# Preprints: What, Why and How

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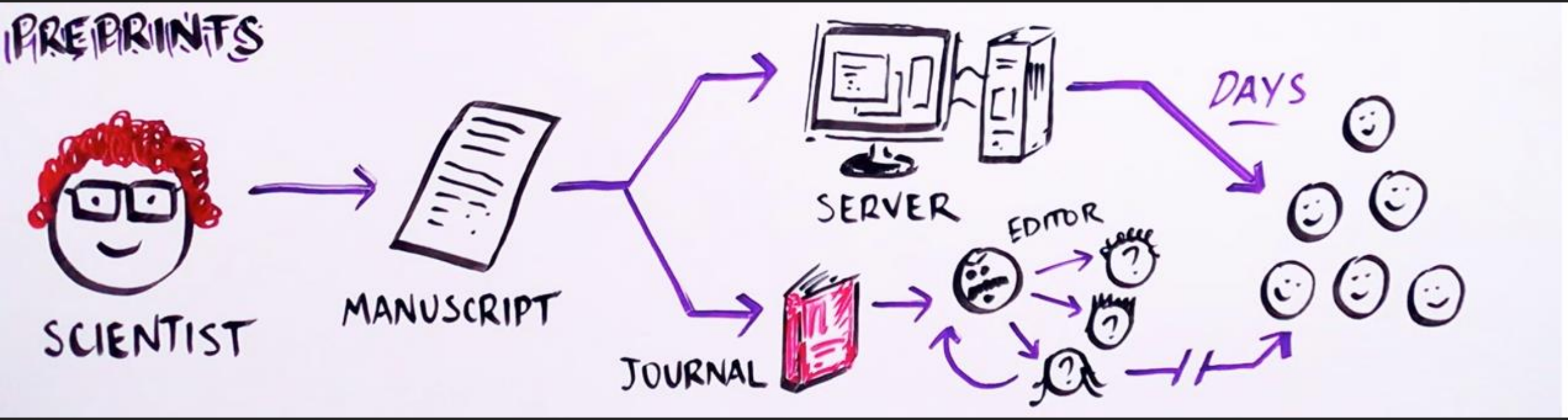
# Disclosure

PCORI Board; United HealthCare and Aetna Advisory Committees; Grant from JNJ to distribute clinical trial data; grant from Medtronic, in collaboration with FDA, to improve device surveillance; contracts with CMS to develop performance measures; contract with Blue Cross for technology assessment; AHRQ and NIH grants; Founder, Hugo personal health information platform.

# Preprints




https://www.youtube.com/watch?v=2zMgY8Dx9co

# Preprints

# Not everyone is a fan…



EDITORIAL

## The Rush to Publication
### An Editorial and Scientific Mistake

Howard Bauchner, MD

**The world moves** at a far faster pace than even a decade ago. Instantaneous access to electronic communication via email and social media is available 24 hours a day, virtually anywhere in the world, on the ground and in the air, with video and audio on demand. Thus, no one ever needs to be—or ever is—disconnected from the world.

The speed of communication has clearly affected clinical and laboratory research. There appears to be an increasing rush to publish, or at least to make the results of studies immediately publicly available. It is unclear if flawed science is more common than in the past, but the number of accounts of serious problems with scientific reports appears to be increasing, with more high-profile tation, and their own internal motivations, often request rapid review and publication by journals. Many journals acquiesce to these requests, in turn, placing more pressure on peer reviewers, most of whom are investigators, to complete review in a matter of days, and more pressure on journal staff and resources to expedite article preparation and distribution.

New interest in preprint servers in clinical medicine increases the likelihood of premature dissemination and public consumption of clinical research findings prior to rigorous evaluation and peer review. At *JAMA* and throughout the JAMA Network journals, the conclusions and interpretations of many research articles change substantially between the initially sub-

JAMA September 26, 2017 Volume 318, 1109-10

Progress in human health is measured in years, not days, weeks, or months. Major breakthroughs in clinical medicine are rare, with very few research findings likely to be implemented immediately. No drug or device, regardless of how effective, is likely to improve health outcomes more than many common and important clinical practices such as measuring blood pressure and treating hypertension with well-known drugs that have been proven to be safe and effective.

It usually takes years for interventions that improve patient outcomes to become part of routine practice and few novel interventions are likely to be more important than those already known to be effective. Improving the health of the world's population has little to do with the speed of publication (except in the case of major public health emergencies),[12] but rather with effective interventions that have been properly tested, appropriate implementation of known or new interventions, and sustainable improvements in health systems.

JAMA Vol 318, 1109-10

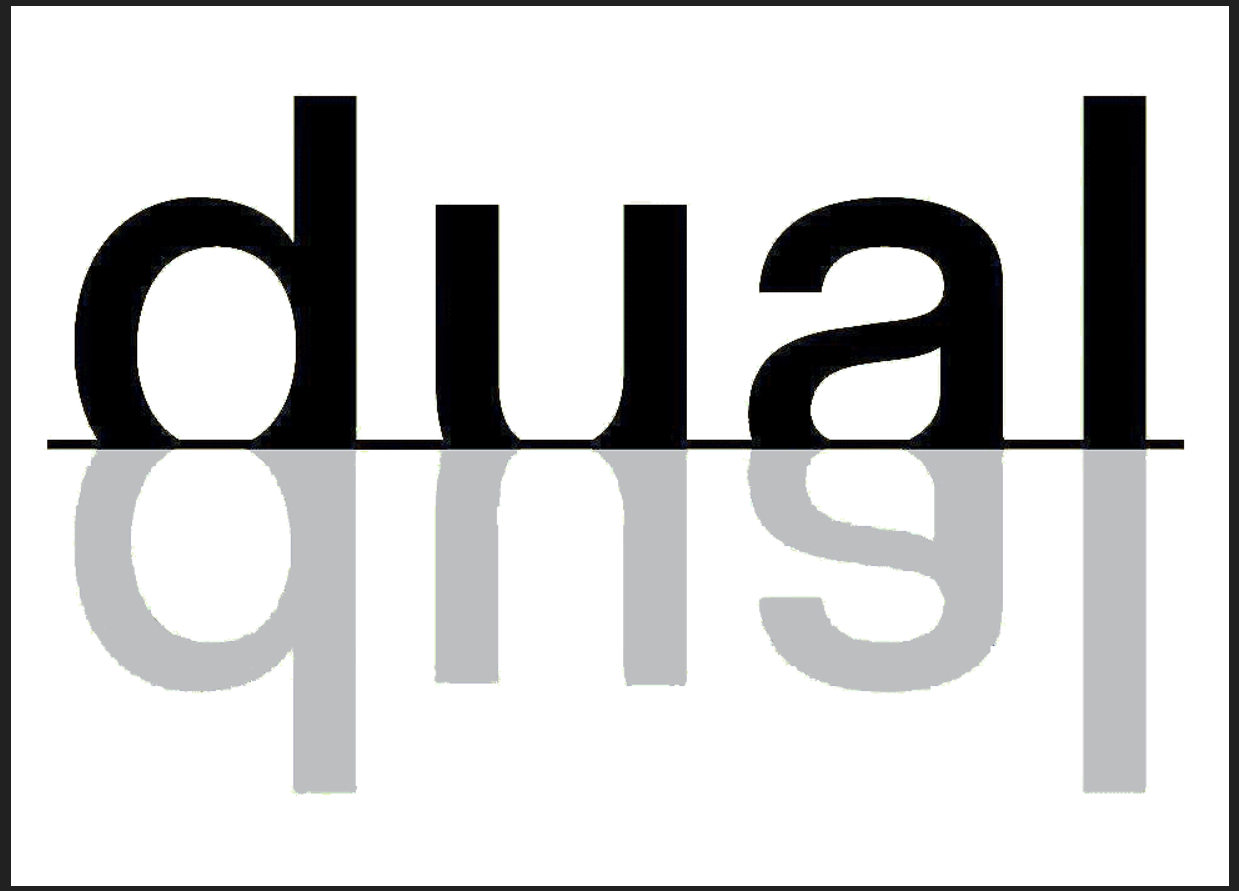
For most articles, public consumption of research findings prior to peer review will have little influence on health, but for some articles, the effect could be devastating for some patients if the results made public prior to peer review are wrong or incorrectly interpreted.

