

CORRECTION

Open Access



# Correction: Effects of *PmaIAA27* and *PmaARF15* genes on drought stress tolerance in *pinus massoniana*

Liangliang Li<sup>1,2</sup>, Yan Li<sup>1</sup>, Wenxuan Quan<sup>1</sup> and Guijie Ding<sup>1\*</sup>

**Correction:** *BMC Plant Biol* 23, 478 (2023)  
<https://doi.org/10.1186/s12870-023-04498-z>

Following publication of the original article [1], mouse cursors were mistakenly included and appear to be visible in Figs. 2, 3 and 4, and 6.

The corrected figures are provided below:

The correction does not affect the overall result or conclusion of the article.

---

The online version of the original article can be found at <https://doi.org/10.1186/s12870-023-04498-z>.

\*Correspondence:

Guijie Ding  
gjding@gzu.edu.cn

<sup>1</sup>Forest Resources and Environment Research Center, Key Laboratory of Forest Cultivation in Plateau Mountain of Guizhou Province, College of Forestry, Guizhou University, Guiyang 550001, China

<sup>2</sup>Institute of Mountain Resources of Guizhou Province, Guiyang 550001, China



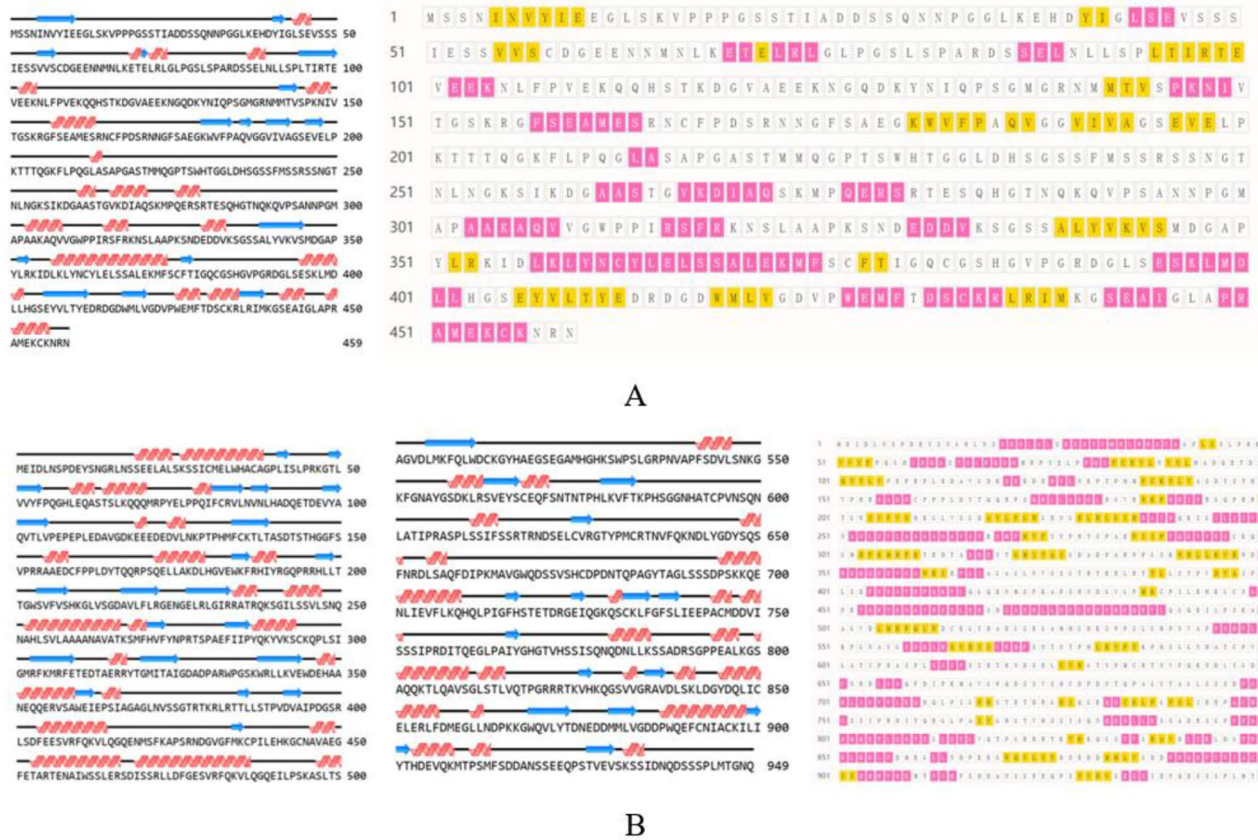
© The Author(s) 2023. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence 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 licence, visit <http://creativecommons.org/licenses/by/4.0/>. The Creative Commons Public Domain Dedication waiver (<http://creativecommons.org/publicdomain/zero/1.0/>) applies to the data made available in this article, unless otherwise stated in a credit line to the data.



