

# BD<sup>2</sup> Open Science Policy

Updated August 2025

The BD<sup>2</sup> Open Science Policy requirements apply to all BD<sup>2</sup>-funded investigators. **Failure to adhere to these requirements may result in delayed funding or inability to receive extended funding.**

## Open Science Policy Requirements

### I. Manuscript Sharing Requirements

“BD<sup>2</sup> manuscripts” refer to all manuscripts generated with BD<sup>2</sup> funds, whether in part or in full, and include those created after the funding period has ended.

BD<sup>2</sup> manuscripts that include primary data must have at least two open-access versions: a preprint and the final publication. These manuscripts must be posted in an open-access preprint repository (e.g., [bioRxiv](#), [medRxiv](#)) no later than the time the article is first submitted to a journal for consideration. BD<sup>2</sup> manuscripts that do not include primary data, such as review articles and commentaries, are not required to be submitted to an open-access preprint repository.

BD<sup>2</sup> manuscript preprints and formal publications must comply with the full BD<sup>2</sup> Open Science Policy (see **Sections I-IV**). To ensure compliance, **manuscripts must be sent to the BD<sup>2</sup> Open Science Committee ([DiscoveryGrants@bipolardiscoveries.org](mailto:DiscoveryGrants@bipolardiscoveries.org)) for a compliance check.** At a minimum, manuscripts must be sent to the Committee (1) upon deposition in a preprint server [if applicable] and (2) at least 30 days prior to *final* submission to a journal for publication to allow for any required corrections before official publication.

Manuscripts generated using shared institutional resources and/or core facilities that receive BD<sup>2</sup> support are not classified as “BD<sup>2</sup> manuscripts” unless the research project itself received direct BD<sup>2</sup> funding. However, appropriate acknowledgment of core facilities' funding sources should follow institutional guidelines.

### II. Open Access Requirement

BD<sup>2</sup> manuscript preprints and formal publications must be made immediately publicly available via a free online access peer-reviewed journal with no embargo period. Authors are encouraged to use the [Sherpa tool](#) to verify a journal's open-access status.

For both preprints and published BD<sup>2</sup> manuscripts, the submitting authors must obtain the appropriate Creative Commons Attribution license [CC BY 4.0 (CC BY) or CC0] to ensure that the work is shareable. The journal in which the manuscript is submitted must allow these licenses.

- CC BY 4.0 is the default license required for all research papers. This license ensures that authors receive attribution for the work but allows work to be freely shared (i.e., redistributed in any medium or format or adapted for future purposes).
- CC0 is applied to authors employed by the government or to other content in the public domain. Under this license, no attribution is required.



- *BD<sup>2</sup> does not allow CC-BY-ND or CC BY-NC-ND as licensing options for BD<sup>2</sup> manuscripts with primary data. These licenses are not open-access licenses, as they do not permit adapting, transforming, translating, or updating the work. For more information on why non-commercial licensing is not allowed, please read the rationale from [cOAlition S](#) under the header “Licenses”.*

**To ensure appropriate licensing, the authors must:**

- Specify that the manuscript carries a CC BY 4.0 or CC0 public copyright license in the acknowledgment section of both the preprint and formal publication versions of a BD<sup>2</sup> manuscript (See **Section IV**).
- Determine whether the journal will include the CC BY 4.0 or CC0 license in the published version of record (VoR). Journals typically list the license terms of an article under a rights and permissions or copyright tab. If the submitter cannot find this information, they can also send an email to the publisher.
  - If the preprint server or journal has the appropriate licensing, and the article is being published in an open-access journal, no further action is necessary. The journal will submit the article to PubMed Central (PMC) or Europe PMC upon publication.
  - If the preprint server or journal does not have the appropriate licensing and/or is subscription-only, the submitting authors must select a different preprint or publication venue, such as an institutional repository.

If all BD<sup>2</sup> Open Science Requirements are met, BD<sup>2</sup> will pay for any *additional* article-processing charges associated with making a BD<sup>2</sup>-supported publication open access.

### III. Resource Sharing Requirement

All research outputs (e.g., datasets, code, protocols, and research tools such as antibodies, viruses, biospecimens, animal lines, cell lines, reagents, equipment, etc.) used under or developed with BD<sup>2</sup> funding must be shared in an open-access repository as soon as possible and no later than the time of output publication. *Of note, most repositories can incorporate an embargo period that restricts full posting of resources until manuscript publication. When submitting preprints and final manuscripts to the BD<sup>2</sup> Open Science Committee, provide a “reviewer link” from the repository.*

- Non-human datasets must be shared to a public data repository that is recommended by the appropriate field for the associated data modality (e.g., [DANDI Archive](#) for neurophysiology data and [Brain Image Library](#) for microscopy images). These repositories must:
  1. Enable immediate open access to data upon full publication of the manuscript,
  2. Allow reuse with licensing (no more restrictive than CC-BY 4.0),
  3. Assign a unique and persistent identifier to the dataset, such as a digital object identifier (DOI) or accession number that allows linking and citing,
  4. Include metadata necessary to understand, assess, and replicate the reported study findings, and
  5. Provide long-term preservation and storage of data that meets the ISO’s trustworthy digital repository standards.



