

Dear Fellow Worm Workers,

February 19, 2016

I have just returned from a very exciting meeting on archiving of manuscripts (preprints) in the biological sciences organized by Daniel Colón Ramos, Jessica Polka, Ron Vale, and Harold Varmus (See asapbio.org for more information), and I have become a believer. I am writing to encourage you to join me in changing the way that biological results are made available to the scientific community by submitting your work to an online archive at the same time or even before you submit it for publication in a traditional journal.

As many of you know manuscripts in physics, mathematics, computer science, nonlinear sciences, quantitative biology and statistics are almost universally submitted to ArXiv.org, so they are available to interested readers when the authors feel they should be made public. Approximately 80% of these manuscripts are also submitted to traditional journals, sometimes with modifications suggested by readers and even new coauthors. Submission to arXiv has become the standard in these fields. Similar archives have been developed for the biological sciences (See <http://asapbio.org/resources>). Most journals already permit preprint archiving (the biggest exceptions are the Cell Press journals; See https://en.wikipedia.org/wiki/List_of_academic_journals_by_preprint_policy and <http://www.sherpa.ac.uk/romeo/journalbrowse.php?la=en&flDnum=|&mode=simple>).

From the discussions at ASAPbio, I have come away with the following thoughts. First, manuscript submission to an open archive will speed up science. The current system of manuscript submission to journals [with review, editorial evaluation at various stages (and all to often resubmission and review), and embargo] means that work ready for public distribution is delayed for months and even years. Depositing the manuscript in a preprint archive will eliminate this downtime (even more so when the manuscript may have to be submitted to another journal). Moreover, a broader audience will have time to help improve the manuscript before its final publication. Second, the work will be universally available. All scientists and interested readers, especially those not associated with rich institutions or countries, will have equal access to the material. As such, manuscript archiving is an important step in democratizing scientific information. Third, submission to a manuscript archive establishes a time stamp documenting when results and ideas were first presented to the general scientific community. Not only can such a time stamp demonstrate priority, but because multiple version of the work can be archived, this repository can help future science historians follow the development of ideas and discoveries. Fourth, the general consensus at the meeting was that such manuscripts, even though not peer reviewed, should be considered for hiring, promotion, and grant reviews (although we all have to work on our institutions to enable this change). Such a change not only allows a more inclusive view of a person's work, but frees these review decisions from the vagaries of the manuscript reviewing process.

What am I going to do? When I returned to the lab, I found an email asking for a revision of a paper we had previously submitted to *Mol. Biol. Cell*. Today, we submitted our revised manuscript both to the journal and to bioRxiv.org. We will submit our future manuscripts and revisions simultaneously to bioRxiv.org and the journals we wish to

publish in. We welcome comments, suggestions, and criticisms of this work as it goes online and hope that the more rapid dissemination of our results will be helpful to others.

What can you do? The *C. elegans* community has always been known for its collegiality and helpfulness. The *Worm Breeders Gazette* was established so researchers could share their work with the community and for many years it served to promote collaboration, excitement, and camaraderie. I hope that submission of all our work to bioRxiv.org or another archive will continue this tradition and help all of our research.

All the best,

Marty Chalfie