# Preprints from the perspective of (junior, basic) biologists

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Future of Research

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# **>**ASAPbio

Accelerating Science and Publication in biology

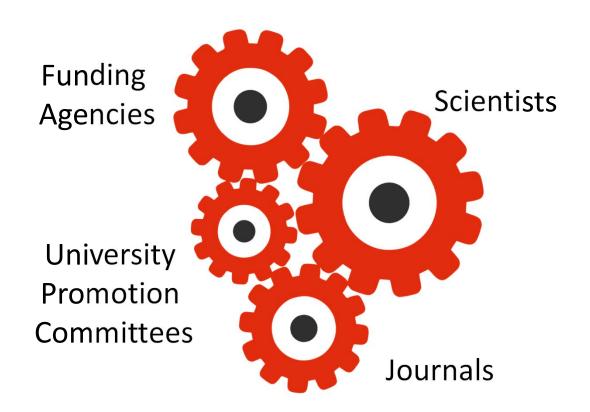
Feb. 16/17, 2016 at HHMI Headquarters



Strong consensus that broader use of preprints could become a valuable addition to the journal system

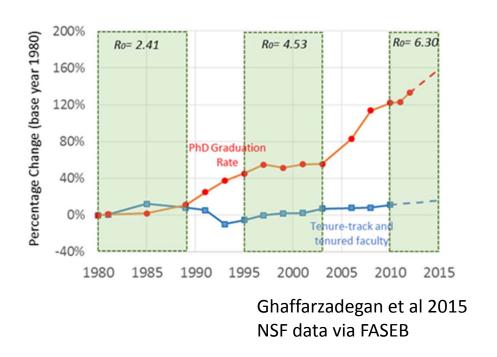
(Organizers: Daniel Colón-Ramos, Jessica Polka, Harold Varmus, Ron Vale)

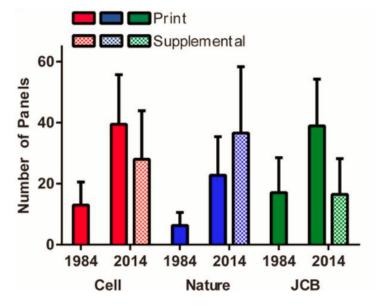
# ASAPbio.org Moving preprints forward



Ron Vale James Fraser Daniel Colón-Ramos Harold Varmus

## Framing the perspective of junior scientists





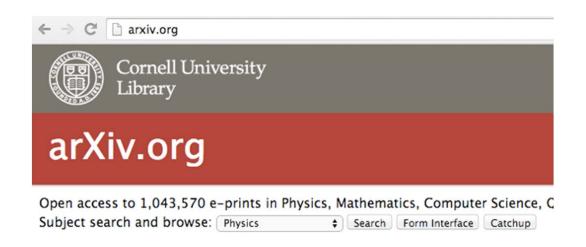
Ron Vale, bioRxiv/PNAS 2015

# Should I post a preprint?

Concerns

Benefits

# Concern: We can't be trusted to share our work before peer review



We will guard our own reputation



https://chroniclevitae.com/new s/379-seduction-in-the-postersession

## Concern: Journals won't accept my preprint

Nature and Nature journals,
Science,
PNAS,
Cell,
eLife,
J. Cell Biology,
EMBO,
ASM journals
Oxford Press journals,
J. Biol. Chemistry
MBoC
Genetics
J. Neuroscience



Search Wikipedia: list of academic journals by preprint policy Contains links to original policies

## Concern: I'm going to get scooped

ie: preprints are public but not obviously well-respected

Paul Ginsparg, founder of arXiv on scooping:

"It can't happen, since arXiv postings are accepted as date-stamped priority claims.

Eventually I came to understand that biologists do not use "scoop" in the standard journalistic sense... Instead "scooping" in the context of biology research appears to mean using information or ideas without proper attribution."

http://asapbio.org/preprint-info/preprint-faq

# Draft statement on disclosing & crediting scientific work

"As responsible citizens of the scientific community, we...will fairly cite original work presented as a preprint in our own scientific papers, just as we would cite a journal publication. We will acknowledge such work, as appropriate, in our presentations at scientific meetings."

http://asapbio.org/drafts/draft1

# Concern: How can we ensure ethical disclosure of data?

Preprint servers should (and already do!):

- Screen for human subjects research
- Ensure that authors agree to posting
- Expect that methods are present and complete



# Concern: How should preprints be covered in the media?

#### **Cell phones & cancer**





HOME	ABO
Search	

New Results

Report of Partial findings from the National Toxicology Program Carcinogenesis Studies of Cell Phone Radiofrequency Radiation in Hsd: Sprague Dawley® SD rats (Whole Body Exposure)

