Resource Summary Report

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University of Nebraska Medical Center Advanced Microscopy Core Facility

RRID:SCR_022467
Type: Tool

Proper Citation

University of Nebraska Medical Center Advanced Microscopy Core Facility (RRID:SCR_022467)

Resource Information

URL: https://www.unmc.edu/vcr/cores/vcr-cores/confocal-microscopy/index.html

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Description: Facility houses imaging technologies ranging from super resolution (~ 0.120 um to 0.020 um) to microscopic (~ 0.300 um) to mesoscopic (~ 1 um) biomedical imaging. Imaging specialists provide training and/or actively assist researchers collecting images across imaging instrumentation. Instrumentation includes Zeiss ELYRA PS.1 is inverted microscope for super resolution (SR) structured illumination microscopy (SIM) and single molecule localization microscopy (SMLM) including, PhotoActivated Localization Microscopy (PALM) using photo switchable/convertible fluorescent proteins, Total Internal Reflection Fluorescence (TIRF) and STochastic Optical Reconstruction Microscopy (STORM);Zeiss 800 CLSM with Airyscan is an inverted microscope dramatically increasing conventional confocal image resolution to ~180 nm using Airyscan technology; Zeiss 710 LSM is inverted microscope supporting most basic imaging applications, multi channel and spectral, co localization, live cell, 3D, and time series imaging; Zeiss Celldiscoverer 7 is widefield imaging system for automated, time lapse imaging of live samples; Zeiss Axioscan 7 is high performance whole slide scanning system for fluorescence, brightfield, and polarization imaging;Miltenyi Biotec Ultramicroscope II Light Sheet fluorescence microscope (LSFM) extends fluorescent imaging into true 3D, large scale volumetric imaging of intact tissues, organs, and small organisms. AMCF also houses several high-end data analysis workstations with premier image analysis software including HALO (Indica Labs) and IMARIS (Oxford Instruments) facilitating data rendering, analyses, and presentation options.

Synonyms: UNMC Advanced Microscopy Core Facility

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

Keywords: USEDit, ABRF, biomedical imaging, microscopy

Funding: NCI CA036727;
NCRR RR027301;
NIGMS GM103427;
NIGMS GM106397;
NIH Office of the Director OD030486

Availability: open

Resource Name: University of Nebraska Medical Center Advanced Microscopy Core Facility

Resource ID: SCR_022467

Alternate IDs: ABRF_1375

Alternate URLs: https://coremarketplace.org/?FacilityID=1375&citation=1

Record Creation Time: 20220603T050143+0000

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Ratings and Alerts

No rating or validation information has been found for University of Nebraska Medical Center Advanced Microscopy Core Facility.

No alerts have been found for University of Nebraska Medical Center Advanced Microscopy Core Facility.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 23 mentions in open access literature.

Listed below are recent publications. The full list is available at dkNET .

Smith DR, et al. (2026) ZIP8 loss impairs macrophage-mediated phagolysosomal removal of bacteria and is overcome by butyrate supplementation. Communications biology.

Dhir A, et al. (2026) The splicing factor PTBP1 interacts with RUNX1 and is required for leukemia cell survival. Leukemia, 40(1), 138.

Namvaran A, et al. (2026) Prolonged QT Interval in HIV-1 Infected Humanized Mice Treated Chronically with Dolutegravir/Tenofovir Disoproxil Fumarate/Emtricitabine. International journal of molecular sciences, 27(1).

Myers MS, et al. (2026) BMX-001, a clinically relevant radioprotector, can reverse radiation-induced fibrosis when given three weeks after radiation, in part, by restoring methylation. Redox biology, 90, 104020.

Arumugam P, et al. (2026) Mitochondrial transfer to granulocytic myeloid-derived suppressor cells augments immunosuppressive activity. Cell reports, 45(3), 117057.

Kumar N, et al. (2026) Sex- and Age-Dependent Neuroimmune Dysregulation and Early Neurodegenerative Signatures Following SARS-CoV-2 Infection in Golden Syrian Hamsters. Research square.

Kuss M, et al. (2026) Development of a spatially defined 3Din vitrococulture construct modeling pancreatic cancer-associated cachexia. Biofabrication, 18(2).

Lam C, et al. (2026) PAMD-Ch17, a Polymeric Analog of Plerixafor, Induces Mitochondrial Dysfunction in T-ALL Cells Independent of CXCR4. Molecular cancer therapeutics, 25(8), 1369.

Sivakoses A, et al. (2025) Triple negative breast cancer cells acquire lymphocyte proteins and genomic DNA during trogocytosis with T cells. PeerJ, 13, e19236.

Muehlebach ME, et al. (2025) Geranylgeranyl diphosphate synthase inhibition impairs osteoclast differentiation, morphology, and resorptive activity. JBMR plus, 9(1), ziae133.

Marcarian HQ, et al. (2025) Renal cancer cells acquire immune surface protein through trogocytosis and horizontal gene transfer. PloS one, 20(5), e0325043.

Ray S, et al. (2025) HIF-1 Targeting Intervention Renders Protection From Alzheimer's-Like Pathology in a Humanized Mice Model of HIV Infection. Journal of extracellular vesicles, 14(11), e70191.

Simeon P, et al. (2025) Discovery of Functionalized 1H-Benzo[d]imidazoles That Confer Protective Effects in a Phenotypic CLN3 Disease Patient-Derived iPSC Model. Journal of medicinal chemistry, 68(17), 18530.

Clark KL, et al. (2025) Environmentally relevant concentrations of individual per- and polyfluoroalkyl substances (PFAS) and a PFAS mixture impact proliferation, migration, and gene transcription in a human myometrial cell line. Toxicology, 515, 154173.

Maurya SK, et al. (2025) Mucin 5AC Promotes Breast Cancer Brain Metastasis through cMET/CD44v6. Clinical cancer research : an official journal of the American Association for Cancer Research, 31(5), 921.

Barakat RA, et al. (2025) Perfluorodecanoic acid (PFDA) induces oxidative stress and autophagy dysregulation in HGrC1 cells. Reproductive toxicology (Elmsford, N.Y.), 140, 109136.

Staller DW, et al. (2025) A novel phosphodiesterase inhibitor for the treatment of chronic liver injury and metabolic diseases. Hepatology (Baltimore, Md.), 81(4), 1288.

Krishnan MA, et al. (2024) Engineering Neurotoxin-Functionalized Exosomes for Targeted Delivery to the Peripheral Nervous System. Pharmaceutics, 16(1).

Zallocchi M, et al. (2024) Piplartine attenuates aminoglycoside-induced TRPV1 activity and protects from hearing loss in mice. Science translational medicine, 16(759), eadn2140.

Clark KL, et al. (2024) Adolescent exposure to a mixture of per- and polyfluoroalkyl substances (PFAS) depletes the ovarian reserve, increases ovarian fibrosis, and alters the Hippo pathway in adult female mice. Toxicological sciences : an official journal of the Society of Toxicology, 202(1), 36.