

## Research Sharing Policy

The V Foundation's mission is to fund game-changing research and all-star scientists to accelerate Victory Over Cancer® and save lives. We believe that sharing the outputs of funded research – such as articles, data, protocols, and more – is crucial to empower patients, achieve the broadest participation possible in knowledge creation, facilitate scientific collaboration, and accelerate discovery. To this end, here we outline our expectations for grantees in terms of research output sharing. We are standing by to help grantees in the implementation of research sharing, and encourage you to contact us if you have questions about this policy. These policies apply to all research projects. These policies are not applicable to educational projects (e.g., projects that increase awareness of and enrollment in clinical trials).

### Overview of Recommendation and Requirements (Note: Required elements are triggered by journal publication):

Pre-Print Deposit	Encouraged
Study Pre-Registration	Encouraged
Article Sharing	Required
Data Sharing	Required
Code/Software Sharing	Required
Protocol Sharing	Required
Tangible Materials Sharing	Required
Education Resources Sharing	Required

### Article Sharing

We require electronic copies of research papers, accepted for publication in a peer-reviewed journal and supported in whole or in part by The V Foundation, to be made immediately and freely available upon publication in the journal. Grantees may comply with this policy by making a copy of their Author Accepted Manuscript immediately available via a trusted open repository (e.g., PubMed Central), or by publishing in an online open access journal. All articles must be shared under a suitable open license, preferably the [Creative Commons Attribution \(CC BY\)](#) license, which permits reuse without restriction.

### Routes to Article Sharing

1. **Repository-mediated:** The easiest way to comply with this policy is for V Foundation grantees to deposit a copy of their accepted manuscript in PubMed Central by following [directions online](#). Please note that the V Foundation for Cancer Research is a PMC designated funder through our membership in the Health Research Alliance. For more information on depositing manuscripts to PMC via the [Health Research Alliance \(HRA\) Open](#) service, please see this user guide: [User Guide for Awardees](#).
2. **Journal-mediated:** Authors can comply with this policy by publishing in an open access online journal. The V Foundation shall pay reasonable fees required by a publisher to effect immediate, open access to the accepted article. This includes article processing charges. However, the Foundation shall only pay these fees for articles published in fully open access journals. Authors can also choose a no-cost open access journal. Authors can search the

Directory of Open Access Journals (<https://doaj.org/>) to find journals that do not charge publication fees.

## Retaining Rights to Share Articles

V Foundation-funded authors must retain sufficient rights over their research articles to make a version of the article immediately available under a compliant open license. Unless granted permission to do otherwise, all submissions of original research to peer-reviewed journals must contain the following statement: “This research was funded in whole or in part by The V Foundation [Grant number]. For the purpose of open access, the author has applied a CC-BY public copyright license to any author accepted manuscript version arising from this submission”. Grantees can read more about this approach, called the Rights Retention Strategy, through [cOAlition S](#) or this [primer](#) written by a researcher.

## Pre-Print Sharing

V Foundation grantees are encouraged to share their manuscripts before or alongside the formal peer review process, a practice known as preprinting. Preprints allow for rapid communication of new findings and can benefit the research community and the public by accelerating the pace of discovery. Grantees can deposit their preprints on a publicly accessible preprint server (e.g., bioRxiv or medRxiv), and we recommend sharing them under an open license, such as the Creative Commons Attribution (CC BY) license, to facilitate reuse. The V Foundation recognizes preprints as evidence of productivity for the purposes of grant applications, reviews, and reporting.

## Data Sharing

The V Foundation expects grantees to maximize the availability of research data with as few restrictions as possible. At a minimum, the data underlying research articles should be made publicly available at the time of journal publication. Data should be deposited via a trusted open platform, which could be a general repository (e.g., Figshare, Open Science Framework, Zenodo), a data-only repository (e.g., Dataverse, Dryad), or discipline-specific repository (e.g., The Cancer Imaging Archive, Project Data Sphere). These [guidelines from F1000Research](#) walk researchers through steps and best practices for data sharing, and include a list of recommended data repositories. Grantees can also consult the list of [Open Domain-Specific Data Sharing Repositories](#) maintained by the NIH.

V Foundation grantees should share data according to the [FAIR Principles](#), which outline how to make data Findable, Accessible, Interoperable, and Reusable. In particular, to facilitate reuse, we recommend sharing data under an appropriate open license or public domain dedication, such as [Creative Commons CCo](#). Grantees can find more information [here](#) on why CCo is the recommended legal tool for sharing data.