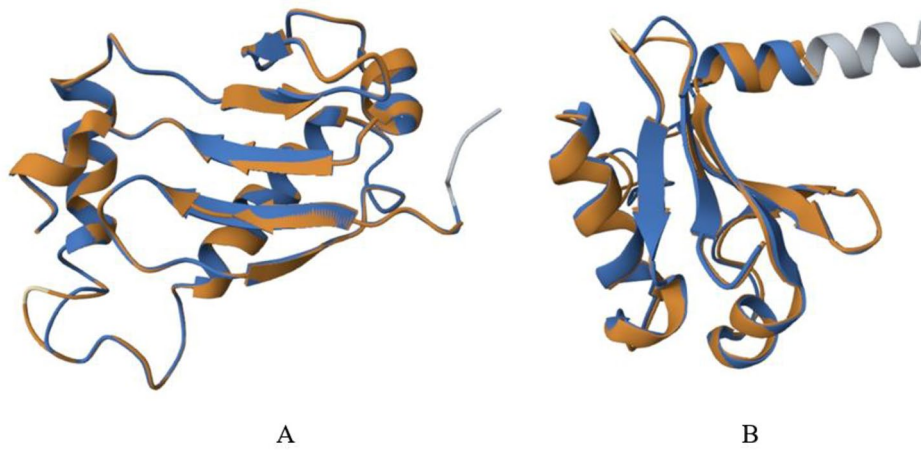
A

B

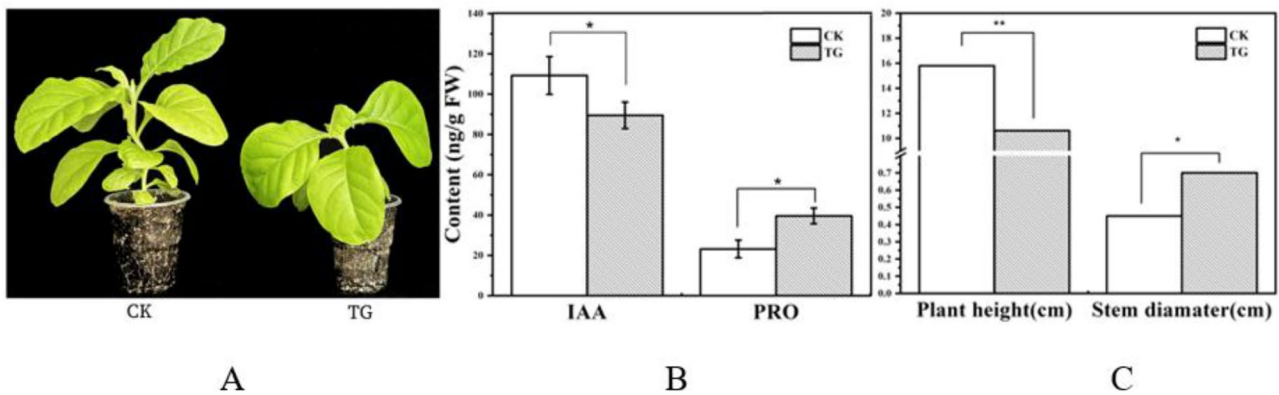
Fig. 2 Coding sequences and derived amino acid sequences of *PmaIAA27* (A) and *PmaARF15* (B)



**Fig. 3** Analysis of the secondary structure of the proteins encoded by *PmaIAA27* (A) and *PmaARF15* (B). Red represents  $\alpha$ -helix, yellow and blue arrows represents  $\beta$ -sheet



**Fig. 4** *PmaAA27* (A) and *PmaARF15* (B) encoding protein tertiary structure homology modeling. Orange and blue are aligned amino acid residues for the target and template proteins, respectively, and all other colors are unaligned amino acid residues



**Fig. 6** Phenotype of *PmaAA27* transgenic tobacco (A) and leaf IAA, PRO contents (B) and Plant height and Stem diameter (C). \* indicates that the difference between different temperatures at the same drought level is significant at 0.05 level; \*\* represents a significant difference at 0.01 level. CK indicates non-transgenic normal plants and TG indicates transgenic plants

Published online: 25 October 2023

### **Publisher's Note**

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

### **References**

1. Li L, Li Y, Quan W, et al. Effects of *PmaAA27* and *PmaARF15* genes on drought stress tolerance in *pinus massoniana*. *BMC Plant Biol.* 2023;23:478. <https://doi.org/10.1186/s12870-023-04498-z>.