

Resource Summary Report

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Center for Research in Biological Systems

RRID:SCR_002666

Type: Tool

Proper Citation

Center for Research in Biological Systems (RRID:SCR_002666)

Resource Information

URL: <http://crbs.ucsd.edu/>

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Description: CRBS is a UCSD organized research unit (ORU) that exists to provide human resources, high technology equipment, and administrative services to researchers engaged in fundamental research on cell structure and function relationships in central nervous system processes, cardiovascular networking, and muscular contraction through multiple scales and modalities. CRBS scientists investigate these processes through invention, refinement, and deployment of sophisticated technologies, especially: - High-powered electron microscopes that reveal three-dimensional cell structures - State-of-the-art X-ray crystallography and magnetic resonance analysis that provide detail on protein structures at high-resolution - Laser-scanning and confocal light microscopes that reveal molecules tagged with fluorescent markers as they traffic within cells and pass transfer signals within and between cells - High performance computing and grid-based integration of distributed data CRBS facilitates an interdisciplinary infrastructure in which people from biology, medicine, chemistry, and physics can work with those from computer science and information technologies in collaborative research. Researchers share interests in the study of complex biological systems at many scales, from the structures of enzymes, proteins, and the body's chemical communications network at atomic and molecular levels, to an organism's physiology, strength, and support at cellular and tissue levels. The CRBS infrastructure integrates resources for high-performance computing, visualization, and database technologies, and the grid-integration of large amounts of archival storage data. The California Institute for Telecommunications and Information Technology (Cal-IT2) and the San Diego Supercomputer Center (SDSC) are collaborators in simulating the activity of biological systems, analyzing the results, and organizing the growing storehouse of biological information. CRBS is an entity evolving as research evolves. It forges interactions with biotechnology and biocomputing companies for technology transfer. Interaction, collaboration, and multiscale research produce new perspectives, reveal fruitful research

topics, lead to the development of new technologies and drugs, and train a new generation of researchers in biological systems. Sponsors: CRBS is supported by the University of California at San Diego.

Synonyms: CRBS

Resource Type: organization portal, data or information resource, portal

Keywords: drug, electron microscope, enzyme, fluorescent, administrative, atomic, biocomputing, biological system, biology, biotechnology, cardiovascular, cell, central nervous system, chemistry, computer science, computing, confocal light microscope, contraction, database, grid-based integration, high technology equipment, human, laser-scanning microscope, magnetic resonance analysis, marker, medicine, molecule, muscular, networking, organism, physics, physiology, process, protein, research, resolution, signal transfer, structure, technology, three-dimensional, tissue, traffic, visualization, x-ray crystallography

Funding:

Resource Name: Center for Research in Biological Systems

Resource ID: SCR_002666

Alternate IDs: nif-0000-23293

Alternate URLs: <https://api.datacite.org/doi?prefix=10.7295>

Record Creation Time: 20220129T080214+0000

Record Last Update: 20250517T055543+0000

Ratings and Alerts

No rating or validation information has been found for Center for Research in Biological Systems.

No alerts have been found for Center for Research in Biological Systems.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We have not found any literature mentions for this resource.