

CORRECTION

Open Access



# Correction: Multiple imputation and direct estimation for qPCR data with non-detects

Valeriia Sherina<sup>1</sup>, Helene R. McMurray<sup>2,3</sup>, Winslow Powers<sup>4</sup>, Harmut Land<sup>2</sup>, Tanzy M. T. Love<sup>1</sup> and Matthew N. McCall<sup>1,2\*</sup>

The original article can be found online at <https://doi.org/10.1186/s12859-020-03807-9>.

\*Correspondence: [mccallm@gmail.com](mailto:mccallm@gmail.com)

<sup>1</sup> Department of Biostatistics and Computational Biology, University of Rochester Medical Center, 265 Crittenden Blvd., Rochester, NY 14642, USA

<sup>2</sup> Department of Biomedical Genetics, University of Rochester Medical Center, 601 Elmwood Ave, Rochester, NY 14642, USA

<sup>3</sup> Department of Pathology and Laboratory Medicine, University of Rochester Medical Center, 601 Elmwood Ave., Rochester, NY 14642, USA

<sup>4</sup> Department of Biomedical Engineering, University of Rochester, 201 Robert B. Goergen Hall, Rochester, NY 14627, USA

**Correction: BMC Bioinformatics (2020) 21:545**

<https://doi.org/10.1186/s12859-020-03807-9>

Following the publication of the original article [1], the authors identified that Appendix D was missing in Additional file 1. The additional file has been updated.

The original article [1] has been corrected.

## Supplementary Information

The online version contains supplementary material available at <https://doi.org/10.1186/s12859-024-05653-5>.

**Additional file 1. Supplementary Materials:** The supplementary materials contain derivations of the variance estimates for SI and MLE and their difference in Appendix A. In Appendix B we present additional simulation results. Supplementary Figures are shown in Appendix C. Appendix D Estimation via Expectation Conditional Maximization (ECM).

Published online: 07 February 2024

## Reference

1. Sherina, et al. Multiple imputation and direct estimation for qPCR data with non-detects. *BMC Bioinform.* 2020;21:545. <https://doi.org/10.1186/s12859-020-03807-9>.

## Publisher's Note

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



© The Author(s) 2024. **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.