- Human-derived datasets, including iPSCs and organoids, must be de-identified (such that they retain no direct or indirect identifiers and no PHI) and shared with a public data repository in a manner that is as open as possible but as closed as necessary.
  - These datasets must be made accessible unless they:
    - Could reasonably compromise the privacy of human participants,
    - Could impede the objectives of a study,
    - Could compromise the privacy or confidentiality of researchers or collaborators.
  - Published datasets consisting of Integrated Network data will be de-identified and made publicly available via the Integrated Network's Pilot platform by formal request to BD<sup>2</sup>.
- Code-based outputs (such as software, algorithms, and scripts) must be made available through public repositories and assigned a DOI. [Zenodo](#) can also be used to assign a DOI, including for GitHub links that are not associated with a permanent identifier. Note that any amount of code written to clean, analyze, or visualize data must be made publicly available. Include annotations and user notes as needed to allow for re-use.
  - Code that is developed collaboratively within the Integrated Network or used to analyze Integrated Network data must be reviewed centrally by the IN team ([IntegratedNetwork@bipolardiscoveries.org](mailto:IntegratedNetwork@bipolardiscoveries.org)) prior to posting.
- Protocols and Standard Operating Procedures (SOPs) must be made publicly available and updated through a protocol sharing service such as [protocols.io](#) or [bio-protocol](#).
  - Protocols or SOPs that are collaboratively developed or used across multiple BD<sup>2</sup> projects must be reviewed by the BD<sup>2</sup> team ([IntegratedNetwork@bipolardiscoveries.org](mailto:IntegratedNetwork@bipolardiscoveries.org) or [DiscoveryGrants@bipolardiscoveries.org](mailto:DiscoveryGrants@bipolardiscoveries.org)) prior to posting.
  - Protocols or SOPs that will be referenced across multiple publications must only be published once. This "parent" protocol or SOP must be versioned or forked as changes are made.
  - Public protocols or SOPs must not include information about the Integrated Network Study design that may compromise the privacy of Integrated Network Study participants or impede the Integrated Network Study's objectives.

All research inputs (previously published datasets, code, and protocols as well as existing research tools such as antibodies, biospecimens, and cell lines) and research outputs used under or developed with BD<sup>2</sup> funding must be clearly identified and cited using persistent identifiers, such as DOIs and Research Resource Identifiers (RRIDs); supplier catalog numbers and URLs are not considered persistent identifiers. If a research tool does not fall under the RRID system, BD<sup>2</sup> recommends using an available persistent identifier, such as Chemical Abstracts Service (CAS) numbers. Researchers must register new resources (research outputs) with appropriate registries to obtain RRIDs and DOIs where applicable. BD<sup>2</sup> recommends using the [Resource Identification Portal](#) for locating identifiers for research inputs cited in publications and generating a [Key Resources Table](#) to organize the resource list.

The Virtual Grantee Platform funded by BD<sup>2</sup>, the BD<sup>2</sup> Hub (Notion), will be used as a Research Outputs Management System (ROMS) to track and develop a catalog of research outputs to enhance access to these resources within the BD<sup>2</sup> network.



- All research outputs across all programs, including datasets, code, protocols, and resources, must be logged on the ROMS. Logging an output consists of sharing a link to the resource and annotating the entry with appropriate metadata.
- For resources that have been referenced in publications, a permanent identifier must be shared, such as a DOI or RRID.
- In the absence of a permanent identifier, such as in the case of sharing prior to publication or data that requires an access request, either a weblink to the resource or a file can be shared.

#### IV. Acknowledgement Requirement

All publications and outputs resulting from partial or full support by BD<sup>2</sup> — either during the award or after the funding period has ended — must be credited with reference to a named affiliation to appear in the Author Information section for a funded investigator. This affiliation should be used for any current or former member of a BD<sup>2</sup> team who is an author on a BD<sup>2</sup>-supported publication. The following language must be included in the acknowledgments section of the publication or other research output, such as a dataset, software, resource, or protocol. If there is no specified place for acknowledgments, use the notes or detail area of the record.

*This research was funded in whole or in part by Breakthrough Discoveries for thriving with Bipolar Disorder (<https://ror.org/00z5dw933>) [Grant ID:XXXXX]. For the purpose of open access, the author has applied a CC BY [replace with CC0 if appropriate] public copyright license to all Author Accepted Manuscripts arising from this submission.*

The grant must also be acknowledged in research outputs, such as datasets, software, resources, or protocols, as follows:

- For outputs published on platforms that include an annotation field for the funder, such as protocols.io and Zenodo, BD<sup>2</sup> is to be included as a listed funder of the output.
- For other platforms that do not have a designated field to list funders, the language above (“This research was funded in whole or in part...” ) must be included in the acknowledgments. If there is no specified place for Acknowledgements, the notes or detail area of the record can be used.

To ensure that the public can identify BD<sup>2</sup>-funded investigators, BD<sup>2</sup> should be included in author affiliations or acknowledgements, as appropriate. In addition to an investigator’s home institution, a BD<sup>2</sup>-specific affiliation should be designated as such:

*Breakthrough Discoveries for thriving with Bipolar Disorder  
730 15th St. NW Washington, DC 20005*

This affiliation should be used for any current or former member of a BD<sup>2</sup>-funded team who is an author on a BD<sup>2</sup> manuscript. Team members include anyone who is or has previously been an active participant in research efforts associated with the team’s BD<sup>2</sup> project or efforts at an Integrated Network site.

All BD<sup>2</sup>-affiliated authors must also include their Open Researcher and Contributor Identifier (ORCID).

#### V. Additional Endorsements

There are several organizations, guidelines, and efforts to improve open access among the research community. BD<sup>2</sup> endorses the following organizations and efforts:



- cOAlition S - This coalition of organizations endorses Plan S, an initiative that promotes open access publication of research funded by public grants.
  - FAIR Principles - These guidelines promote research data to be findable, accessible, interoperable, and reusable.
  - Panton Principles - These principles promote open access to research data to allow for the analysis, processing, and sharing without financial, legal, and technical barriers.
  - SfDORA—The Declaration on Research Assessment promotes eliminating journal-based metrics, assessing merit-based research rather than journal reputation, and improving publication requirements to improve research.
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***BD<sup>2</sup> reserves the right to alter and update these policies at any time.***

