

# caNanoLab FAQ

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For help accessing PDF, audio, video, and compressed files on this wiki, go to [Help Downloading Files](#).

## caNanoLab General

### What is caNanoLab?

Welcome to the cancer Nanotechnology Laboratory (<https://cananolab.cancer.gov>). caNanoLab is a data sharing portal that supports the international biomedical nanotechnology research community to expedite and validate the use of nanotechnology in biomedicine. caNanoLab provides support to annotate nanomaterials with characterizations resulting from physico-chemical, *in vitro*, and *in vivo* assays and share characterizations and associated nanotechnology protocols in a secure environment.

Additional information on caNanoLab is available on the [caNanoLab Wiki Home page](#).

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### How do I register for a caNanoLab login account?

If you do not have a caNanoLab login account and want to save items in caNanoLab, you must register for an account first. Contact [caNanoLab-Support@ISB-CGC.org](mailto:caNanoLab-Support@ISB-CGC.org). You will be assigned a [user role](#) which affects what actions you can perform in caNanoLab.

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### How do I reset my password if I have forgotten it?

If you forget your password or need to reset your caNanoLab password, contact [caNanoLab-Support@ISB-CGC.org](mailto:caNanoLab-Support@ISB-CGC.org).

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### How do I obtain a caNanoLab user account to login?

To request a caNanoLab user account to login, contact [caNanoLab-Support@ISB-CGC.org](mailto:caNanoLab-Support@ISB-CGC.org).

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### Who developed caNanoLab?

caNanoLab was developed as a collaboration between the NCI CSSI [Office of Cancer Nanotechnology Research](#) and the [NCI Center for Biomedical Informatics and Information Technology \(CBIT\)](#).

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### Does caNanoLab leverage any existing standards for describing nanoparticles and associated characterizations?

Standards supporting nanotechnology in the biomedical domain are emerging and under continuous development. caNanoLab leverages and extends concepts from existing standards developed by the biomedical and nanotechnology community. caNanoLab leverages biomedical and nanotechnology concepts from the [NCI's Enterprise Vocabulary Services \(EVS\)](#) and the [Nanoparticle Ontology \(NPO\)](#) .

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## Where can I find definitions for caNanoLab concepts?

Definitions to caNanoLab concepts are available in the [caNanoLab User's Guide](#), [caNanoLab glossary](#), and the [NCI Thesaurus](#).

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## How do I incorporate caNanoLab into a data sharing plan?

It is the policy of NIH that the results of research accomplished through Federal support should be made available to the public. To meet this requirement, NIH applicants are required to provide a Data Sharing Plan (Resource Sharing Plan), as described in the [NIH Data Sharing Policy](#) and [SF424 \(R&R\) Application Guide](#). If you are applying for nanotechnology-based research funding that requires a data sharing or data management plan, you may find useful information in the document [caNanoLab & Data Sharing](#) that can be used in your research proposal. The suggested text is based on the requirements for NIH Data Sharing Plans, but you can modify this text to fit the needs of your proposed research. For additional information about caNanoLab or to reference caNanoLab, refer to [Gaheen et al., 2013, caNanoLab: data sharing to expedite the use of nanotechnology in biomedicine. \*Comput. Sci. Discov.\* 6 014010 doi:10.1088/1749-4699/6/1/014010.](#)

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## How do I cite caNanoLab?

Authors who use caNanoLab should acknowledge caNanoLab in their work by properly referencing samples. The majority of caNanoLab sample record information is curated from publications. For these, acknowledge the associated publication and caNanoLab either by citation or in the acknowledgements section of your publication.

Alert us by email of any publications that cite or acknowledge the use of caNanoLab to enable us to highlight it on our website. Below are options for including caNanoLab use in publications.

- **Example acknowledgement:** "The results <published or shown> here are in whole or partly based upon data made available through caNanoLab: <https://cananolab.cancer.gov>. For questions, contact the [NCI Center for Biomedical Informatics and Information Technology \(CBIIT\)](#)."
- **General caNanoLab citation:** Cite the caNanoLab publication available at either [Comput Sci Discover](#) or [Beilstein J Nanotechnol](#).
- **Citing published caNanoLab data:** Cite the associated publication when using information from a sample record in caNanoLab. Publication information can be found under the Publication Tab on the left-hand side Navigation Tree for each sample.
- **Citing unpublished caNanoLab data (no associated publication record):** Cite the caNanoLab sample page using the following format –Sample Name, caNanoLab Data Portal, National Cancer Institute, Bethesda, Maryland. World Wide Web (URL: <https://cananolab.cancer.gov>). [Date data retrieved (month, year)].