JAMA September 26, 2017 Volume 318, 1109-10

Sacrificing adequate and thoughtful peer review and editorial assessment is a mistake for research in medicine. Timely assessment and dissemination of medical research findings is certainly important, but for most articles, rushing to publication in days or weeks will not improve health outcomes.

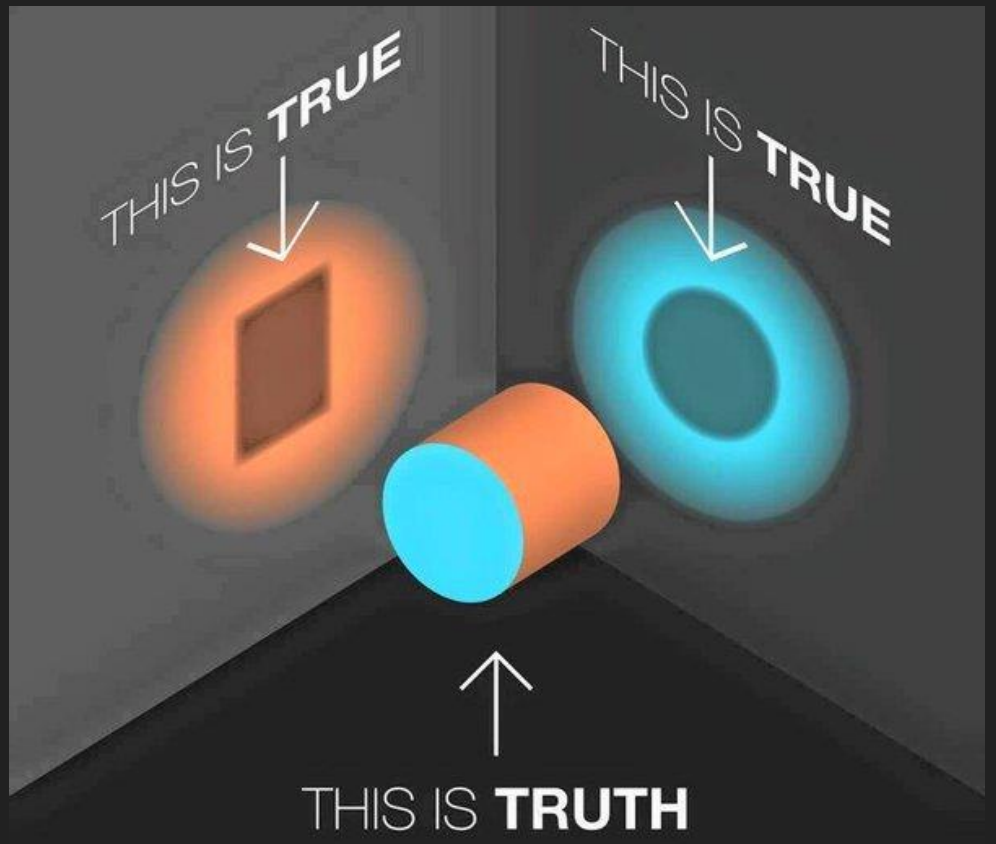
JAMA September 26, 2017 Volume 318, 1109-10

# Dual Nature of Medical Journals



# PEER REVIEW MATTERS

# Please try to keep an open mind




@emmyzen

# What problem are we trying to solve?

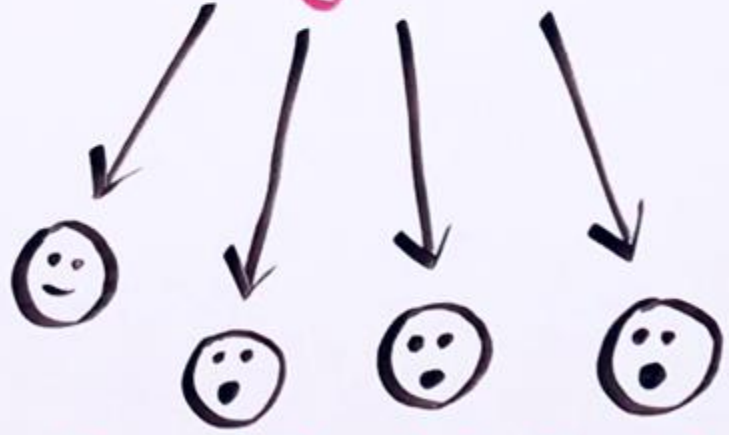
- How do we easily and rapidly archive and share information with other scientists to accelerate research, enhance collaboration, reduce waste, increase transparency?

BUT... IS THERE A BETTER WAY?

IN 1991:

PAUL GINSPARG
PHYSICIST

arXiv.org A PREPRINT SERVER



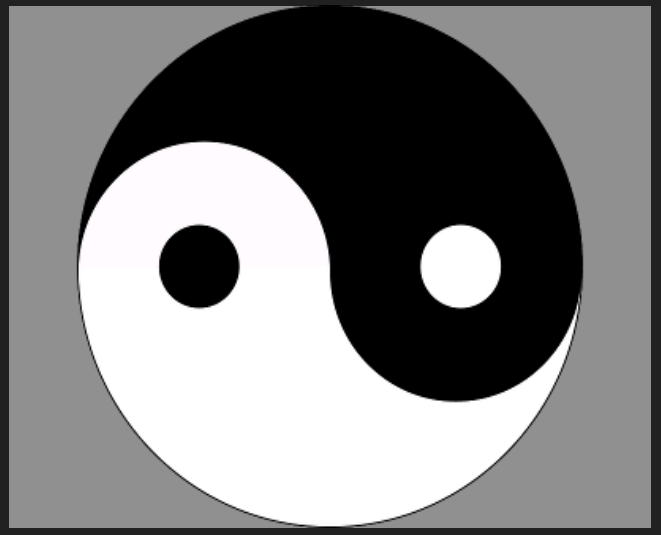
arXiv: > 100,000 papers EACH YEAR!

= RAPID COMMUNICATION

https://www.youtube.com/watch?v=2zMgY8Dx9co

# Preprint Servers

- Complementary to, and not a replacement for, peer review journals.



# Science for Scientists

# DOI (Digital Object Identifier)

- DOI is unique alphanumeric string assigned by registration agency (**International DOI Foundation**) to identify content and provide a persistent link to its location on the Internet.

# Pre-peer review results already released…

- Major journals already allow pre-peer review release of information.

