

AMENDMENTS

https://doi.org/10.1038/s41564-021-00889-w



Author Correction: The impact of genetic diversity on gene essentiality within the *Escherichia coli* species

François Rousset, Jose Cabezas-Caballero, Florence Piastra-Facon, Jesús Fernández-Rodríguez, Olivier Clermont, Erick Denamur, Eduardo P. C. Rocha, and David Bikard.

Correction to: Nature Microbiology https://doi.org/10.1038/s41564-020-00839-y, published online 18 January 2021.

In the version of this Article originally published, there were errors in Fig. 4 and in the Results and Methods sections.

In the Results section 'Mapping the genetic determinants of strain-specific essentiality', in the sentence beginning 'Two suppressors had an...' the reverse-transcriptase domain was mistakenly stated as belonging to a retron system. The sentence should have read: 'Two suppressors had an insertion element in a prophage-encoded protein (H120_04184, RefSeq accession: WP_000344414.1) with a reverse-transcriptase (RT) domain (pfam 00078) (Fig. 4h,i).' In the same paragraph, the sentence 'The organization of this two-gene system (H120-RT+SLATT) is reminiscent of the architecture of retrons, although the RT gene is different from retron RTs' should have been inserted immediately following the sentence beginning 'Heterologous expression of this...' In addition, the final sentence of the paragraph mistakenly stated that the H120 retron provides resistance to unknown phages. The sentence should have read: 'In this case, we can hypothesize that the H120-RT+SLATT system guards the function of SbcB instead.'

In the Methods section 'Plasmid construction', in the sentence beginning 'The dUTPase from TA447, the TA…' the retron system cloned should have been the H120-RT+SLATT system, and the sentence should have read: 'The dUTPase from TA447, the TA system from E101 and the H120-RT+SLATT system were cloned using a three-fragment Gibson assembly⁶¹ from (1) the pZS24-MSC1 (ref. ⁶³) plasmid, (2) the LC-E75 strain (Addgene accession no. 115925) and (3) the genome of TA447, E101 or H120 respectively, using primers listed in Supplementary Table 7.' In the same paragraph, in the sentence beginning 'The dUTPase from TA447 and the GFP...', 'the retron system from H120' should have been 'the H120-RT+SLATT system'; that is, the sentence should have read: 'The dUTPase from TA447 and the GFP were expressed from the pTet promoter, while the TA system from E101 and the H120-RT+SLATT system were expressed from their natural promoter.'

In the Fig. 4h–j caption, 'A retron system' should have been 'The H120-RT+SLATT system'; that is, the caption should have read: 'h–j, The H120-RT+SLATT system makes *sbcB* essential.' In the Fig. 4h caption, 'a retron system' should have been 'a two-gene system'; that is, the caption should have read: 'h, Suppressors of *sbcB* essentiality in H120 has an insertion element in the reverse-transcriptase of a two-gene system encoded by H120_04184 (WP_000344414.1) and H120_04183 (WP_001352776.1).'

Finally, in Fig. 4h-j all five instances of the label 'H120-retron' should have been 'H120-RT+SLATT'.

These errors have now been corrected.

Published online: 15 March 2021

https://doi.org/10.1038/s41564-021-00889-w

 $\ensuremath{\mathbb{G}}$ The Author(s), under exclusive licence to Springer Nature Limited 2021