Resource Sharing Example:

Data Sharing: In previous projects, we performed gene expression analysis of treated and untreated cell lines. We uploaded our data to NCBI's GEO repository at the time the data were collected, and we made these data openly available with the publication of our manuscript [1]. In GEO these have been assigned the identifiers GSE1245, GSE1246, and GSE1247. We annotated these data with treatment date, processing batch, cell line, and treatment type. These data were downloaded and reanalyzed by Doe et al. [2] and Smith et al. [3] to identify additional targets. These data were integrated into a larger analysis of multiple datasets by Patel et al. [4]. In this project we will perform RNA-seq analysis of XYZ cell lines. We will upload sequencing data to SRA and link the raw data to summary information in NCBI's GEO repository. We will annotate experimental metadata using terms from the Experiment Factor Ontology (EFO) where relevant terms are available. We will make these data publicly available to the community at the time of publication.

Rubric for Reviewers:

Please use the full range of scores (1-9) for this criterion. We expect that very few applications will receive a perfect score in this area.

General Track Record:
- Do the applicants have a track record of sharing resources that are remarkable for their richness, granularity, or quality such that those resources are particularly inviting to people who wish to use them.
- Do the applicants have a track record of sharing resources in a manner that is as easy as possible for people to re-use within ethical and legal constraints.
- Have the applicants shared resources that have *already been reused* by other investigators to answer a new question?
- Early Career Grants: Young Investigator, 'A' or Psychosocial Launch. Applicants are encouraged to describe past experience; however, it is understood they may not have a track record. The reviewer should focus on the Sharing Plan.

General Resource Sharing Plan:
- Do the authors use an established repository for the resource? (See AHA guidelines on repositories for questions https://goo.gl/2UCZ43). A lab website is not acceptable.)
- Is the resource distributed in a way that maximally facilitates reuse?
- Will the resource as described have sufficient metadata available to promote reuse?
- For resources that must be maintained, is there a plan in place to maintain the resource?

Data Sharing:
- Public, widely-used repositories should be used if possible (e.g., GEO or ArrayExpress for gene expression data, SRA for RNA-Seq data, etc.).
- If no public, widely-used repository is available for the data type in question, a general purpose archival repository (e.g., FigShare, Zenodo) should be used.
- For more detailed discussion, the guidelines provided by F1000 research for authors are an excellent resource: https://f1000research.com/for-authors/data-guidelines
- If authors or reviewers have questions, please feel free to contact the Childhood Cancer Data Lab (ccdl@alexslemonade.org) which is happy to seek available options.

Materials and Reagents:
- Public, widely-used repositories (Addgene, cell banks, etc.) should be used if possible.
- On request should be avoided if possible. If distribution will occur upon request, specify the expected response time for the resource, how the response time will be measured, how it will be discussed in progress reports, and how sharing will happen after the grant.
- If the lab will be maintaining the material or reagent, methods that can be used to authenticate the reagent should be specified. When the authentication will occur and who is responsible (distributor, recipient) should also be specified.

Protocols:
- How protocols will be distributed should be specified.
- How protocols will be maintained and clarified should be specified.
- If there exists an appropriate service (e.g., protocols.io) it should be used. Lab websites should generally not be used to distribute protocols.

Source Code:
- Source code should be stored in a version control system and made available through a version control service (e.g., GitHub, Bitbucket, or similar).
- Source code should be archived to an archival service (e.g., Zenodo) at the time of submission and the conclusion of the grant.
- A license should be specified.