

caNanoLab Wiki Home Page

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At a Glance Details

- Version Number and Release Date: caNanoLab 1.5.4 September 2012
- Primary audience: Investigators and researchers interested in information about the characterizations of nanomaterials used in biomedical research
- caBIG® Tool Bundle: None
- Grid Enabled? Yes
- Compatibility Level: Not yet determined
- Installation Level: Intermediate - technical assistance may be required, download may require supporting infrastructure or software
- System Requirements: 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 5.1.x
 - JBoss Application Server, 5.1.0
 - JRE/JDK 1.6.x

Tool Overview

The cancer Nanotechnology Laboratory portal ([caNanoLab](#)) is a web-based portal designed to facilitate data sharing in the biomedical nanotechnology research community to expedite and validate the use of nanotechnology in

biomedicine. caNanoLab provides support for the annotation of nanomaterials with characterizations resulting from physico-chemical and in vitro assays and for the sharing of these characterizations and associated nanotechnology protocols in a secure fashion.

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

caNanoLab is a collaboration between the NCI Center for Biomedical Informatics and Information Technology (CBIIT), the [NCI Nanotechnology Characterization Laboratory \(NCL\)](#), and the [NCI Cancer Centers of Nanotechnology Excellence \(CCNEs\)](#).

Installation and Downloads

Downloads for caNanoLab are available as listed here. The [caNanoLab Software License](#) applies.

caNanoLab 1.5.4 Artifacts

- [caNanoLab 1.5.4.zip](#)
- [caNanoLab 1.5.4 Release Note](#)
- [caNanoLab 1.5.4 Installation Guide.pdf](#)

caNanoLab Archives

Downloadable files from previous releases of caNanoLab are also available from the [caNanoLab GForge files tab](#).

caNanoLab Users Group

- [caNanoLab Users List](#) (Sign up to receive updates about caNanoLab.)
- [Address for mail](#)

Forum and Support

Resources

- [Application Support](#)
- ICR Workspace Coordinator: [Mervi Heiskanen](#)
- [caNanoLab Users Listserv](#) - Sign up for tool updates. Send mail (mailto:(CANANOLAB-USERS-L@LIST.NIH.GOV))
- [caNanoLab GForge Project Site](#)
- [ICR Nanotech Working Group](#)

Presentations, Demos and Other Materials

- [caNanoLab Brochure](#)
- [Brief overview and demonstration](#)
- [caNanoLab Overview](#)

- [caNanoLab Data Submission Video](#)

Documentation and Training

- [caNanoLab FAQ](#)
- [caNanoLab Glossary of Terms](#)
- [caNanoLab Object Model](#)
- [caNanoLab Design Document](#)
- [caNanoLab Release Notes links listed for all releases 1.5.2](#)
- caNanoLab lists of documentation on [GForge files tab](#) and [GForge docs tab](#)
- Online help is available in the application download.

Related Tools and Terminology

- [NCI BiomedGT Nanotechnology Terminology Portal](#)
- [Nanoparticle Ontology \(NPO\)](#) 
- [NCI EVS Thesaurus](#)
- [NCI cancer Data Standards Repository \(caDSR\)](#)

Related Organization

- [NCI Alliance for Nanotechnology in Cancer](#)

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 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 submitting your data into caNanoLab, please contact the [caNanoLab Users Listserv](#).

caNanoLab Architecture

caNanoLab leverages the caCORE SDK and caGrid technologies to develop, deploy, and advertise common services for nanomaterials and characterizations. For information on accessing caNanoLab grid services, please refer to the [caNanoLab Grid Services Web Page](#). caNanoLab grid services are accessed through a variety of caBIG resources such as caB2B, caOBR, the GSS iPhone App, and caGrid Portal.