caNanoLab Wiki Home Page - 2021-06-24

![caNanoLab logo]

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Keeping Up With caNanoLab

For information about this caNanoLab release:

- What's New with caNanoLab
- Access the caNanoLab User Forum to stay connected and provide feedback.
- For technical information, refer to caNanoLab Release Notes.
- Questions? Contact the caNanoLab Program Team, NCIcaNanoLab@mail.nih.gov.

At a Glance Details

- Version Number: (TBD)
- Release Date: (TBD)
- Primary audience: Investigators and researchers interested in information about the characterizations of nanomaterials used in biomedical research.
- (TBD) The new release 3.1 has been moved to deploy on the Google Cloud App Engine Flex system. For now, use the 3.0 release for local installations.
- (TBD) Installation Level (for 3.0): Intermediate - technical assistance may be required, download may require supporting infrastructure or software.
- (TBD) System Requirements (for 3.0): This is a web-based application that can be accessed through an industry standard browser. Installation requires:
    - Memory 1GB or more (Linux, Solaris, or Windows)
    - Disk storage 36 GB (minimum)
    - Database Server: MySQL v 5.5.x
    - JBoss Wildfly, 8
    - Java 1.8

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Tool Overview

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.

caNanoLab provides access to information on:

- Nanotechnology protocols in biomedicine
- Composition of nanomaterials
- Functions of nanomaterials (for example, therapeutic, targeting, diagnostic imaging)
- Physico-chemical characterizations including size, molecular weight, shape, physical state, surface chemistry, purity, solubility, and relaxivity
- In Vitro characterizations such as cytotoxicity, blood contact properties, oxidative stress, and immune cell functions
- Publications and reports from nanotechnology studies in biomedicine
- Synthesis information, including materials, functionalization, and purification

caNanoLab was developed as a collaboration between the NCI Center for Biomedical Informatics and Information Technology (CBIIT), the NCI Nanotechnology Characterization Laboratory (NCL), and the NCI Office of Cancer Nanotechnology Research (OCNR).

Data Curation

Data curation is a key component for ensuring that data is appropriately annotated to facilitate data sharing in a semantically interoperable fashion. Data curation activities on caNanoLab are currently performed by the NCI Alliance for Nanotechnology in Cancer Data Coordinators and the NCI data curator. 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 submitting your data into caNanoLab, contact Application Support.

Detailed data curation steps are explained in the Curation of Biomedical Data into ISA-TAB-Nano and caNanoLab Standard Operating Procedure.

Installation and Downloads

caNanoLab 3.1 Artifacts

- A zip file is not available. Refer to the new code repository at https://github.com/isb-cgc/cananolab .
- caNanoLab 3.1 Release Note

caNanoLab 3.0 Artifacts

- cananolab-cananolab-3.0.0-it10.zip
- caNanoLab 3.0 Release Note

caNanoLab 2.4.1 Artifacts

- cananolab-2.4.1-qa4.zip
- caNanoLab 2.4.1 Release Note

caNanoLab 2.4 Artifacts

- 2.4.0-qa6.zip
- caNanoLab 2.4 Release Note

caNanoLab 2.3.11 Artifacts

- 2.3.11-it19.zip
- caNanoLab 2.3.11 Release Note

Forum and Support

- caNanoLab User Forum - Forum for recommending caNanoLab enhancements
- Application Support: caNanoLab-Support@ISB-CGC.org

Presentations, Demos and Other Materials

The caNanoLab Data Submission Video and accompanying transcript is available to assist people in submitting data in caNanoLab.

Note: Materials for previous caNanoLab releases are available from the caNanoLab Presentations, Demos and Other Materials archive.

Documentation and Training

To access online help in the application, click the **Help** button.

- caNanoLab User's Guide
- caNanoLab FAQ

- [caNanoLab Release Notes](#)
- [caNanoLab Installation Guides](#)
- [caNanoLab and Standards Development](#)
- [caNanoLab Software License](#)

Note: Documents for previous caNanoLab releases are available from the [caNanoLab Presentations, Demos and Other Materials Archive](#) and the [Docs Archive Page - calab](#).

Related Tools and Terminology

- [Nanoparticle Ontology (NPO)](#) ⬚
- [NCI Thesaurus](#)
- [NCI cancer Data Standards Repository (caDSR)](#)

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