Resource Summary Report

Generated by dkNET on May 19, 2025

Center for Bio-Image Informatics

RRID:SCR_001949
Type: Tool

Proper Citation

Center for Bio-Image Informatics (RRID:SCR_001949)

Resource Information

URL: http://www.bioimage.ucsb.edu/

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Description: The Center for Bio-Image Informatics is an interdisciplinary research effort between Biology, Computer Science, Statistics, Multimedia and Engineering. The overarching goal of the center is the advancement of human knowledge of the complex biological processes which occur at both cellular and sub-cellular levels. the center employs and develops cutting edge techniques in the fields of imaging, pattern recognition and data mining. Research also focuses on development of new information processing techniques which can afford us a better understanding of biological processes depicted in microscopy images of cells and tissues, specifically on the distributions of biological molecules within these samples. This is achieved by borrowing methods for information processing at the sensor level to enable high speed and super-resolution imaging. By applying pattern recognition and data mining methods to bio-molecular images, full automation of both the extraction of information and the construction of statistically-sound models of the processes depicted in those images was possible. At the heart of the center's reseach is the BISQUE system, an online repository for multidimensional bio-images, and testbed for new research techniques and methods. BISQUE: Online Semantic Query User Environment is an online database for managing up to 5 dimensional scientific images with associated metadata and a flexible, collaborative tagging system. Currently the system has more than 85,000 user-provided tags and 128006 2-D planes from over 6,000 biological images. BISQUE is much more than just a repository for scientific images- the system provides resources for complex scientific analysis over images, result visualization, user-extensible modules, customized organization of images, advanced search features, graphical annotations, textual annotations and compatible client-side applications. Sponsors: This work is supported in part by an NSF infrastructure award No. EIA-0080134 and IIS-0808772.

Synonyms: UCSB BioImage

Resource Type: database, data or information resource, topical portal, portal

Keywords: engineering, biological image, biological molecule, biological process, biology, cell, cellular, computer science, graphical annotation, metadata, microscopy, multimedia, semantic, statistics, sub-cellular, tagging system, textual annotation, tissue

Funding:

Resource Name: Center for Bio-Image Informatics

Resource ID: SCR_001949

Alternate IDs: nif-0000-10523

Record Creation Time: 20220129T080210+0000

Record Last Update: 20250517T055513+0000

Ratings and Alerts

No rating or validation information has been found for Center for Bio-Image Informatics.

No alerts have been found for Center for Bio-Image Informatics.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 4 mentions in open access literature.

Listed below are recent publications. The full list is available at dkNET.

Miller RJ, et al. (2012) Structure-forming corals and sponges and their use as fish habitat in Bering Sea submarine canyons. PloS one, 7(3), e33885.

Dobrowolski R, et al. (2012) Presenilin deficiency or lysosomal inhibition enhances Wnt signaling through relocalization of GSK3 to the late-endosomal compartment. Cell reports, 2(5), 1316.

Gilroy S, et al. (2011) Plant cell biology: with grand challenges come great possibilities. Frontiers in plant science, 2, 3.

Swedlow JR, et al. (2009) Open source bioimage informatics for cell biology. Trends in cell

biology, 19(11), 656.