



Corrigendum: Only the Rye Derived Part of the 1BL/1RS Hybrid Centromere Incorporates CENH3 of Wheat

Raheleh Karimi-Ashtiyani^{1,2*}, Veit Schubert² and Andreas Houben^{2*}

¹ Department of Biotechnology, Faculty of Agriculture, Tarbiat Modares University, Tehran, Iran, ² Leibniz Institute of Plant Genetics and Crop Plant Research (IPK), Gatersleben, Germany

Keywords: CENH3, 1BL/1RS, Robertsonian translocation, wheat, dicentric, rye, hybrid centromere

A Corrigendum on

Only the Rye Derived Part of the 1BL/1RS Hybrid Centromere Incorporates CENH3 of Wheat by Karimi-Ashtiyani, R., Schubert, V., and Houben, A. (2021). *Front. Plant Sci.* 12:802222. doi: 10.3389/fpls.2021.802222

OPEN ACCESS

Approved by:

Frontiers Editorial Office,
Frontiers Media SA, Switzerland

*Correspondence:

Raheleh Karimi-Ashtiyani
r.karimi@modares.ac.ir
Andreas Houben
houben@ipk-gatersleben.de

Specialty section:

This article was submitted to
Plant Cell Biology,
a section of the journal
Frontiers in Plant Science

Received: 14 January 2022

Accepted: 02 February 2022

Published: 04 March 2022

Citation:

Karimi-Ashtiyani R, Schubert V and
Houben A (2022) Corrigendum: Only
the Rye Derived Part of the 1BL/1RS
Hybrid Centromere Incorporates
CENH3 of Wheat.
Front. Plant Sci. 13:854911.
doi: 10.3389/fpls.2022.854911

In the original article, there was an error. The origin and history of the analysed 1B/1R hybrid centromere was not correctly described and required correction in the **Abstract, Materials and Methods section, and Figure 1C**.

A correction has been made to the **Abstract**.

The original text, “The wheat-rye 1BL/1RS translocation chromosome in the background of wheat resulted from a centric misdivision followed by the fusion of the broken arms of chromosomes 1B and 1R from wheat and rye, respectively” has been corrected to: “A chromosome 1B reconstructed in wheat by centric misdivision from two wheat-rye centric translocations is known to carry a hybrid wheat-rye centromere.”

A correction has been made to the section **Materials and Methods**, subsection **Plant Material and Cultivation**, paragraph 1:

“The 1B_{rec}-1 line of cv. Pavon 76 carrying a reconstructed chromosome 1B (Lukaszewski, 1993, 1997) was grown in a greenhouse at 16 h light, 22°C day/16°C night conditions. Chromosome 1B_{rec}-1 was reconstructed by centric misdivision from two centric wheat-rye translocations, 1RS.1BL and 1BS.1RL. In essence, the chromosome itself is a centric translocation, composed of a wheat chromosome arm 1BS from cv. Pavon 76 and 1BL arm from the translocation 1RS.1BL from the Aurora/Kavkaz source (Lukaszewski, 1993, 1997). As demonstrated by Zhang et al. (2001) this chromosome carries a hybrid centromere, composed in part of a wheat centromere and in part of a rye centromere.”

In the original article, there was a mistake in **Figure 1C** as published because the origin of the chromosome arms was wrongly depicted. Additionally, the origin of the analysed chromosome was wrongly described in the legend for **Figure 1C**. The corrected **Figure 1C** and its legend appears below.

The authors apologize for these errors and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

REFERENCES

- Lukaszewski, A. J. (1993). Reconstruction in wheat of complete chromosomes 1B and 1R from the 1RS.1BL translocation of 'Kavkaz' origin. *Genome* 36, 821–824. doi: 10.1139/g93-109
- Lukaszewski, A. J. (1997). Further manipulation by centric misdivision of the 1RS.1BL translocation in wheat. *Euphytica* 94, 257–261. doi: 10.1023/A:1002916323085
- Zhang, P., Friebe, B., Lukaszewski, A. J., and Gill, B. S. (2001). The centromere structure in Robertsonian wheat-rye translocation chromosomes indicates that centric breakage-fusion can occur at different positions within the primary constriction. *Chromosoma* 110, 335–344. doi: 10.1007/s004120100159

Publisher's Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

Copyright © 2022 Karimi-Ashtiyani, Schubert and Houben. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