Michael Wyde, Mark Cesta, Chad Blystone, Susan Elmore, Paul Foster, Michael Hooth, Grace Kissling, David Malarkey, Robert Sills, Matthew Stout, 

Nigel Walker, Kristine Witt, Mary Wolfe, John Bucher doi: http://dx.doi.org/10.1101/055699

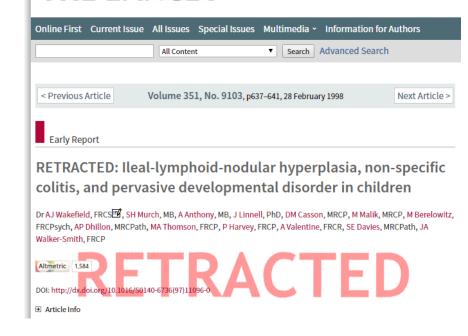
This article is a preprint and has not been peer-reviewed [what does this mean?].

Abstract	Info/History	Metrics	Preview PDF

Abstract

#### **Vaccines & autism**

#### THE LANCET



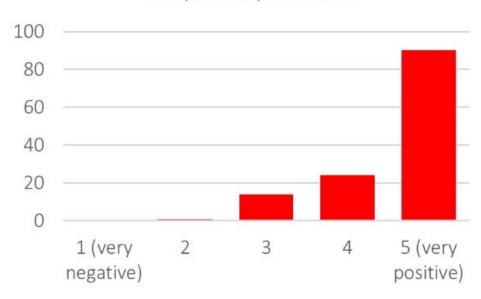
## Benefits of preprints

Are you satisfied with the current state of publishing in biology? (n = 392)



392 responses. Results at asapbio.org/survey

If you have submitted a preprint, what was your experience?



Lack of access to publicly and privately funded scientific work

Preprints are immediately available to everyone around the world

Information is being held within laboratories for longer periods of time

With preprints, new knowledge is immediately accessible, allowing research overall to advance.

Longer training periods for students and postdocs who wait for publications to apply for positions

With preprints, trainees have publicly disclosed work that can be evaluated for a PhD thesis, postdoc positions, fellowships, or jobs.

Recent work is "invisible" to grant and promotion committees

Preprints are public documents that enable committees to see the most recent work of an applicant.

Your most recent work is also invisible to your colleagues

The immediate visibility of preprints enables invitations to meetings, new collaborations, etc.

Also more feedback on your manuscript than 2-3 anonymous peer reviewers

Lack of transparency and length of review creates difficulties for establishing priority of discovery

Preprints have a time stamp and DOI number. They provide evidence of what a scientist has accomplished while the work is being improved through peer review.

## Benefits

## Concerns

Feedback
Priority
Exposure/recognition/
credit

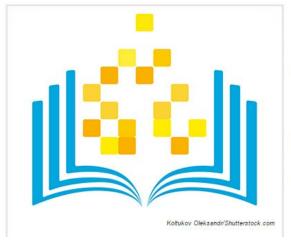
Disqualified from journal Getting scooped (being selectively ignored)

Legitimacy & discoverability

## Making preprints legitimate







The Simons Foundati important changes th First, we changed ou Investigators to post submission to a peer-include space for SF/servers; we and our consideration when m

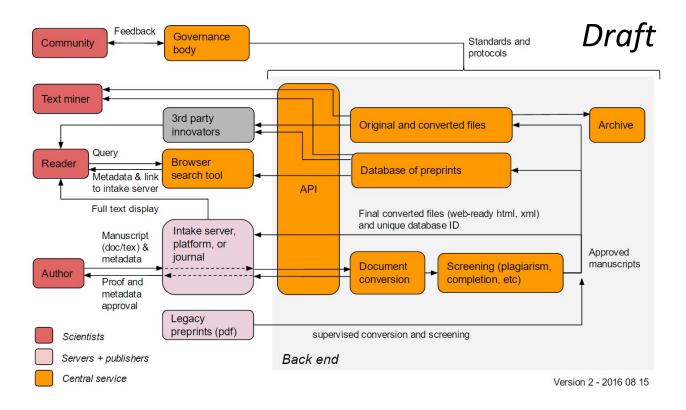
There are many reason published today in Sci publishers that results Science and Publicat

Highest on SFARI's li results) out to the res always comes with po SFARI receives appli which we know unput "First, we changed our grant award letter to strongly encourage all SFARI Investigators to post preprints on recognized servers in parallel with (or even before) submission to a peer-reviewed journal. Second, our biosketch form was updated to include space for SFARI grant applicants to list manuscripts deposited in preprint servers;"

Simons Foundation, May 20 2016

## Making preprints discoverable

Proposing an aggregator (similar to PubMed or PubMed Central) for preprints



http://asapbio.org/summary-of-a-central-preprint-service-model