Retraction Note: The Arabidopsis NOT4A E3 ligase promotes PGR3 expression and regulates chloroplast translation

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In this Article, we reported that NOT4A ubiquitin-ligase was required for proper expression of PROTON GRADIENT REGULATION 3 (PGR3), chloroplast ribosome biogenesis, chloroplast protein translation and photosynthesis. However, it was since brought to our attention (by Hannes Ruwe and Christian Schmitz-Linneweber of Humboldt-Universität zu Berlin and Alice Barkan and Rosalind Williams-Carrier of the University of Oregon) that the Arabidopsis not4a T-DNA insertion line (not4a; GABI_134E03) used in the paper carries an additional mutation affecting the broader PGR3 locus. We have independently confirmed the presence of a PGR3 deletion in the genetic material used during the study. As a result, we can no longer unequivocally conclude that the reported not4a phenotypes can be attributed to loss of NOT4A rather than PGR3. For reasons that are currently unclear, the PGR3 deletion was heterozygous in the not4a complementation lines (N4A-G1 and N4A-G3) and as such, these lines do not serve as adequate controls. We consistently observe cosegregation of the pgr3 deletion with the T-DNA insertion in NOT4A, despite being located on different chromosomes. While the basis for this apparent genetic linkage is currently unclear, this likely explains why the pgr3 deletion was retained despite backcrossing the not4a insertion allele to the Col-0 wild type background as described in the Article. We thank Ruwe and colleagues for bringing the issues to our attention and we sincerely apologise for inadvertently misleading readers of the Article. All authors agree with retraction of the Article.

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