

Chemists to get their own preprint server

World's largest scientific society plans to introduce ChemRxiv for a traditionally reluctant discipline.

Daniel Cressey

11 August 2016

Chemists could soon be getting their own dedicated preprint server: the ChemRxiv.

The American Chemical Society (ACS), the world's largest scientific society, [announced on 10 August](#) that it wants to establish the site to help chemists to share early results and data with colleagues online, ahead of formal publication.

The repository would follow on the heels of the popular preprint server [arXiv](#), which [turns 25 this year](#) and is used widely by physicists, computer scientists and mathematicians, and the [bioRxiv](#), for biologists, which was [launched 3 years ago](#). The name is catching on in other disciplines, too: 2016 has seen the launch of the [SocArXiv](#) for social sciences and the [engrXiv](#) for engineering, and a [PsyArXiv](#), for psychology, is [rumoured to be on the way](#).

Some chemists have welcomed the announcement. "I'm very, very excited," says Alán Aspuru-Guzik, a quantum chemist at Harvard University in Cambridge, Massachusetts, and an advocate for preprint culture who already posts his work to the chemical-physics section of arXiv. "I think it really hinders the field of chemistry, not having an arXiv culture."

The ACS says that it is inviting other interested parties to participate in shaping its service, ahead of its future launch at an as-yet unspecified date. This could include other publishers and philanthropists, who might be willing to pay some of the venture's costs.

"We've been really impressed over the past couple of years by the number of developments in the preprint server field, most noticeably, the launch and rapid growth of bioRxiv and growing popularity of arXiv on the physics side," says Kevin Davies, vice-president of the ACS Publications Division. "There is a growing need and desire for someone to launch a preprint server for the chemistry field," he says.

Journal block

Chemists have historically been reluctant to share early versions of their manuscripts publicly before peer review. One factor is that some major journals in the discipline frown on publishing work that has already been posted online.

The *Journal of the American Chemical Society* (JACS), the ACS's best-known journal, states, for example, that only "original work that has not been previously published" will be considered, and that when submitting, authors must inform the editor if they have posted results on a preprint server. And the influential journal *Angewandte Chemie*, published by Wiley-VCH, explicitly bars authors from having published any of the "essential findings" of their paper in a preprint.

Davies says that around three-quarters of the ACS's 50 journals have positive attitudes towards preprints. He says that policies are set by the individual chief editors and editorial boards of the society's journals. "There will not be a top-down shift imposed by ACS," he says.

The initiative would be even more valuable if ACS could collaborate with other major chemistry publishers, so as to ensure that all chemistry journals move to accepting papers that have been uploaded to preprint servers, says Lee Cronin, who studies complex chemical systems at the University of Glasgow, UK.

It remains to be seen how quickly a preprint server will catch on in chemistry. But Aspuru-Guzik thinks that once chemists go to ACS meetings and see other chemists posting links to the ChemRxiv, things could quickly change: "It's kind of like catching Pokémon – you see someone catching Pokémon, and the next thing [you're catching Pokémon yourself](#)," he says.