

# Resource Summary Report

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## BioCAT

RRID:SCR\_001440

Type: Tool

### Proper Citation

BioCAT (RRID:SCR\_001440)

### Resource Information

**URL:** <https://www.bio.aps.anl.gov/>

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**Description:** Biomedical technology research center and training resource for the study of the structure of partially ordered biological molecules, complexes of biomolecules and cellular structures under conditions similar to those present in living cells and tissues. The goal of research at BioCAT is to determine the detailed structure and mechanism of action of biological systems at the molecular level. The techniques used are X-ray fiber diffraction, X-ray solution scattering and X-ray micro-emission and micro-absorption spectroscopy, with an emphasis on time-resolved studies and the development of novel techniques.

**Abbreviations:** BioCAT

**Synonyms:** Biophysics Collaborative Access Team

**Resource Type:** biomedical technology research center, training resource

**Keywords:** biological system, structure, function, molecule, complex, cellular structure, cell, tissue, x-ray, fiber diffraction, solution scattering, micro-emission, micro-absorption spectroscopy, time-resolved, x-ray micro-imaging, macromolecule, structural biology technology center, photon, microprobe

**Funding:** NCRR U41RR008630

**Resource Name:** BioCAT

**Resource ID:** SCR\_001440

**Alternate IDs:** nlx\_152666

**Alternate URLs:** <http://www.bio.aps.anl.gov/>

**Record Creation Time:** 20220129T080207+0000

**Record Last Update:** 20260905T133321+0000

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## Ratings and Alerts

No rating or validation information has been found for BioCAT.

No alerts have been found for BioCAT.

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## Data and Source Information

**Source:** [SciCrunch Registry](#)

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## Usage and Citation Metrics

We found 1000 mentions in open access literature.

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

Welz B, et al. (2026) Discovery and characterization of gene-by-environment and epistatic genetic effects in a vertebrate model. *Cell genomics*, 6(5), 101164.

Anders A, et al. (2026) Cell-internal autocrine receptor inactivation supports maintenance of mating-type identity in yeast. *Science advances*, 12(17), eaeb1729.

Vergelli C, et al. (2026) Discovery of Potent PDE4 Inhibitors with 3(2H)-Pyridazinone Scaffold: Synthesis, In Silico Studies and In Vitro/Vivo Evaluation. *Molecules (Basel, Switzerland)*, 31(4).

Wildhagen M, et al. (2026) Optimized Bioconversion of Naringenin to Hesperetin in *Escherichia coli* With Halide Methyltransferase-Mediated S-Adenosylmethionine Regeneration. *Engineering in life sciences*, 26(2), e70069.

Dislers A, et al. (2026) Immunogenicity of SARS-CoV-2 vaccine prototype based on virus-like particles of hepatitis B core antigen from genotype G and interleukin 12 expressing Semliki Forest virus as a genetic adjuvant. *The Journal of general virology*, 107(3).

Guillén-Samander A, et al. (2026) A bridge-like lipid transfer protein is critical for generation of invasive stages in malaria parasites. *Nature communications*, 17(1).

Haws W, et al. (2026) STI1 domains coordinate partitioning of UBQLN2 into stress-induced condensates. *bioRxiv : the preprint server for biology*.

Gore G, et al. (2026) Cefdinir binding to a class A  $\beta$ -lactamase revealed by serial cryo-crystallography. *Acta crystallographica. Section D, Structural biology*, 82(Pt 6), 672.

Hsu SL, et al. (2026) CoCl<sub>2</sub>-induced alterations in antioxidative and inflammatory marker expression in an siRNA-based in vitro model of aniridia-associated limbal epithelial dysfunction. *BMC ophthalmology*, 26(1).

Bettin L, et al. (2026) A novel CD69 binding ankyrin repeat protein (Ankyron™) enables detection of early activated and antigen-specific T cells in pigs. Research square.

Kraege A, et al. (2026) Undermining the cry for help: the phytopathogenic fungus *Verticillium dahliae* secretes an antimicrobial effector protein to undermine host recruitment of antagonistic *Pseudomonas* bacteria. The New phytologist, 249(1), 406.

Mohran S, et al. (2026) Myosin Modulator Aficamten Inhibits Force by Altering Myosin's Biochemical Activity Without Changing Thick Filament Structure. JACC. Basic to translational science, 11(1), 101449.

Thiel V, et al. (2026) Proteomic Characterization Reveals CYP2S1 as a Mediator of Drug Resistance in PDAC. Pancreas, 55(1), e82.

Liu Y, et al. (2026) Integrated scFv identification and CAR T cell generation for AML targeting in vivo. International journal of cancer, 158(4), 994.

Bernasconi Z, et al. (2026) Virulence on Pm4 kinase-based resistance is determined by two divergent wheat powdery mildew effectors. Nature plants, 12(1), 164.

Sonner JK, et al. (2026) A GDF-15-GFRAL axis controls autoimmune T cell responses during neuroinflammation. Nature immunology, 27(3), 503.

Ivanova I, et al. (2026) Exploring UVA1-Induced Metabolic Effects in Different In Vitro, Ex Vivo, and In Vivo Systems. Metabolites, 16(2).

Salik Demirtas N, et al. (2026) Hypoxia or tobacco-smoke exposure induce region-specific microvascular remodeling in the brain. Scientific reports, 16(1).

Vejzovic D, et al. (2026) Bacterial cell fate under stress: lipid remodeling and antimicrobial peptide attack. npj antimicrobials and resistance, 4(1).

Khodadadi L, et al. (2026) Selective Depletion of Autoreactive Plasma Cells as a Novel Strategy to Treat Acetylcholine Receptor Antibody-Positive Myasthenia Gravis. European journal of immunology, 56(4), e70166.