









<https://doi.org/10.1038/s41467-022-31001-3>

OPEN

# Retraction Note: Selective inheritance of target genes from only one parent of sexually reproduced F1 progeny in *Arabidopsis*

Tao Zhang , Michael Mudgett , Ratnala Rambabu , Bradley Abramson , Xinhua Dai ,  
Todd P. Michael  & Yunde Zhao 

Retraction to: *Nature Communications* <https://doi.org/10.1038/s41467-021-24195-5>, published online 22 June 2021.

We retract the article cited above because genotyping results from recent experiments are not consistent with the conclusions presented in the paper.

We recently genotyped a selection of F2 plants in order to identify plants to use for an introgression experiment.

In the original study, we confirmed homozygosity by using a pair of oligonucleotides covering the large gene drive region in its entirety, a region that is too large to be amplified by PCR if both alleles have integrated the gene drive element. When we analyzed F2 plants using a pair of oligonucleotides targeting a smaller region of the gene drive, we found a small fragment was amplified only in about 75% of the plants. The absence of the band in the remaining F2 plants can be accounted for by a large NHEJ based deletion in one of the alleles of the F1 plants, which can result in the removal of the oligonucleotide binding sites. Thus, the F1 plants presented in the paper are not homozygous as stated in the published paper.

In light of the new genotyping data that invalidate our conclusions on gene drives, we are retracting the paper. The gene targeting results of both the CRY1 lines and NPY5-GFP lines remain valid. We apologize for any inconvenience the publication of this work may have caused to the scientific community. All authors agree to the retraction.

Published online: 07 June 2022



**Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this license, visit <http://creativecommons.org/licenses/by/4.0/>.

© The Author(s) 2022