

Resource Summary Report

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Montana State University Cryo-EM Core Facility

RRID:SCR_026324

Type: Tool

Proper Citation

Montana State University Cryo-EM Core Facility (RRID:SCR_026324)

Resource Information

URL: <https://www.montana.edu/cryo-electron-microscopy/>

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Description: Core provides single particle analysis and cryo-electron tomography. Instrumentation includes 200 kV Talos Arctica with Gatan K3 camera, 120 kV Tecnai Spirit, and Vitrobot Mark IV allowing imaging of biological structures at single nanometer to sub-nanometer resolutions, and thus enable 3D modeling of cells, viruses, proteins, nucleic acid, and other soft matter at the atomic level.

Synonyms: , Montana State University - Cryo-EM Core Facility

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

Keywords: ABRF, single particle analysis, cryo-electron tomography,

Funding: NSF DBI-1828765 10/01/18 - 09/30/22 A Multi-User Cryo-Electron Microscope for the Cellular and Molecular Life Sciences Community in the Northern Rocky Mountain Region Major goals were the purchase ; installation and commissioning of a Talos Arctica 200 kV cryo-electron microscope with a Gatan K3 direct electron detector at Montana State University; MJ Murdock Charitable Trust 01/03/2018 – 07/31/2022 A Multi-User Cryo-Electron Microscope for the Cellular and Molecular Life Sciences Community in the Northern Rocky Mountain Region The major goal of this proposal was to augment the above NSF-MRI funding for the purchase ; installation and commissioning of a Talos Arctica 200 kV cryo-electron microscope with a Gatan K3 direct electron detector at Montana State University; NIH P30GM140963 08/01/2021 – 07/31/2026 University of Montana COBRE ; Biomolecular Structure and Dynamics Provides partial salary support for the MSU cryo-EM Facility Manager.

Availability: Open

Resource Name: Montana State University Cryo-EM Core Facility

Resource ID: SCR_026324

Alternate IDs: ABRF_2979

Alternate URLs: <https://coremarketplace.org/?FacilityID=2979&citation=1>

Record Creation Time: 20250123T053318+0000

Record Last Update: 20260912T200502+0000

Ratings and Alerts

No rating or validation information has been found for Montana State University Cryo-EM Core Facility.

No alerts have been found for Montana State University Cryo-EM Core Facility.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 10 mentions in open access literature.

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

Pershing NL, et al. (2026) A prophage-encoded sRNA limits phage infection of adherent-invasive E. coli. PLoS pathogens, 22(1), e1013836.

Malkoc Z, et al. (2026) Sub-Neuronal Network Profiling of Extracellular Vesicle Release Using a Compartmentalized Neurofluidic Platform. Advanced biology, 10(2), e00381.

Gauvin CC, et al. (2026) A cost-effective 200 kV cryo-EM core facility for high resolution single particle analysis. Methods in microscopy, 3(1), 55.

Pandey S, et al. (2026) Identification and structure determination of a type III-Bv CRISPR complex that post-translationally modifies an associated toxin. Structure (London, England : 1993).

Henriques WS, et al. (2025) Structures reveal how the Cas1-2/3 integrase captures, delivers, and integrates foreign DNA into CRISPR loci. bioRxiv : the preprint server for biology.

Tang S, et al. (2025) Protein-primed DNA homopolymer synthesis by an antiviral reverse transcriptase. bioRxiv : the preprint server for biology.

Kumar Nath A, et al. (2025) Commensal gut bacteria employ de-chelatase HmuS to harvest iron from heme. The EMBO journal.

Tang S, et al. (2025) Protein-primed homopolymer synthesis by an antiviral reverse transcriptase. *Nature*, 643(8074), 1352.

Henriques WS, et al. (2025) Structures reveal how the Cas1-2/3 integrase captures, delivers, and integrates foreign DNA into CRISPR loci. *Structure (London, England : 1993)*, 33(12), 2058.

Gauvin CC, et al. (2025) The Mechanism of Mineral Nucleation and Growth in a Mini-Ferritin. *Journal of the American Chemical Society*, 147(41), 37030.