## Licensing Flexibility and Opt-Out Conditions

While we expect data to be shared as widely as possible and recommend that grantees dedicate shared data to the public domain for ease of reuse (see above), we recognize this may not always be feasible and are committed to working with our grantees on these requirements. Certain applicants may seek exemption from our data sharing policy. These applicants must submit an opt-out request with the application to explain why the data sharing requirement should be waived. Although the applicant may provide other rationale, most opt-out requests fall into one of the following four categories:

1. **Human Subject Grounds:** As the National Science Foundation explains, “[H]uman subject’s protection requires removing identifiers, which may be prohibitively expensive or render the

data meaningless in research that relies heavily on extensive in-depth interviews.” Data sharing may not violate privacy regulations stipulated by HIPAA or fail in any way to safeguard the rights of research participants. It is the responsibility of the applicant to make a case for why the use of the HIPAA Safe Harbor de-identification method would not be feasible for their data.

2. **Superseding Regulations Grounds:** Governing laws or institutional policies may limit the release of certain data.
3. **Intellectual Property (IP) Grounds:** Under some circumstances, researchers with pending patents may need to embargo their data for a period of time as a condition of the patent application process. In these cases, grantees may be able to modify their data sharing plans accordingly, but this should be discussed with program staff.
4. **Financial Grounds:** Data sharing should not cause an undue financial burden for the awardee. It is the responsibility of the applicant to make a case for why the use of currently available no-cost or low-cost data hosting options do not meet their needs.
5. **Other:** We will consider other opt-out requests on a case-by-case basis.

## Code/Software Sharing

The V Foundation expects grantees to maximize the availability of original code and software with as few restrictions as possible. At a minimum, any original code or software that is required to view data or to replicate analyses underlying research articles must be made publicly available at the time of journal publication. Code and software should be shared via a trusted open platform, which could be a general repository (e.g., Figshare, Open Science Framework, Zenodo), a discipline-specific repository, or a code/software repository with version control (e.g., BitBucket, GitHub, GitLab).

To facilitate reuse, all newly developed code or software should be released under a permissive open source license (e.g., Apache v2.0, BSD 2-Clause, BSD 3-Clause, or MIT). The [Open Source Initiative](#) has more information for grantees to learn about open source licenses, standards, and FAQs for code and software sharing.

## Pre-Registration

The V Foundation encourages preregistration for funded clinical trials. Preregistration of study designs and analysis plans can improve the reliability and inferential validity of research. After a project is completed, protocols and preregistration plans can be used, in conjunction with the final study, by researchers seeking to replicate, reproduce, and build upon findings. Grantees should preregister their studies via trusted open platforms, such as the Open Science Framework, or similar public registry (e.g., AsPredicted.org, ClinicalTrials.gov). This [article](#) has a comparison of different preregistration platforms.

The Center for Open Science has [more information](#) for researchers wanting to learn about preregistration. ClinicalTrials.gov, run by the NIH’s National Library of Medicine, has a [step-by-step](#) guide for researchers on how to register clinical trials. We recommend that grantees share their preregistration plans under an open license, such as the Creative Commons Attribution (CC BY) license, to facilitate reuse.

## Protocol Sharing

The V Foundation requires grantees to make the protocols underlying their published articles openly available through either a general repository (e.g., Figshare, Open Science Framework, Zenodo) or protocol sharing service (e.g., protocols.io) at the time of journal publication. This sharing practice allows protocols to become living records of the core experiments underlying research results and make

reproducing experiments easier for both the labs that develop the methods and for others looking to build upon the work. We recommend that grantees share their protocols under an open license, such as the Creative Commons Attribution (CC BY) license, to facilitate reuse.

### **Tangible Materials Sharing**

The V Foundation requires grantees to make newly created tangible materials (e.g. cell lines, plasmids/clones, antibodies, transgenic organisms, and other reagents) underlying their published articles openly available at the time of journal publication. Resources should be deposited in public, widely-used repositories, depending on the type of materials and disciplinary norms. For example, this could include repositories such as Addgene for plasmids/DNA reagents/viruses, or Jackson Labs for model systems lines. Addgene maintains a [list of materials repositories](#) and other resources on tangible materials sharing.

### **Educational Resources Sharing**

We require our grantees to share those educational and pedagogical resources (e.g., class notes, lesson plans, presentations, book chapters, textbooks, etc.) described in published articles via trusted open platforms no later than the date of journal publication. Sharing could be via a general repository (e.g., Figshare, Open Science Framework, Zenodo) or an educational resource repository (e.g., OER Commons, OpenStax). We recommend that grantees share their educational resources under an open license, such as the Creative Commons Attribution (CC BY) license, to facilitate reuse. Publication under CC BY maximizes the public benefit of educational products by allowing others to copy, distribute, and adapt them.