

caNanoLab and Data Sharing

The cancer Nanotechnology Laboratory (caNanoLab) data portal (<https://cananolab.cancer.gov>) is an NIH-supported, publicly-accessible repository designed to enable sharing of nanomaterials data, and to expedite and validate the use of nanoparticles in biomedicine. caNanoLab provides support for the submission, retrieval, and sharing of cancer-relevant nanomaterials with characterizations resulting from physico-chemical, *in vitro*, and *in vivo* assays, and associated characterization protocols and publications. Nanomaterial characterization information includes metadata for each characterization assay, as well as metadata describing the experimental conditions that influence these characterizations.

Based on the Data Sharing Policy of the [funding agency(ies)], [the applicant] plans to submit at the earliest time possible, or at least upon publication, all relevant data derived from activities supported by [funding agency(ies)] to caNanoLab. Data to be submitted includes:

- Composition and characterization information supported by caNanoLab.
- Analyzed data and the associated numerical data, metadata, experimental parameters and factors.
- Available protocols associated with characterizations.

If these data have been published, submit the associated publication information to caNanoLab. (According to the Terms and Conditions of this award, at least one person is designated by [the applicants] to serve as the data sharing coordinator responsible for ensuring data submission.)

- [The applicants] directly submit data to caNanoLab via web-based forms using instructions, a standardized data submission workflow, and available standardized metadata provided by caNanoLab.
- Submitted data is reviewed by the curator for accuracy and completeness and made visible to the public unless specified by [the applicants].
- For these datasets, the curator creates downloadable ISA-TAB-Nano documents, a standardized format that enables data exchange with other data systems.

By utilizing caNanoLab, [the applicants] enable the archiving and dissemination of these data to the broader research community. Researchers will have access to these data by performing web form-based queries on the caNanoLab website and will be able to download reports in a spreadsheet-based format for re-use and additional analyses.