# For example…

- Medical meetings
- Clinicaltrials.gov
- Press releases

# But…

- Information often incomplete
- May not be citable
- May not be searchable

# And…

- No opportunity for community comments/dialogue

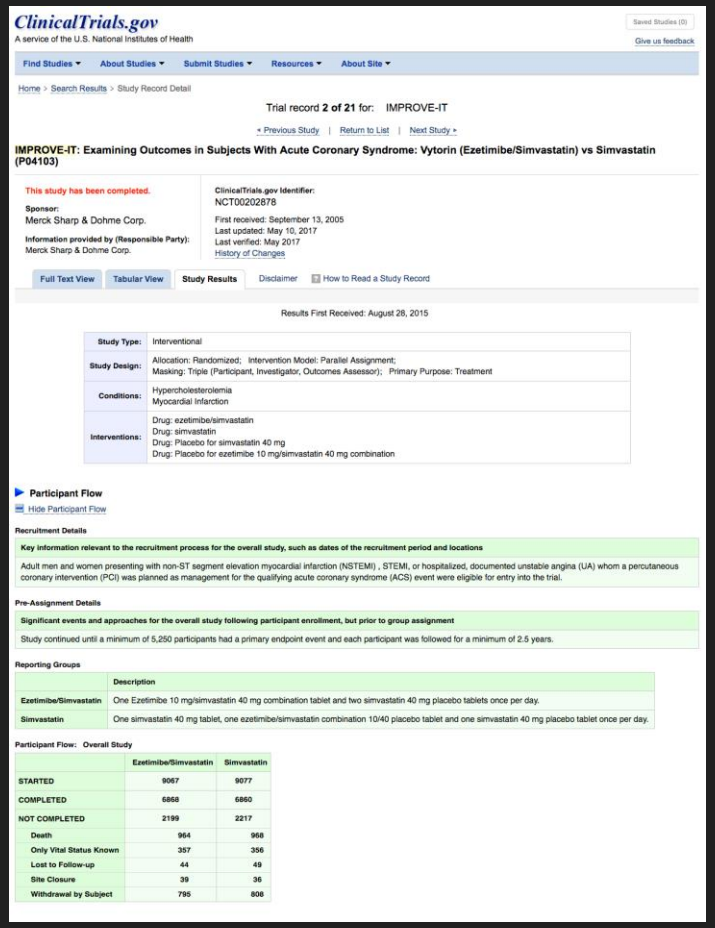
# IMPROVE-IT Trial

**Study Results Reported**

Results First Announced:
August 28, 2014

Trial First Presented:
November 17, 2014

Paper published:
June 3, 2015



ClinicalTrials.gov
A service of the U.S. National Institutes of Health

Find Studies | About Studies | Submit Studies | Resources | About Site

Home > Search Results > Study Record Detail

Trial record 2 of 21 for: IMPROVE-IT

< Previous Study | Return to List | Next Study >

**IMPROVE-IT: Examining Outcomes in Subjects With Acute Coronary Syndrome: Vytorin (Ezetimibe/Simvastatin) vs Simvastatin (P04103)**

This study has been completed.

Sponsor:
Merck Sharp & Dohme Corp.

Information provided by (Responsible Party):
Merck Sharp & Dohme Corp.

ClinicalTrials.gov Identifier:
NCT00202878

First received: September 13, 2005
Last updated: May 10, 2017
Last verified: May 2017
History of Changes

Full Text View | Tabular View | Study Results | Disclaimer | How to Read a Study Record

Results First Received: August 28, 2015

| | |
|---|---|
| Study Type: | Interventional |
| Study Design: | Allocation: Randomized; Intervention Model: Parallel Assignment; Masking: Triple (Participant, Investigator, Outcomes Assessor); Primary Purpose: Treatment |
| Conditions: | Hypercholesterolemia<br>Myocardial Infarction |
| Interventions: | Drug: ezetimibe/simvastatin<br>Drug: simvastatin<br>Drug: Placebo for simvastatin 40 mg<br>Drug: Placebo for ezetimibe 10 mg/simvastatin 40 mg combination |

Participant Flow

Hide Participant Flow

Recruitment Details

Key information relevant to the recruitment process for the overall study, such as dates of the recruitment period and locations

Adult men and women presenting with non-ST segment elevation myocardial infarction (NSTEMI) , STEMI, or hospitalized, documented unstable angina (UA) whom a percutaneous coronary intervention (PCI) was planned as management for the qualifying acute coronary syndrome (ACS) event were eligible for entry into the trial.

Pre-Assignment Details

Significant events and approaches for the overall study following participant enrollment, but prior to group assignment

Study continued until a minimum of 5,250 participants had a primary endpoint event and each participant was followed for a minimum of 2.5 years.

Reporting Groups

| | Description |
|---|---|
| Ezetimibe/Simvastatin | One Ezetimibe 10 mg/simvastatin 40 mg combination tablet and two simvastatin 40 mg placebo tablets once per day. |
| Simvastatin | One simvastatin 40 mg tablet, one ezetimibe/simvastatin combination 10/40 placebo tablet and one simvastatin 40 mg placebo tablet once per day. |

Participant Flow: Overall Study

| | Ezetimibe/Simvastatin | Simvastatin |
|---|---|---|
| STARTED | 9067 | 9077 |
| COMPLETED | 6868 | 6860 |
| NOT COMPLETED | 2199 | 2217 |
| Death | 964 | 968 |
| Only Vital Status Known | 357 | 356 |
| Lost to Follow-up | 44 | 49 |
| Site Closure | 39 | 36 |
| Withdrawal by Subject | 795 | 808 |

# Lack options for less publishable products…

- Protocols/Technical reports
- Quality innovations
- White papers

# Unpublished Trial Data

- Many trials are never reported – or are delayed by years.

**We will work towards a timeframe of 12 months from primary study completion (the last visit of the last subject for collection of data on the primary outcome) as the global norm for summary results disclosure.**

### Registration of clinical trials

Before any clinical trial is initiated (at any Phase) its details must be registered in a publicly available, free to access, searchable clinical trial registry complying with WHO's international agreed standards (www.who.int/ictrp). The clinical trial registry entry must be made before the first subject receives the first medical intervention in the trial (or as soon as possible afterwards). Clinical trial registry records should be updated as necessary to include final enrolment numbers achieved, and the date of primary study completion (defined as the last data collection timepoint for the last subject for the primary outcome measure). If clinical trials are terminated, their status should be updated to note the date of termination, and to report the numbers enrolled up to the date of termination.

Completeness and accuracy of the clinical trial registry records can be a limiting factor for use of information from the registries, and it is encouraged that care is taken to ensure good quality registry entries.

### Reporting timeframes for clinical trials

We jointly agree that summary results of clinical trials should be made publicly available in a timely manner following primary study completion. There are two main modalities for this to occur. By posting to the results section of the clinical trial registry and by journal publication. We will work towards a timeframe of 12 months from primary study completion (the last visit of the last subject for collection of data on the primary outcome) as the global norm for summary results disclosure . As timelines for publication in a journal are not fully within the control of the sponsor or investigator, this joint statement focuses on use of registries – such as clinicaltrials.gov and EU-CTR - to meet this results disclosure expectation. Publication in a journal is also an expectation, with an indicative timeframe of 24 months from study completion to allow for peer review etc. Access to a sufficiently detailed clinical trial protocol is necessary in order to be able to interpret summary results. Therefore we also encourage development of requirements that the protocols are made publicly available no later than the time of the summary results disclosure as part of the clinical trial registry summary results information (including amendments approved by ethics committees/institutional review boards, and either as uploaded electronic document formats such as pdfs or links to the pdf).

