ASAPbio

Insights into the Economy of Open Scholarship:

A look into ASAPbio with Jessica Polka, Executive director

Knowledge Exchange

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About ASAPbio

Accelerating Science and Publication in Biology (ASAPbio) is a scientist-driven initiative to promote innovation and transparency in life sciences communication. ASAPbio is a nonprofit incorporated in the state of California. It receives grant funding and also has a member advisory board consisting of six funders who financially contribute to the activities of the organisation.

asapbio.org

ASAPbio: Business model

Key activities

- Advocacy about preprint sharing
- Advocacy about open peer review
- Research and monitoring of research funder policies on preprints

Organisation type

- Non-profit
- Staff: 2.25 FTE

Key partners

- OpenUP project, TRANsparency in Scholarly Publishing for Open Scholarship Evolution (TRANSPOSE)
- Public Library of Science (PLOS)
- Advisory board funders
- Creative Commons

Revenue streams

- Advisory board of six funders
- Grant funding

IP/Copyright

- Advocacy for CC licences on preprints
- Own outputs: CC BY

Customers/users

- Funders
- Researchers

Partially based on the Business Model Canvas
designed by: **Strategyzer AG (strategyzer.com)** (available under CC BY-SA 3.0)

An interview with Jessica Polka

ASAPbio started as group of four biologists (Jessica Polka, Daniel Colon-Ramos and Harold Varmus, led by Ron Vale) at University of California, San Francisco (UCSF) (ucsf.edu). They came together as members of various life science research groups, with the mission of establishing better and more sustainable research practices in the life sciences.

"Despite all the advantages of the digital tools available today, the speed of the actual communication has not increased and, as a result, science overall suffers," says **Jessica Polka**, executive director at ASAPbio. "Ron Vale had already written **an article (pnas.org/content/112/44/13439)** about this in 2015, which showed that students at UCSF needed more and more time to complete their degrees, because the time and work needed to put together a paper (as first author) and get it published – a necessity to advance an academic career – has increased so much over the years. In this paper, Ron presented the publishing of preprints as a possible solution."

At that time, two popular preprint servers had emerged: **bioRxiv (biorxiv.org)** and **PeerJ Preprints (peerj.com/preprints)**. At first, the uptake was relatively low, but the group saw the opportunity and they organised a meeting at the beginning of 2016 to try to understand whether preprints could play a bigger role in the life sciences.

Over 70 scientists, publishers, funders, and other stakeholders gathered to talk about the potential benefits preprints could have in accelerating the speed and efficiency of scientific communications. In part because this workshop was so successful, they managed to get grants from four different funders to push the work forward as ASAPbio. ASAPbio is entirely grant based and does not supply any direct services. Polka says that they don't intend to change this, though they would like to diversify their sources of support, for example, through participating in research projects.

ASAPbio started to monitor changes in the environment, such as the potential effect of funder policies that encourage and validate the usage of preprints. Perhaps the most important aspect is the inclusion of preprints in more formal infrastructures, for example, including preprints in **Crossref (crossref.org)** so that digital object identifiers (DOIs) can be issued for them.

ASAPbio's preprint work is supported by funders. Six of them form an advisory board and support the work through contributions. "Preprint publishing has so many benefits for the authors, it removes barriers to openness, such as journal embargoes. Acknowledging that it is a form of work that should be recognised by funders as a proof of activity is an essential part of our activities," says Polka.

"It has been very exciting to see that the involvement of funders in encouraging positive preprint policies is increasing. Allowing them to be citable on grant requests, for example, can be really crucial. The **National Institutes for Health (NIH) (nih.gov)**, one of the biggest funders for life sciences in the US, allowed this, and it has had an enormous effect on legitimising preprints."

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Although the idea of treating preprints as a method of science communication in its own right has gained a lot of traction over the last year, especially in the life sciences, not everybody is convinced of its merit. Polka: "The biggest hurdle to accepting preprints as a recognised form of research output is that the fear of scooping is very present."

