Generated by RRID on May 15, 2025

## Northwestern University School of Medicine Structural Biology Core Facility

RRID:SCR\_017952 Type: Tool

**Proper Citation** 

Northwestern University School of Medicine Structural Biology Core Facility (RRID:SCR\_017952)

## **Resource Information**

URL: https://www.feinberg.northwestern.edu/research/cores/units/structural-bio.html

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**Description:** Core provides equipment, training, technical support, and maintenance of equipment for studying structures of biological macromolecules and materials. Serves with expertise in structural and computational biology. Services offered include Macromolecular Structure Determination and Analysis, Macromolecular crystallography at LS-CAT, Robotics equipment for crystallization experiments,UV crystal imaging capabilities,Software for structure analysis. Graphics facilities for visualization/presentation of molecular structures, Computer servers specialized for structural biology calculationss, Support and Training X-ray crystallography, from designing crystallization experiments to structure determination and refinemen, Molecular graphics for analysis and presentation, CryoEM and EM training.Resources Available:Crystallography Art Robbins, Inc. Phoenix and Gryphon crystallization robots, TTP Labtech Dragonfly liquid handler for crystal tray setup, Jansi UVEX UV/Vis microscope/imaging system, Stereomicroscopes (camera equipped, at room temperature and 4 degrees C), Incubators for temperature-controlled crystallization, Coordination of access to LS-CAT for Northwestern University users, CryoEM, JEOL 3200FS TEM equipped with in-column energy filter (omega filter), field emission gun capable of operating at 200 or 300 kV and Gatan K2 Summit Direct Electron Detector, JEOL 1400 with Gatan 4k x 4k Ultrascan CCD camera, Solarus Plasma Cleaner and Pelco easyGlow Discharge Cleaning System, Cressington 308R carbon coater, Gatan Cryoplunge 3 and FEI Vitrobot Mark IV, Gatan 626 cryoholders with 655 Turbo pump stations.Resources available Computational:50+ node cluster running Linux including several single- and multi-GPU nodes,7 Quad-core Intel Xeon 3.4GHz workstations (3D stereo

equipped for visualization and model building) 3 Dual Quad-core Intel Xeon 3.5GHz workstations with GPU computing capabilities (3D stereo equipped for visualization, model building, and GPU computing),LTO6 writers for quick data backup,45 tape LTO6 system for continuous data backup,Over 200 Tb of disk storage including RAID systems,10 Gigabit fiber Ethernet connection to APS.Software Crystallography,CCP4 suite,PHENIX,SHARP,SOLVE,HKL2000,XDS,CryoEM,CryoSparc,Relion3,Leginon,cisTEM,Appion,NMI Modeling, graphics, and simulations,COOT,Pymol,Chimera,APBS,GROMACS,AMBER,VMD/NAMD.

Synonyms: Structural Biology Core

**Resource Type:** service resource, core facility, access service resource

**Keywords:** Medical, structural, biological, macromolecule, material, equipment, training, support, analysis, crystallography, UV, imaging, X-ray, service, core, ABRF

Funding: NCI P30 CA060553

**Resource Name:** Northwestern University School of Medicine Structural Biology Core Facility

Resource ID: SCR\_017952

Alternate IDs: ABRF\_946

**Record Creation Time:** 20220129T080337+0000

Record Last Update: 20250514T061828+0000

## **Ratings and Alerts**

No rating or validation information has been found for Northwestern University School of Medicine Structural Biology Core Facility.

No alerts have been found for Northwestern University School of Medicine Structural Biology Core Facility.

Data and Source Information

Source: <u>SciCrunch Registry</u>

## **Usage and Citation Metrics**

We found 2 mentions in open access literature.

Listed below are recent publications. The full list is available at <u>RRID</u>.

Guo K, et al. (2023) KANK1 shapes focal adhesions by orchestrating protein binding, mechanical force sensing, and phase separation. Cell reports, 42(11), 113321.

Hill JH, et al. (2022) BefA, a microbiota-secreted membrane disrupter, disseminates to the pancreas and increases ? cell mass. Cell metabolism, 34(11), 1779.