At the time of the initial grant submission, the plan for public disclosure of results should be included, including specific time bound commitments. Reasonable funds to enable compliance with these considerations is a cost eligible item in clinical trial budgets.

### Trial ID in clinical trial publication

The Trial ID or registry identifier code/number should be included in all publications of clinical trials, and should be provided as part of the abstract to PubMed and other bibliographic search databases for easy linking of trial related publications with clinical trial registry site records. This is essential for linking journal publications with registry records.

### Registration and reporting of past trials

Reporting of previous trials realises the value of funding; therefore the contribution made from reporting previous trials, whatever their results, will be considered in the assessment of a funding proposal. When a PI applies for new funding, they may be asked to provide a list of all previous trials on which they were PI within a specified timeframe and their reporting status, with an explanation where trials have remained unreported.

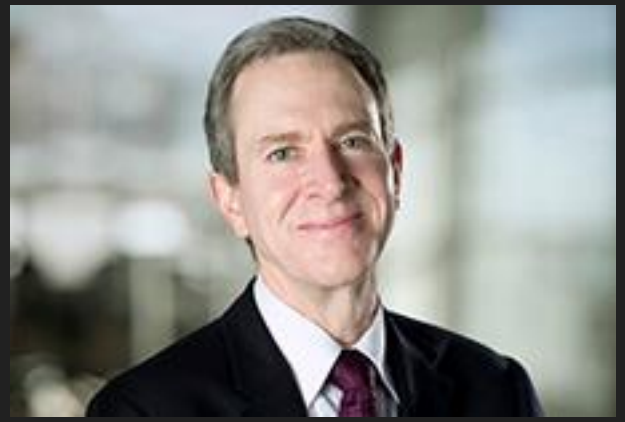
http://www.who.int/ictrp/results/jointstatement/en/

# Jeremy Farrar, Director Wellcome Trust

- "Not only will this help ensure that these research findings are more discoverable, but it will also reduce reporting biases, which currently favor publication of trials which have a positive outcome."

# Trevor Mundel, Pres GH Gates Foundation

- "It's a 21st-century best practice – and an essential part of the social contract that underlies medical research – that clinical trial data should be made publicly available less than one year after a clinical trial's completion."



NIH National Institutes of Health
*Turning Discovery Into Health*

# In general, results information must be submitted no later than one year after the completion date of the applicable drug clinical trial.



**DEPARTMENT OF HEALTH AND HUMAN SERVICES**

**42 CFR Part 11**

**[Docket Number NIH-2011-0003]**

**RIN: 0925-AA55**

**Clinical Trials Registration and Results Information Submission**

**AGENCY:** National Institutes of Health, Department of Health and Human Services.

**ACTION:** Final Rule.

**SUMMARY:** This final rule details the requirements for submitting registration and summary results information, including adverse event information, for specified clinical trials of drug products (including biological products) and device products and for pediatric postmarket surveillances of a device product to ClinicalTrials.gov, the clinical trial registry and results data bank operated by the National Library of Medicine (NLM) of the National Institutes of Health (NIH). This rule provides for the expanded registry and results data bank specified in Title VIII of the Food and Drug Administration Amendments Act of 2007 (FDAAA) to help patients find trials for which they might be eligible, enhance the design of clinical trials and prevent duplication of unsuccessful or unsafe trials, improve the evidence base that informs clinical care, increase the efficiency of drug and device development processes, improve clinical research practice, and build public trust in clinical research. The requirements apply to the responsible



party (meaning the sponsor or designated principal investigator) for certain clinical trials of drug products (including biological products) and device products that are regulated by the Food and Drug Administration (FDA) and for pediatric postmarket surveillances of a device product that are ordered by FDA.

**DATES:** These regulations are effective on January 18, 2017. Additional information on the effective date and the compliance date can be found in Section IV.F.

https://s3.amazonaws.com/public-inspection.federalregister.gov/2016-22129.pdf

# BMJ (@bmj_latest)

**Only 29% of completed clinical trials conducted by the faculty at major academic centers were published within two years of completion and only 13% reported results on ClinicalTrials.gov**

RESEARCH

OPEN ACCESS

## Publication and reporting of clinical trial results: cross sectional analysis across academic medical centers

Ruijun Chen,[1] Nihar R Desai,[2,3] Joseph S Ross,[3,4,5,6] Weiwei Zhang,[3] Katherine H Chau,[1] Brian Wayda,[7] Karthik Murugiah,[8] Daniel Y Lu,[9] Amit Mittal,[8] Harlan M Krumholz[2,3,5,6]

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Additional material is published online only. To view please visit the journal online.
Cite this as: *BMJ* 2016;352:i637
http://dx.doi.org/10.1136/bmj.i637
Accepted: 19 January 2016

**ABSTRACT**

**OBJECTIVE**
To determine rates of publication and reporting of results within two years for all completed clinical trials registered in ClinicalTrials.gov across leading academic medical centers in the United States.

**DESIGN**
Cross sectional analysis.

**SETTING**
Academic medical centers in the United States.

**PARTICIPANTS**
Academic medical centers with 40 or more completed interventional trials registered on ClinicalTrials.gov.

**METHODS**
Using the Aggregate Analysis of ClinicalTrials.gov database and manual review, we identified all interventional clinical trials registered on ClinicalTrials.gov with a primary completion date between October 2007 and September 2010 and with a lead investigator affiliated with an academic medical center.

**MAIN OUTCOME MEASURES**
The proportion of trials that disseminated results, defined as publication or reporting of results on ClinicalTrials.gov, overall and within 24 months of study completion.

**RESULTS**
We identified 4347 interventional clinical trials across 51 academic medical centers. Among the trials, 1005 (23%) enrolled more than 100 patients, 1216 (28%) were double blind, and 2169 (50%) were phase II through IV. Overall, academic medical centers disseminated results for 2892 (66%) trials, with 1560 (35.9%) achieving this within 24 months of study completion. The proportion of clinical trials with results disseminated within 24 months of study completion ranged from 16.2% (6/37) to 55.3% (57/103) across academic medical centers. The proportion of clinical trials published within 24 months of study completion ranged from 10.8% (4/37) to 40.3% (31/77) across academic medical centers, whereas results reporting on ClinicalTrials.gov ranged from 1.6% (2/122) to 40.7% (72/177).

**CONCLUSIONS**
Despite the ethical mandate and expressed values and mission of academic institutions, there is poor performance and noticeable variation in the dissemination of clinical trial results across leading academic medical centers.