"There are other arguments against the practice, but I feel that we can more easily counter those. For example, there is the argument that it could lead to quality decline. This is, in my opinion, a false argument because we as researchers are already constantly sharing our unpublished work in conferences and meetings, posters, and talks. This is not necessarily peer reviewed work. There is also a fear that people will share low quality information once they are able to share preprints, but I think people will always be worried about their reputation and they will not be inclined to share low quality work. The issue of scooping is a bigger one, however. If not everyone respects preprints as a legitimate form of scientific communication, a competitor might see it as an opportunity to scoop research. That's why I think the concept of being able to cite them properly is so important. In a way they should be treated just like regular journal articles, provided that it's clearly indicated that they're preprints."

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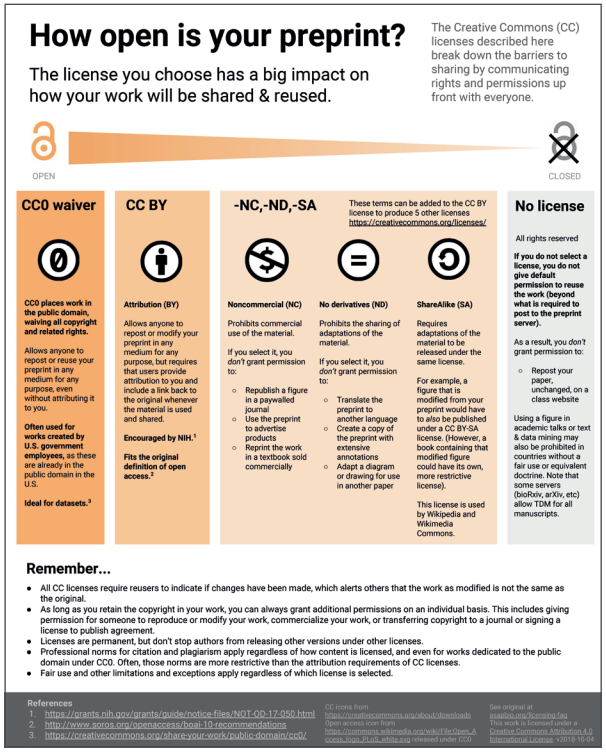
A much debated topic is the copyright status of preprints. In a recent collaboration with **Creative Commons (creativecommons.org)** and **PLOS (journals.plos.org)**, ASAPbio has created some **resources (asapbio.org/new-licensing-resources)** that deal with preprint licensing in detail. These include an FAQ aimed at researchers, answering questions such as 'does the act of posting a preprint transfer copyright or sign transfer rights away to the preprint server provider?' and 'why should authors consider applying an open licence to their preprints?'



How open is your preprint? Resource created by ASAPbio
asapbio.org/new-licensing-resources

Creative Commons and PLOS
asapbio.org/new-licensing-resources

Another resource created together with Creative Commons and PLOS was a one-page infographic called 'How open is your preprint?', intended to encourage authors to apply the most open licence possible to their preprint.

Polka: "I don't know of any preprint server that requires authors to transfer their copyright to post. They have to provide at least a basic licence that allows the server to publish the paper, but they can also use a more liberal Creative Commons licence to allow more forms of reuse. Unfortunately, researchers are not always aware of the different licensing options and there's also a lot of uncertainty about how the final journal version will interact with the preprint. In practice, however, I only know of one publisher that has a policy disallowing CC licences on preprints. In general, when the author retains their rights, they are free to relicence and renegotiate. Publishing a preprint doesn't necessarily have to undermine the relationship with the eventual publisher."

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Polka: "I'm personally in favour of using very liberal open licences for preprints and papers. They should not only be free to read, but the user should also be allowed to do other things with the content. Everything on our own website is Creative Commons Attribution (CC BY). But I do use proprietary software and social media myself, so I am making a lot of compromises against these principles myself. For instance, I use Zenodo, but I create my slides with Google, so I might have a double standard in my daily life."

