Introducing MBoC Preprint Highlights

Michael M. Lacy^a and Matthew D. Welch^{b,*}

^aAmerican Society for Cell Biology, Rockville, MD 20852; ^bDepartment of Molecular & Cell Biology, University of California, Berkeley, Berkeley, CA 94720

This week *Molecular Biology of the Cell (MBoC)* is excited to publish our first *MBoC* Preprint Highlights. This new type of editorial content provides brief summaries and structured recognition of research contributions for selected preprints of interest to our community. Publishing these highlights leverages the expertise of *MBoC* and the American Society for Cell Biology (ASCB) to promote the

curation of the preprint literature for the benefit of the scientific community. This effort is supported by a Learned Society Curation Award from the Wellcome Trust and the Howard Hughes Medical Institute (Leader, 2020).

Throughout the past year, we have been working to design and implement a system of curation tools for preprints and research articles that debuts with the publication of our first MBoC Preprint Highlights. These tools consist of Badges selected and Significance Statements written by members of our new Board of Early-Career Editors (Lacy, 2021) and applied to selected preprints. Badges provide a visual way to quickly alert readers to valuable contributions of the research—such as providing openly accessible data sets or software, demonstrating a new method, providing instructional materials, and more—which might not otherwise be apparent from a first view of the paper (Figure 1). A Significance Statement is intended to be a concise and broadly accessible overview of the

Open Data



Authors share their data sets in a public repository.

Open Software



Authors share code in a public repository.

New Hypothesis



Authors propose a new model or hypothesis for a phenomenon.

New Methods



Authors describe a new technique, instrument, or protocol.

New Materials



Authors generate or characterize a new material, compound, or sample type.

Cross-Validation



Authors use multiple types of evidence or complementary techniques.

Cross-Species



Authors study multiple species to assess evolutionary conservation.

Challenge



Results contradict earlier observations or established hypothesis.

Null Results



Authors report negative results of interest.

Instructional Resource



Article provides instruction for research, teaching, or mentorship.

FIGURE 1: *MBoC* Badges. See https://www.molbiolcell.org/curation-tools for full definitions and explanation of badging for *MBoC* Preprint Highlights and research articles.

DOI:10.1091/mbc.E22-02-0035

Michael M. Lacy is Curation Manager, American Society for Cell Biology; Matthew D. Welch is Editor-in-Chief, *Molecular Biology of the Cell.*

*Address correspondence to: Matthew D. Welch (welch@berkeley.edu).

© 2022 Lacy and Welch. This article is distributed by The American Society for Cell Biology under license from the author(s). Two months after publication it is available to the public under an Attribution–Noncommercial-Share Alike 4.0 International Creative Commons License (http://creativecommons.org/licenses/by-nc-sa/4.0).

"ASCB®," "The American Society for Cell Biology®," and "Molecular Biology of the Cell®" are registered trademarks of The American Society for Cell Biology.

research and its significance, highlighting the background context, key findings, and potential impacts on future work.

We intend for MBoC Preprint Highlights to help readers from diverse fields discover relevant preprints and understand the background context and importance of the work. MBoC Preprint Highlights will be published in the journal and linked on the preprint page on bioRxiv. A number of other preprint curation initiatives have been launched in recent years, with several venues now providing editorial commentary or assessment of the preprint literature

(ReimagineReview, ASAPbio; https://reimaginereview.asapbio.org/; Polka et al., 2022). MBoC Preprint Highlights complement these efforts and are unique in their format of brief Significance Statements and visual Badges and in that they are written by members of the Editorial Board and published as journal content. Importantly, like the preprints themselves, these editorial highlights will be openly accessible to all readers.

Selection as a highlighted preprint does not represent peer review and does not imply that the preprint has been or will be reviewed or published by MBoC or any other journal; preprint authors do not submit for consideration as a highlight and are not involved in the selection of Badges or writing of Significance Statements. Of course, we welcome feedback from authors, readers, and the community. In the future, MBoC research articles will also include Badges and Significance Statements.

This effort is an experiment. Therefore, we will assess the impact of highlights on preprint usage throughout this year and issue a report on our findings, and we plan to expand or adapt the project as necessary to best support the community.

As a journal published by a scientific society and edited exclusively by active researchers, MBoC has long been a trusted source for publishing new and reliable findings by and for the cell biology community. ASCB is proud to support the community and engage in efforts to enhance the preprint ecosystem. In line with other ongoing efforts for the journal (Welch, 2020, 2021), we hope that these curation tools will help readers appreciate the importance of

emerging scholarly works and provide new opportunities for researchers to engage with the literature.

ACKNOWLEDGMENTS

The design and implementation of *MBoC*'s curation tools are supported by a Learned Society Curation Award from the Howard Hughes Medical Institute and the Wellcome Trust (grant no. 221441/Z/20/Z). We thank Bodo Stern, Jessica Polka, Anna Hatch, Stephen Curry, Kelly Cobey, Veronique Kiermer, Richard Sever, John Inglis, Aki MacFarlane, and Bernd Pulverer for helpful discussions and feedback.

REFERENCES

- Lacy M (2021). Early-career editors joining MBoC board. American Society for Cell Biology. Available at https://www.ascb.org/society-news/early -career-editors-mboc-announcement/.
- Leader WM (2020). ASCB receives grant to develop tools for curation of scientific literature. American Society for Cell Biology. Available at https://www.ascb.org/society-news/ascb-receives-grant-to-develop-tools-for-curation-of-scientific-literature/.
- Polka J, Puebla I, Pattinson D, Hurst P, McDowell GS, Sever R, Lemberger T, Avissar-Whiting M, Cohen PN, Ross-Hellauer T, et al. (2022). PReF: describing key preprint review features. OSF Preprints, 10.31219/osf. io/8zj9w.
- Welch MD (2020). MBoC: community, communication, and innovation. Mol Biol Cell 31. 1–2.
- Welch MD (2021). New editors bring new energy to MBoC. Mol Biol Cell 32, 1331–1407.

2 | M. M. Lacy and M. D. Welch Molecular Biology of the Cell