**WHAT IS ALREADY KNOWN ON THIS TOPIC**

Timely dissemination of clinical trial results is required to honor the commitment of study participants, advance the research enterprise, and improve clinical care, but little is known about the performance of academic medical centers in this endeavor

Previous limited studies have shown that between 25% and 50% of clinical trials remain unpublished, sometimes years after completion, and the performance of academically based investigators in publishing and reporting of trial results is suboptimal

**WHAT THIS STUDY ADDS**

Academic medical centers showed noticeable variation and poor performance in the dissemination of clinical trial results

Only 29% of completed clinical trials conducted by the faculty at major academic centers were published within two years of completion and only 13% reported results on ClinicalTrials.gov

Additional tools and mechanisms are needed to rectify this lack of timely reporting and publication, as they impair the research enterprise and threaten to undermine evidence based clinical decision making

### Introduction

Randomized clinical trials are the ideal means for evaluating the efficacy and safety of medical drugs and devices. Timely dissemination of the findings from clinical trials is a prerequisite for ensuring that clinical decisions made by patients and physicians reflect the best scientific evidence, and that future scientific investigation benefits from previous inquiry. Dissemination is principally achieved through publication in peer reviewed biomedical journals as well as through public reporting of results on clinical trial registries.[1-4] However, a large body of research found that between 25% and 50% of clinical trials remain unpublished, sometimes years after study completion.[5-9] Similarly, studies have shown that the results of many clinical trials are not reported promptly on ClinicalTrials.gov.[10-15]

Academic medical centers play a critical role in the clinical trials research enterprise. However, studies suggest that academically based investigators perform suboptimally in publishing[8 16] and reporting trial results.[14 15]

We carried out a comprehensive examination of the rates of publication and reporting of results within two years for all completed clinical trials registered in ClinicalTrials.gov across more than 50 academic medical centers in the United States with active clinical research programs.

### Methods

**Data source and study sample**

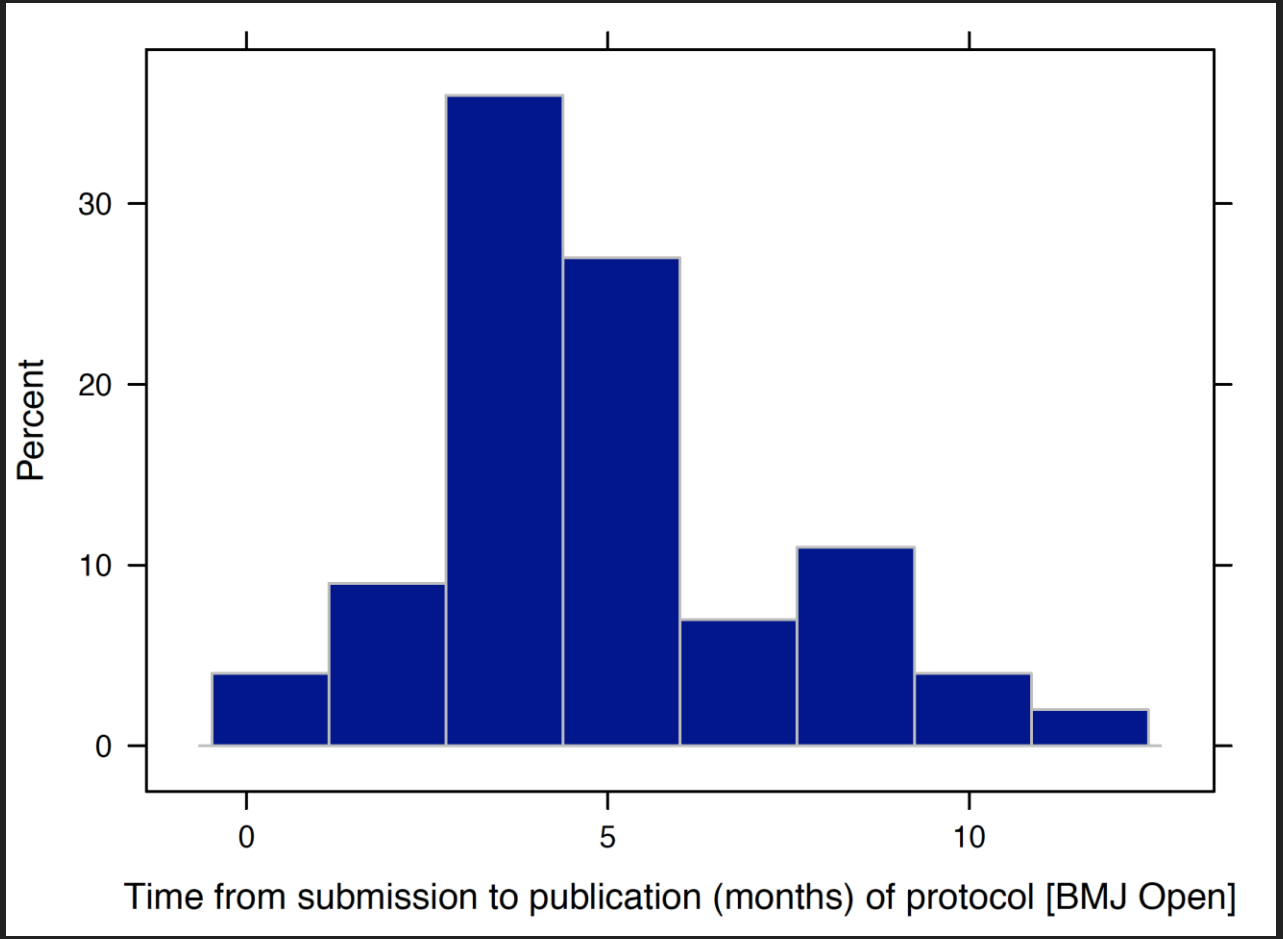
We used data from ClinicalTrials.gov through the Aggregate Analysis of ClinicalTrials.gov (AACT) database, reflecting data downloaded as of 27 September 2013, under the Clinical Trials Transformation Initiative. We identified all interventional clinical trials registered on



