

Resource Summary Report

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National Center for Macromolecular Imaging

RRID:SCR_001445

Type: Tool

Proper Citation

National Center for Macromolecular Imaging (RRID:SCR_001445)

Resource Information

URL: <http://ncmi.bcm.edu/ncmi/>

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Description: Biomedical technology research center establishing the infrastructure for fast, routine, atomic structure determination of subcellular complexes by electron cryo-microscopy, computer reconstruction and modeling. Their emphasis is on specimens that cannot currently be studied by conventional structural techniques such as x-ray crystallography or NMR. The ultimate outcome of their research is a three-dimensional image of the complex that can be used for design of drugs and vaccines for a variety of diseases. The center is focused on extending the resolution, speed and flexibility of cryo-electron microscopy for the three-dimensional structure determination of biological macromolecular assemblies. Cryo-electron microscopy can visualize molecules under near-native conditions at resolutions ranging from 0.3 to 5 nm and can yield images of individual molecules in a range of different conformations as they exist in solution. Other cryo-electron microscopy techniques, such as cryo-electron tomography, are being developed to capture molecular structures in situ. The equipment, techniques and expertise developed are available to the research community through collaborative projects. The NCMI also provides training through workshops and other forms of dissemination via both traditional and modern Internet-based methods.

Abbreviations: NCMI

Resource Type: biomedical technology research center, access service resource, training resource, service resource

Keywords: cryo-electron microscopy, structure determination, structure, macromolecule, assembly, model, reconstruction, subcellular complex, electron cryo-microscopy, 3d spatial image, structural biology technology center

Funding: NIGMS 3R01GM079429-05S1

Availability: THIS RESOURCE IS NO LONGER IN SERVICE

Resource Name: National Center for Macromolecular Imaging

Resource ID: SCR_001445

Alternate IDs: nlx_152670

Record Creation Time: 20220129T080207+0000

Record Last Update: 20260808T190540+0000

Ratings and Alerts

No rating or validation information has been found for National Center for Macromolecular Imaging.

No alerts have been found for National Center for Macromolecular Imaging.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 1 mentions in open access literature.

Listed below are recent publications. The full list is available at [SPARC SAWG](#) .

Patwardhan A, et al. (2016) Databases and Archiving for CryoEM. Methods in enzymology, 579, 393.