer Epidemiology and Genetics, National Cancer Institute, NIH, Bethesda, MD 20892, USA, ⁵Department of Statistics and Finance, University of Science and Technology of China, Hefei, Anhui 230026, China and ⁶Department of Mathematics, Zhejiang University, Hangzhou, Zhejiang 310027, China

In our original article published in *Nucleic Acids Research* (1), we developed a machine learning algorithm for identifying driver genes (i.e., DriverML), and benchmarked it with 20 other existing tools (including ExInAator) in 31 TCGA exome mutation datasets. It was brought to our attention by Dr. Rory Johnson, the developer of ExInAator (University of Bern, Switzerland), that the use of whole-genome sequencing data is critical for the ExInAator as mutations in intronic and intergenic regions are required to estimate background mutation rates. In our article, the exome mutation data were used for ExInAator analysis, which resulted in a significant underestimation of background mutation rates. The results of ExInAator analysis presented in our article didn't represent its optimal performance. The requirement to use only whole-genome SNVs has now been clarified in the ExInAator Github page (<https://github.com/alanzos/ExInAator/>). The corrections do not affect the conclusions of the article. We deeply regret this oversight and any confusions over this issue.

REFERENCES

1. Han, Y., Yang, J., Qian, X., Cheng, W.C., Liu, S.H., Hua, X., Zhou, L., Yang, Y., Wu, Q., Liu, P. *et al.* (2019) DriverML: a machine learning algorithm for identifying driver genes in cancer sequencing studies. *Nucleic Acids Res.*, **47**, e45. doi: 10.1093/nar/gkz096.

*To whom correspondence should be addressed. Tel: +86 571 86971831; Fax: +86 571 88981576; Email: yanlu76@zju.edu.cn
Correspondence may also be addressed to Pengyuan Liu. Tel: +86 571 86971657; Fax: +86 571 88981576; Email: pylu@zju.edu.cn

†The authors wish it to be known that, in their opinion, the first two authors should be regarded as Joint First Authors.