http://www.bmj.com/content/bmj/352/bmj.i637.full.pdf

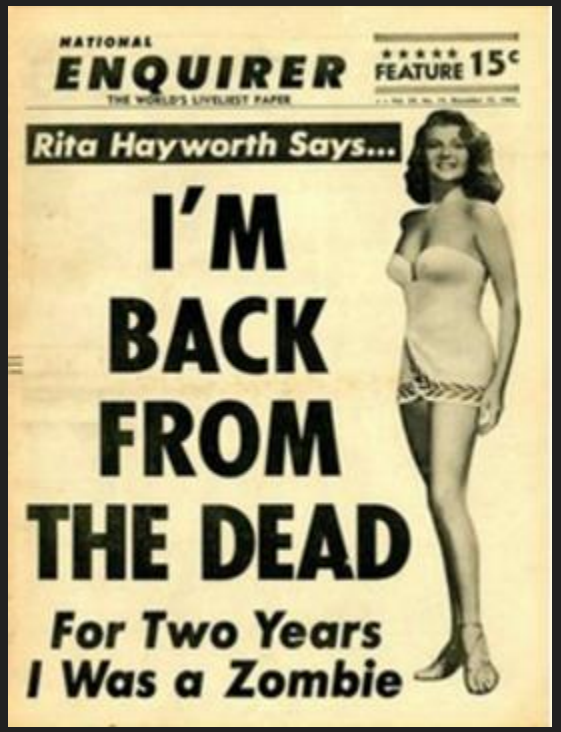
# And then there is speed…

# Protocol Papers

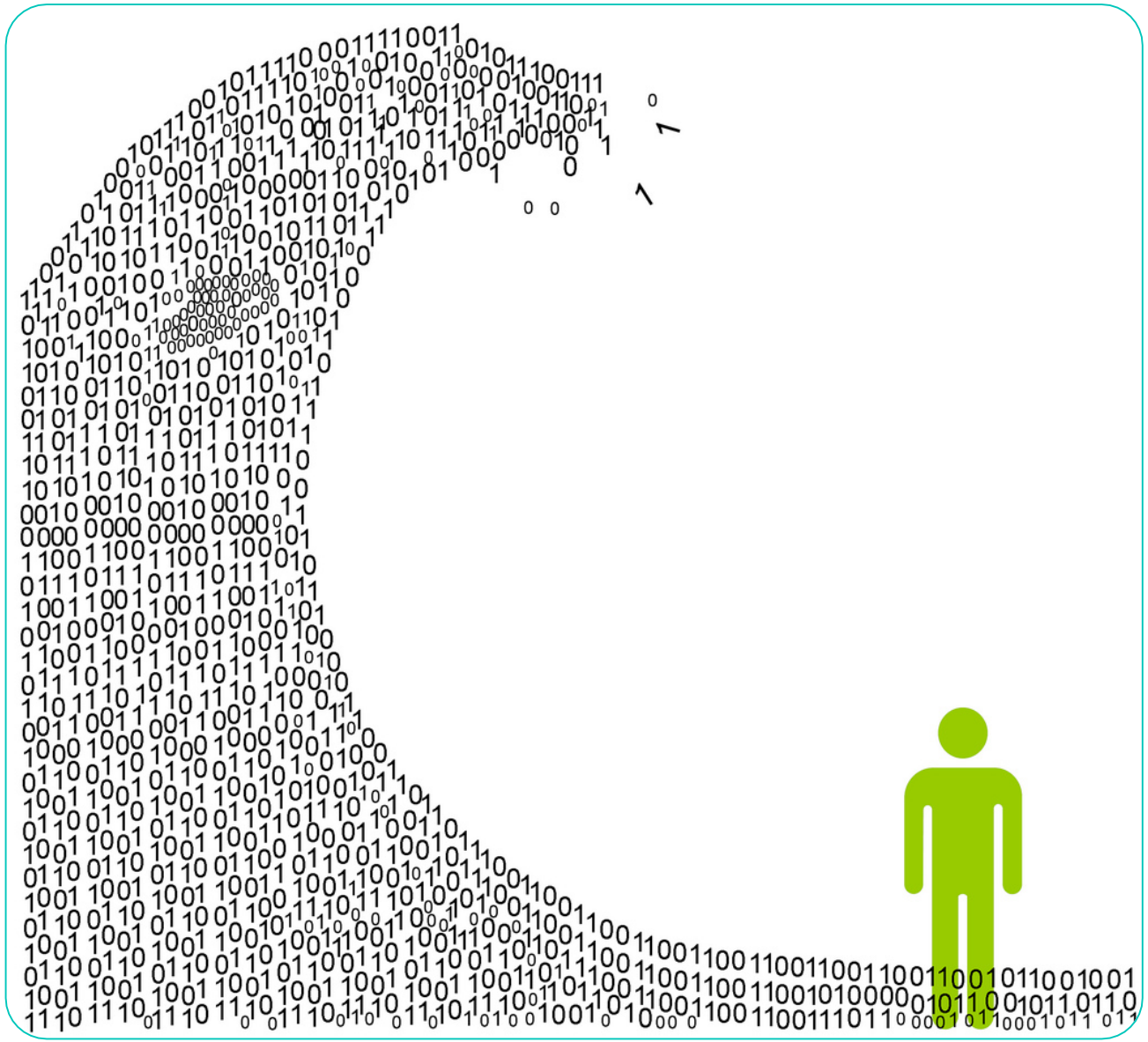


# Concern: Fake News

- There is already too much fake information out there.




http://www.intellectualtakeout.org/blog/5-reasons-why-fake-news-here-stay



# Concern: There is already too much information.

https://www.flickr.com/photos/intersectionconsulting/7537238368

# About volume…


https://hcsmmonitor.com/2015/10/29/information-overload/

# Concern: Public may act prematurely. Harm may accrue.


https://commons.wikimedia.org/wiki/File:Singapore_Road_Signs_-_Warning_Sign_-_Danger.svg

# Concern: May undermine Clinicaltrials.gov

# Risk Mitigation

- High-level screen
- IRB-approved or exempted
- Require posting on clinicaltrials.gov
- Corresponding author: ORCHID
- Labeling and watermarks

# Concern: Publication

- Will this jeopardize peer-review publication?

# Journal Policies

- Many journals allow preprints, including BMJ, Science, Nature and others.

Individual journals [edit]

