

Scientific publishing for journalists resource

Developed by PLOS

Document Overview

This resource, developed by the PLOS Media Relations team, provides details for journalists and those in the media provides information about the scientific publishing process and landscape. Full contents can be found in the table below.

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Publishing process at a glance



The process of peer review ensures that manuscripts adhere to scientific rigor and ensure a good fit with the journal in which they aim to publish. It usually involves at least an editor with subject area expertise, and potentially an additional editor and two to three reviewers. To avoid a conflict of interest, none of the members of the peer review team should be involved in the research they are reviewing.

Ahead of publication, articles may be uploaded to a preprint server such as [medRxiv](#), [bioRxiv](#) and [arXiv](#). Preprint articles have not undergone peer review and, as such, should be read with discretion.

Embargoes

What is an Embargo?

An embargo is a “trust pact” between a news source (such as PLOS) and a journalist that no info about the source material will be published prior to the agreed-upon date and time.

At many publishers including PLOS, the publication time and date of the source article is also the press embargo lift time and date.

Benefits/disadvantages of the embargo system

Pros	Cons
<ul style="list-style-type: none"> - Journalists have the opportunity to research and prepare stories ahead of publication, likely making coverage more accurate. - Researchers and their institutions have time to plan and prepare press materials ahead of publication. - The embargo creates an equal playing field for journalists, without “special treatment”. 	<ul style="list-style-type: none"> - Embargo timings may differ from journal to journal, making it confusing for journalists to know when to publish their coverage. - A given embargo time may work better for journalists in some time zones more than others. - There is a risk of reactive journalism, since embargoed press releases are easy for journalists to find, rather than proactive

Pros	Cons
<ul style="list-style-type: none"> - When a journal's papers publish at a consistent day and time each week, journalists can plan better. - News coverage is focused on a particular point in time, creating "a splash" for authors. 	<p>journalism, where each journalist looks for their own stories or digs deeper into a paper beyond the contents of the press release.</p>

PLOS' embargo system

Our embargo policy provides fair and equal opportunity for journalists to research stories and to speak with experts, for researchers to provide comments and for press officers to coordinate coverage with scientists at their institutions.

Our embargoes enable authors to achieve accurate, high-quality media coverage which disseminates their peer-reviewed research to non-expert readers. They ensure that peer-reviewed published articles are accessible to everyone when first reported in the media.

Stories or reports on accepted PLOS articles may not be published, broadcast, posted online or on social media or placed in the public domain before the embargo date and time. Precise embargo dates and times will be clearly marked on all embargoed materials. PLOS articles are embargoed until **11:00 a.m. Pacific Standard Time, 2:00 p.m. Eastern Standard Time** on the date of publication. Individuals who break the embargo policy will be removed from PLOS' press list for a period to be determined by PLOS.

Embargoed materials are for background research only. Journalists may share embargoed materials only with experts in the field to seek comment, but such materials must be clearly identified as embargoed and must include the embargo date and time. Journalists are responsible for taking all necessary steps to ensure that third parties honor the embargo.

Press officers may not distribute embargoed materials in the public domain before the embargo date. However, embargoed materials may be distributed to the media by press officers up to seven days before the embargo date. Press releases must be clearly identified as embargoed and must include the embargo date and time. Press officers are responsible for taking all necessary steps to ensure that third parties honor the embargo.

PLOS has a range of press lists, including lists tailored to specific subject and geographic areas. PLOS will provide advance notice of press-released articles to members of its press list up to seven days ahead of publication.

Important

Sign up to receive our embargoed press releases [here](#).

Scientific article types

Research articles

Research Articles present the results of original research that address a clearly defined research question and contribute to the body of academic knowledge. These articles are peer-reviewed and usually follow the structure of introduction, methods, results, discussion, etc.

Meta-analysis

Results from previously published studies are gathered and a new statistical analysis is carried out.

Systematic review

Similarly to a meta-analysis, results from previously published are gathered, however based on parameters set before the study begins.

Experimental study

One or more variables are manipulated to see how that impacts research subjects. There may be a control group in which no variables are manipulated.

Observational study

Unlike an experimental study, a variable is not manipulated, however the authors measure how one variable correlates with another. There is no causation for observational studies.

Case study

One patient or an individual case is the subject of observations in this type of report.

Clinical Trials

Clinical Trials report the results of studies in which participants are prospectively assigned to a health-related intervention in order to evaluate the effects on health outcomes. A **Randomized Controlled Trial (RCT)** is a type of Clinical Trial where the test subjects are put in different, randomized groups with one variable changed and at least one group as a control with no changes.

Registered Reports

Registered Reports are research articles that undergo peer review at the study design or protocol stage, prior to conducting experiments, data collection or analysis. The Registered Report format aims to

support a strong methodological approach, increase the reproducibility of results, and address publication bias.

Front matter or magazine articles

Front matter or magazine articles offer an analysis of already existing research. These articles are not necessarily peer-reviewed and are usually commissioned by an editor at the journal.

Reviews

- peer-reviewed
- cover rapidly advancing or topical areas in research of broad interest to the entire research community
- generally briefly detail any existing literature on a particular topic and speculate on future directions of this course of study

Opinions

- place for the expression of views on topical, emerging or controversial issues ranging from experimental science to those involving science and public-health policy, education and training
- also a forum in which colleagues can respond, with room for speculation, to previously stated opinions or observations

Editorials

- written or commissioned by the journal's editors
- can cover announcements, highlights of journal content, position statements, and journal updates
- may also highlight developments in the field relevant to the readership

Perspectives

- often commissioned by the journal's editors
- allow expert(s) the opportunity to discuss implications of a study, usually one published in the journal

Related resources

How to read a scientific paper

[This resource](#) from [The Open Notebook](#), a training hub for scientific journalists, details tips and tricks for reading research articles.

Where to find your stories

- PLOS press list (sign up [here](#))
- research and news distribution platforms such as [EurekAlert!](#) in the US & [Alpha Galileo](#) in Europe
- [PR Newswire](#) and other wire services
- regional press associations & [Associated Press](#)
- network-building with folks in press offices at institutions, including [the PLOS press team](#)
- relationship-building with prominent authors

Science media centres

There is a [global network](#) of Science Media Centres whose mission is “helping ensure the public have access to the best scientific evidence and expertise in the news media when science hits the headlines”. These SMCs work with scientists and their institutions as well as journalists internationally.

We are grateful to the Science Media Centres who provided guidance in building this guide, specifically [AfriSMC](#), [SMC Germany](#), [SMC Spain](#) and [SMC Taiwan](#).