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## caNanoLab Functionality

### What functionality does caNanoLab Support?

caNanoLab allows researchers to submit and retrieve information on nanoparticles and associated information including:

- The composition of the particle including nanoparticle entities (e.g. dendrimers, carbon nanotubes, quantum dots, etc.), functionalizing entities (therapeutic, targeting, and diagnostics entities), and chemical associations (chemical associations, attachments, or encapsulations between nanoparticle entities or functionalizing entities).
- Physical characterizations performed on a nanoparticle including size, molecular weight, shape, purity, etc.
- *In vitro* characterizations performed on a nanoparticle including cytotoxicity, immunotoxicity, and general toxicity characterization results.
- Protocols for characterizations performed on nanoparticles or general nanotechnology protocols from biomedical nanotechnology studies.
- Publications from biomedical nanotechnology studies.

caNanoLab provides secure access to data and requires authentication and authorization for access to non-public data.

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### How do I save data in caNanoLab?

In order to save a protocol, sample, or publication in caNanoLab, you must have an account belonging to the Data Curator group. To register for a login account, contact [caNanoLab-Support@ISB-CGC.org](mailto:caNanoLab-Support@ISB-CGC.org). Once you have an account, you can log into caNanoLab (<https://cananolab.cancer.gov>) and create an item and assign access to users and collaboration groups. If you are a Data Curator, you can make the item publicly-accessible. If not, you must submit the item for review, and when the Data Curator approves the item, it will be public.

**i Tip**

To assist in this process, a [caNanoLab Data Submission Video](#) and [accompanying transcript](#) are available, as well as the [caNanoLab User's Guide](#).

**caNanoLab data submission workflow**



**caNanoLab composition and characterization concepts**

- Nanomaterial Sample
  - Composition
    - Nanomaterial Entity
    - Functionalizing Entity
    - Chemical Associations
  - Characterization
    - Protocol
    - Physico-Chemical Characterization
    - In Vitro Characterization
    - In Vivo Characterization
  - Publication

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## What types of data can I submit into caNanoLab?

caNanoLab provides support for a variety of different types of data including:

- Nanomaterials and their composition
- Nanomaterial Characterizations from physico-chemical characterizations
- Nanomaterial Characterizations from in vitro characterizations
- Nanotechnology protocols
- Nanotechnology publication

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## Can I associate my publication with caNanoLab data?

caNanoLab supports the submission of publication information and the association of caNanoLab data with publications. To submit publication information, complete the web-based submit publication form. If the publication is available in PubMed, provide the PubMed ID and caNanoLab will auto-populate the publication information. When submitting publication information, select the caNanoLab samples associated with the publication. This will associate the publication with caNanoLab data available for the sample.

In addition to associating samples with publication information stored in the the caNanoLab Data Portal, caNanoLab has established a direct reciprocal link between datasets and associated research articles published by Elsevier. When a user performs an Elsevier search, caNanoLab now returns a caNanoLab logo if the publication has linked samples in the caNanoLab database. If not, caNanoLab sends a transparent one pixel image.

The following is the URL format that searches caNanoLab for a DOI ID.

`https://cananolab.cancer.gov/caNanoLab/views/publicationSampleImage.html?type=DOI&id=ADDID`

For example:

`https://cananolab.cancer.gov/caNanoLab/views/publicationSampleImage.html?type=DOI&id=11.1111/z.zz.9999.99.999`

The current list of Elsevier journals that offer reciprocal linking as well as the future list are available on the [caNanoLab Integration with Elsevier](#) web page.

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## Who can I contact to save data into caNanoLab?

A data curator is available to assist in curating data from nanotechnology characterizations in biomedicine. Data curation activities on caNanoLab are currently performed by nanotechnology data scientists at Washington University and the Nanotechnology Characterization Laboratory (NCL). Data curators assist in extracting data from publications and nanotechnology experiments, annotating extracted data, and providing overall data quality control.

If you are interested in depositing your data into caNanoLab, contact TBD.

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