| Journal | Publisher | Policy type | Policy text | Source |
|---|---|---|---|---|
| The BMJ (formerly British Medical Journal) | BMJ Publishing Group Ltd | Compatible | Preprint ("Original manuscript submitted to BMJ") can be posted. | [36] |
| New England Journal of Medicine | | Incompatible | NEJM expects that the articles it publishes will not have been published or released elsewhere before they are published in NEJM. The policy page does not explicitly mention preprints; however, the journal has come under public scrutiny. | [135] |
| FASEB Journal | FASEB | Compatible/Compatible | FASEB permits the submission of preprint manuscripts, which will undergo the same review process as "non-preprint" manuscripts. Preprint submissions must meet the following criteria and conditions: [...] | [9] |
| Science | AAAS | Compatible | *Science* will not consider any original research paper or component of a research paper that has been published or is under consideration for publication elsewhere. Distribution on the Internet may be considered prior publication and may compromise the originality of the paper as a submission to *Science*, although we do allow posting of research papers on not-for-profit preprint servers such as arxiv.org and bioRxiv. Please contact the editors with questions regarding allowable postings to other servers. | [40] |
| PNAS | NAS | Compatible | Posting to Preprint Servers, such as arXiv or bioRxiv, is permitted. See the PNAS statement on prior publication for details, and see section vii for media embargo policies. | [4] |
| Current Biology | Cell | Compatible | We will consider papers previously posted on a preprint server such as arXiv or bioRxiv. We are very interested to hear from researchers about their motivations for posting and to discuss with them whether it is the best approach for their paper, so we strongly encourage authors who are planning to submit to us to contact the editors first to discuss their specific paper and situation. This policy only applies to the original submitted version of the paper; we do not support posting of revisions that respond to editorial input and peer review or the final published version to preprint servers. Also, our prepublication publicity policies with regard to coverage in the broader media still apply to studies posted on preprint servers. | [41] |
| Current Plant Biology | Elsevier | Compatible | All manuscripts submitted are peer-reviewed before being accepted for publication to Current Plant Biology. By submitting a manuscript to CPB authors state that the manuscript has not being submitted elsewhere, and that it contains unpublished data. Current Plant Biology does not accept work that has already been published elsewhere in the peer-reviewed literature. Activities such as publication of a short abstract, presentation of data to a scientific meeting, posting of the manuscript to any of the author's personal website, in an online institutional repository or on a freely accessible preprint server such as arXiv or bioRxiv, are not considered prior publication and do not exclude consideration of manuscript by CPB. Publication of a paper in the proceedings of a scientific meeting generally constitutes prior publication | |
| Journal of Neuroscience | | Compatible | The Journal of Neuroscience generally does not accept manuscripts that have been previously published. An exception is made for manuscripts that have been posted on the Internet for the purpose of receiving commentary from the community. Such posting is typically done at a pre-publication repository that has been designed for the purpose, but posting on an institutional web site or other Internet location is acceptable | [42] |
| Journal of Theoretical Biology | | Compatible | In general, Elsevier is permissive with respect to authors and electronic preprints. If an electronic preprint of an article is placed on a public server prior to its submission to an Elsevier journal or where a paper was originally authored as a thesis or dissertation, this is not generally viewed by Elsevier as "prior publication" | [43] |
| Cell | Cell | Compatible | We will consider papers previously posted on a preprint server such as arXiv or bioRxiv. We are very interested to hear from researchers about their motivations for posting and to discuss with them whether it is the best approach for their paper, so we strongly encourage authors who are planning to submit to us to contact the editors first to discuss their specific paper and situation. This policy only applies to the original submitted version of the paper; we do not support posting of revisions that respond to editorial input and peer review or the final published version to preprint servers. Also, our prepublication publicity policies with regard to coverage in the broader media still apply to studies posted on preprint servers. | [44] |
| Neuron | Cell | Compatible | We will consider papers previously posted on a preprint server such as arXiv or bioRxiv. We are very interested to hear from researchers about their motivations for posting and to discuss with them whether it is the best approach for their paper, so we strongly encourage authors who are planning to submit to us to contact the editors first to discuss their specific paper and situation. This policy only applies to the original submitted version of the paper; we do not support posting of revisions that respond to editorial input and peer review or the final published version to preprint servers. Also, our prepublication publicity policies with regard to coverage in the broader media still apply to studies posted on preprint servers. | [45] |
| Developmental Cell | Cell | Compatible | We will consider papers previously posted on a preprint server such as arXiv or bioRxiv. We are very interested to hear from researchers about their motivations for posting and to discuss with them whether it is the best approach for their paper, so we strongly encourage authors who are planning to submit to us to contact the editors first to discuss their specific paper and situation. This policy only applies to the original submitted version of the paper; we do not support posting of revisions that respond to editorial input and peer review or the final published version to preprint servers. Also, our prepublication publicity policies with regard to coverage in the broader media still apply to studies posted on preprint servers. | [46] |
| Molecular Cell | Cell | Compatible | We will consider papers previously posted on a preprint server such as arXiv or bioRxiv. We are very interested to hear from researchers about their motivations for posting and to discuss with them whether it is the best approach for their paper, so we strongly encourage authors who are planning to submit to us to contact the editors first to discuss their specific paper and situation. This policy only applies to the original submitted version of the paper; we do not support posting of revisions that respond to editorial input and peer review or the final published version to preprint servers. Also, our prepublication publicity policies with regard to coverage in the broader media still apply to studies posted on preprint servers. | [47] |
| Journal of Cell Biology | Rockefeller University Press | Compatible | Posting of un-refereed manuscripts to a community preprint server by the author does not preclude consideration for publication. Authors who post to a community preprint server should identify the preprint server and include the accession # or doi in their cover letter. Upon publication, authors should request that community preprint server acknowledge that the article has published and that the journal reference [including DOI link to the published article] be included. | [48] |
| Journal of Experimental Medicine | Rockefeller University Press | Compatible | Posting of un-refereed manuscripts to a community preprint server by the author does not preclude consideration for publication. Authors who post to a community preprint server should identify the preprint server and include the accession # or doi in their cover letter. Upon publication, authors should request that community preprint server acknowledge that the article has published and that the journal reference [including DOI link to the published article] be included. | [49] |
| Journal of General Physiology | Rockefeller University Press | Compatible | Posting of un-refereed manuscripts to a community preprint server by the author does not preclude consideration for publication. Authors who post to a community preprint server should identify the preprint server and include the accession # or doi in their cover letter. Upon publication, authors should request that community preprint server acknowledge that the article has published and that the journal reference [including DOI link to the published article] be included. | [50] |
| Molecular Biology and Evolution | Oxford Journals | Compatible | Author can archive a pre-print version. Author cannot archive a post-print version | [51] |
| Nucleic Acids Research | Oxford Journals | Compatible | NAR allows authors to deposit preprints in community preprint servers such as ArXiv.org, provided that entries are updated to acknowledge that the article has been accepted/published by NAR. Please click here for our full self-archiving policy. Our policy towards such archives is kept under review, but we currently do not consider articles that have already been posted in Nature Precedings or PLoS Currents. Authors are encouraged to contact the editorial office if they are in any doubt about prior submission. | [52] |
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| Journal | Publisher | Policy type | Policy text |
|---|---|---|---|
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# Journal Policies

| | | |
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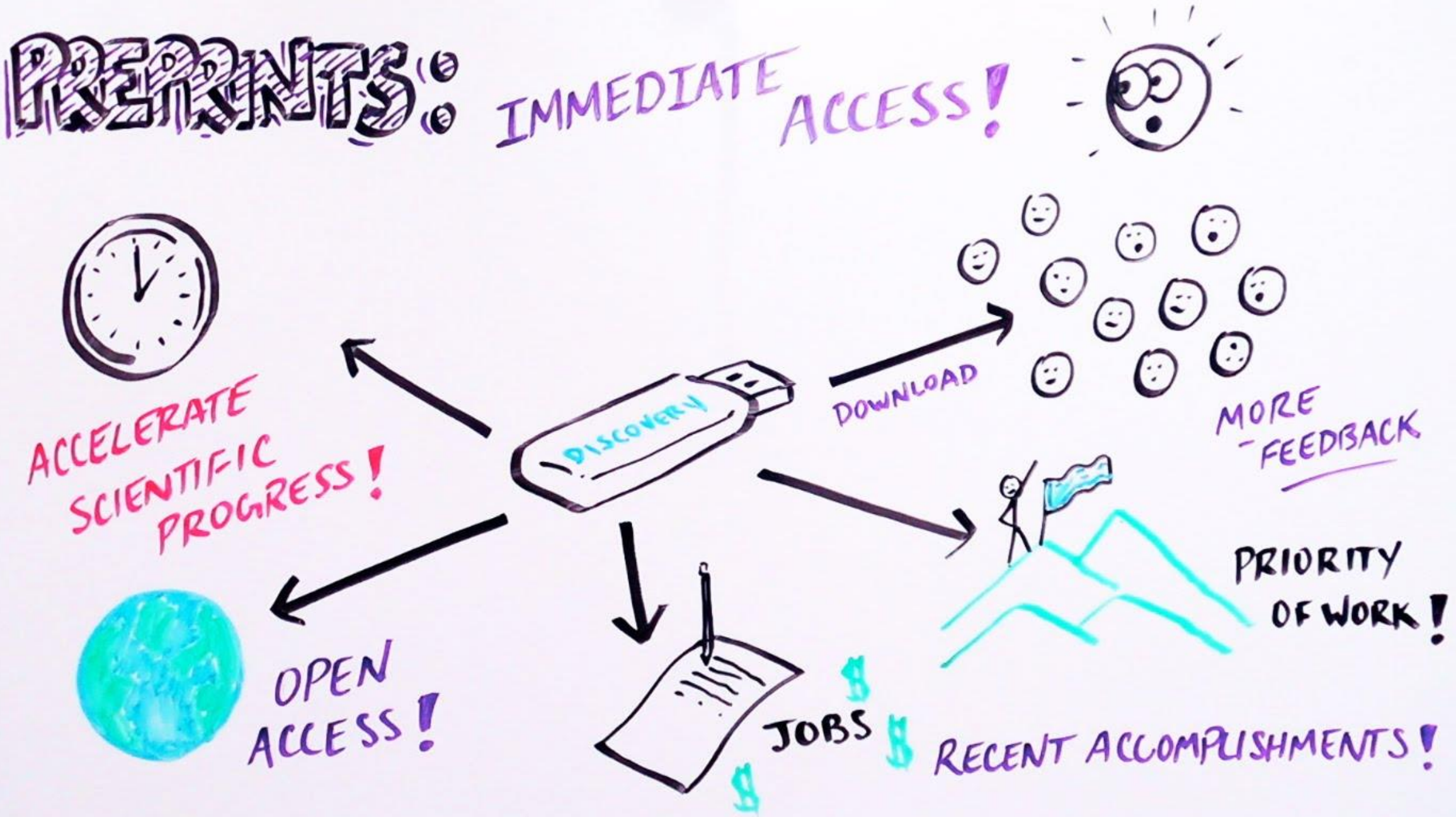