"Working fully 'in the open' is often more complicated than it seems, but I hope that the choices we make as ASAPbio reflect the idea that scientific information should be as open as possible. I believe that, regardless of the licence you choose, knowing the exact ramifications of applying that licence is essential."

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ASAPbio is not only focusing on preprints. They received a one million USD grant from the **Helmsley Charitable Trust (helmsleytrust.org)** in 2017 to form a **PubMed Central-style (ncbi.nlm.nih.gov/pmc)** central archive for preprints. However, this project was cancelled after some major changes in the preprint landscape meant that many of the goals of the project would be met elsewhere. Instead, the Helmsley Trust has allowed ASAPbio to use this grant for advancing transparency in peer review. Polka: "Earlier this year [in 2018] we published an **open letter (asapbio.org/letter)**, now signed by hundreds of journals, that signals their commitment to publish the contents of peer review. All signees agree that publishing peer review reports (the contents of peer review, whether anonymised or not), would benefit the research community by increasing the transparency of the assessment process."

ASAPbio is also working on a collaborative project, **TRANSPOSE (transpose-publishing.github.io)**, which aims to track the development of journal policies around publishing peer review.

Polka: "I don't think that publishing the content of peer reviews will overhaul entire research workflows: Bringing them into the open, however, is a significant departure from established research practice. But on a practical level, I think recognition of preprints as a fully-fledged scientific communication channel will have the bigger impact."

ASAPbio has a group of around 100 researchers as ambassadors, who not only share their ideas on preprints and open peer review, but also provide input and feedback to the organisation from their respective peer groups. It is a very bottom-up, community-oriented approach but that doesn't mean Polka doesn't see any room for commercial activities, in terms of providing services related to preprint publishing and open peer review: "I get worried when knowledge and information are treated as commodities, as proprietary items. If commercial entities are providing this kind of service, the challenge might be when the data is not released publicly – this is inhibiting our ability to assess research."

> I don't think the legal status of an entity necessarily reflects their commitment to an open infrastructure. Some of the most powerful opponents of open access have been non-profits.

"This happens when publishers are locking away abstracts or citations. So, on a fundamental level, these infrastructures should be publicly or community owned. But I don't think the legal status of an entity necessarily reflects their commitment to an open infrastructure. Some of the most powerful opponents of open access have been non-profits. I think the entirely scholarly communication ecosystem is not functioning as a marketplace. The desire to publish in a prestigious place connected to career advancement prevents people from choosing the one that's most suitable, and thus the most efficient way for them to publish their work."

References and relevant links

- ASAPbio website: **asapbio.org**
- Resources about preprint licensing, created together with Creative Commons and PLOS: **asapbio.org/new-licensing-resources**
- Accelerating scientific publication in biology by Ronald D. Vale, Proceedings of the National Academy of Sciences Nov 2015, 112 (44) 13439-13446; **doi.org/10.1073/pnas.1511912112**
- Open letter about publishing reviews: **asapbio.org/letter**
- PubMed Central: **ncbi.nlm.nih.gov/pmc**
- TRANSPOSE project: **transpose-publishing.github.io**
- ASAPbio start meeting: **asapbio.org/meeting-information**
- The National Institutes for Health: **nih.gov**
- Creative Commons licence suite: **creativecommons.org**
- PLOS : **journals.plos.org**
- Crossref: **crossref.org**
- UCSF: **ucsf.edu**
- BioRxiv: **biorxiv.org**

About Jessica Polka

Jessica Polka is the executive director of ASAPbio. Prior to this position, she was a postdoctoral research fellow in the department of systems biology at Harvard Medical School, mentored by Pamela Silver and co-mentored by Timothy Mitchison.

Polka received her BSc in Biology from the University of North Carolina at Chapel Hill (UNC-CH) and her PhD in Biochemistry from UCSF.

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