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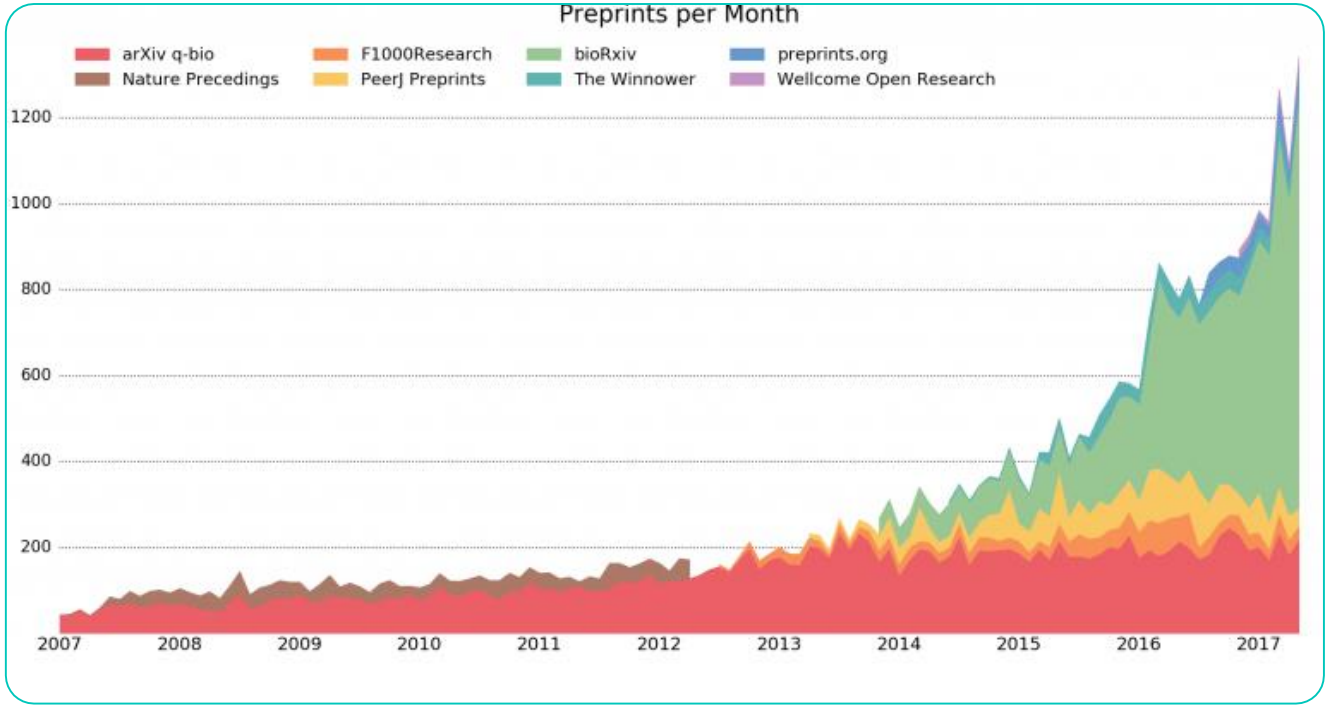


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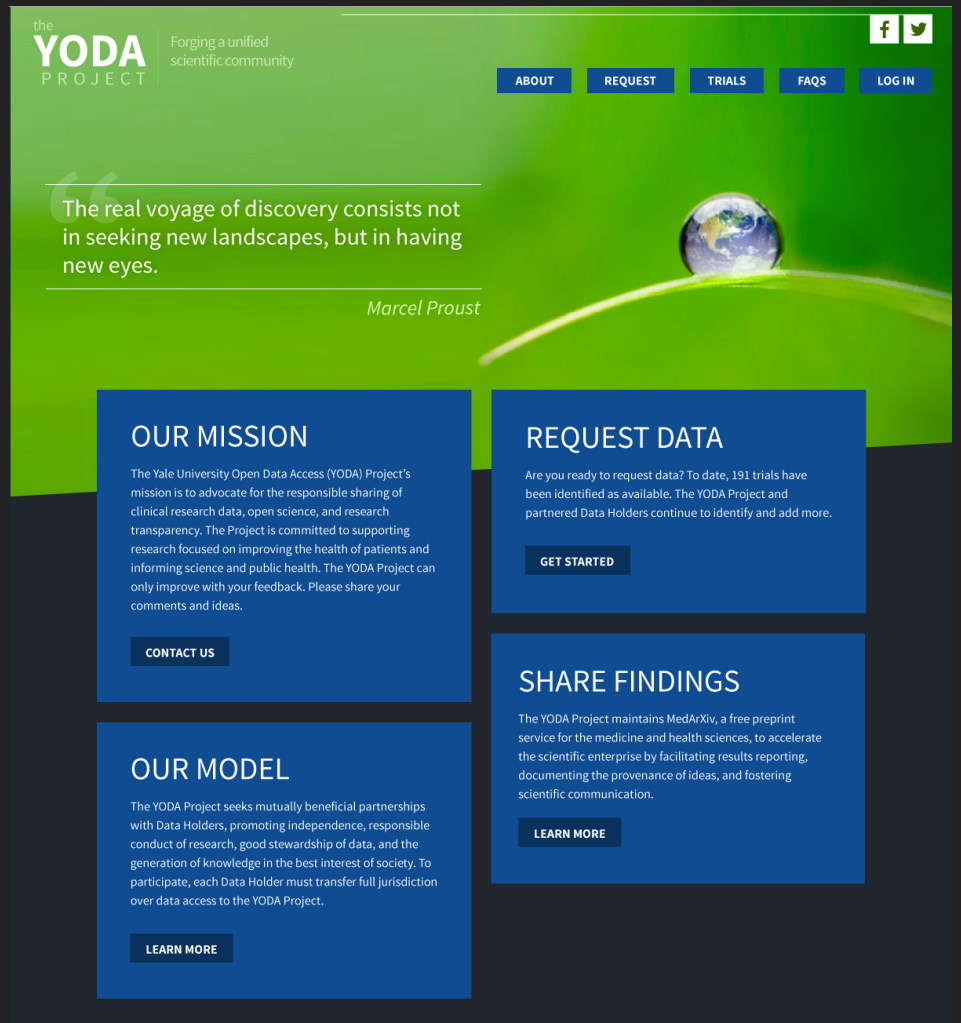


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# When is the right time?

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- Community resource
- Stewards not owners
- Iterative learning

# Goal

- Not to establish a server
- But to improve and accelerate science, promote collaboration, enhance transparency, reduce waste
- Improve over time

# Ask…

- Journals should allow co-existence of pre-print servers and not penalize scientists who use them.
- Is there really a difference from presenting at a meeting?

# Tell us what you think…

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