Resource Summary Report

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Donald Danforth Plant Science Center Advanced Bioimaging Laboratory Core Facility

RRID:SCR_018951
Type: Tool

Proper Citation

Donald Danforth Plant Science Center Advanced Bioimaging Laboratory Core Facility (RRID:SCR_018951)

Resource Information

URL: https://www.danforthcenter.org/our-work/core-facilities/advanced-bioimaging-laboratory/

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Description: Core provides instruments for live cell imaging including Leica SP8-X confocal microscope and other fluorescence microscopes. Facility provides workstation for confocal image processing, ancillary equipment required for transmission electron microscopy. Services are provided as self services after user training by IMF staff or as full services done by core facility staff.

Synonyms: Advanced Bioimaging Laboratory, Donald Danforth Plant Science Center Integrated Microscopy Facility

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

Keywords: Live cell imaging, Leica SP8-X, confocal microscope, flulorescent microscope, confocal image processing, transmission electron microscopy, ABRF, ABRF

Funding: NSF ;
NIH

Resource Name: Donald Danforth Plant Science Center Advanced Bioimaging Laboratory Core Facility

Resource ID: SCR_018951

Alternate IDs: ABRF_1026

Alternate URLs: https://www.scienceexchange.com/labs/advanced-bioimaging-laboratory, https://coremarketplace.org/?FacilityID=1026

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Ratings and Alerts

No rating or validation information has been found for Donald Danforth Plant Science Center Advanced Bioimaging Laboratory Core Facility.

No alerts have been found for Donald Danforth Plant Science Center Advanced Bioimaging Laboratory Core Facility.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 22 mentions in open access literature.

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

Lee HS, et al. (2026) Zinc-Mediated Lysosomal Destabilization Links Mitochondrial Damage to Neuronal Death in a Cellular MPP+ Model of Parkinson's Disease. Journal of neurochemistry, 170(2), e70363.

Cox KL, et al. (2025) ExPOSE: a comprehensive toolkit to perform expansion microscopy in plant protoplast systems. The Plant journal : for cell and molecular biology, 121(5), e70049.

Murphy KM, et al. (2025) Excessive leaf oil modulates the plant abiotic stress response via reduced stomatal aperture in tobacco (Nicotiana tabacum). The Plant journal : for cell and molecular biology, 121(6), e70067.

Bélanger S, et al. (2025) DICER-LIKE 5 loss causes thermosensitive male sterility in durum wheat and reveals an AU-rich motif guiding 24-nt phasiRNA biogenesis. Proceedings of the National Academy of Sciences of the United States of America, 122(31), e2504349122.

Czymmek KJ, et al. (2025) Best practices in plant fluorescence imaging and reporting: A primer. The Plant cell, 37(7).

Kalunke RM, et al. (2025) Modes of action and bio-fungicide potential of peptides derived from the bi-domain plant defensin MtDef5. Journal of experimental botany.

Pokhrel A, et al. (2025) NCR13 peptide protects soybean against Cercospora sojina using multi-faceted modes of action and additive interaction with chemical fungicides. Journal of experimental botany.

Li H, et al. (2024) Modes of action and potential as a peptide-based biofungicide of a plant defensin MtDef4. Molecular plant pathology, 25(4), e13458.

Godwin J, et al. (2024) Chickpea NCR13 disulfide cross-linking variants exhibit profound differences in antifungal activity and modes of action. PLoS pathogens, 20(12), e1012745.

Bélanger S, et al. (2023) Plastid dsRNA transgenes trigger phased small RNA-based gene silencing of nuclear-encoded genes. The Plant cell, 35(9), 3398.

Tetorya M, et al. (2023) Plant defensin MtDef4-derived antifungal peptide with multiple modes of action and potential as a bio-inspired fungicide. Molecular plant pathology, 24(8), 896.

Djami-Tchatchou AT, et al. (2023) Small Cationic Cysteine-Rich Defensin-Derived Antifungal Peptide Controls White Mold in Soybean. Journal of fungi (Basel, Switzerland), 9(9).

Yu Y, et al. (2023) Grain shattering by cell death and fracture in Eragrostis tef. Plant physiology, 192(1), 222.

Czymmek KJ, et al. (2023) Realizing the Full Potential of Advanced Microscopy Approaches for Interrogating Plant-Microbe Interactions. Molecular plant-microbe interactions : MPMI, 36(4), 245.

Cox KL, et al. (2022) Automated imaging of duckweed growth and development. Plant direct, 6(9), e439.

Duncan KE, et al. (2022) X-ray microscopy enables multiscale high-resolution 3D imaging of plant cells, tissues, and organs. Plant physiology, 188(2), 831.

Bélanger S, et al. (2022) A versatile enhanced freeze-substitution protocol for volume electron microscopy. Frontiers in cell and developmental biology, 10, 933376.

Zhang N, et al. (2022) Systems-wide analysis revealed shared and unique responses to moderate and acute high temperatures in the green alga Chlamydomonas reinhardtii. Communications biology, 5(1), 460.

Zhang N, et al. (2022) Comparative Phenotyping of Two Commonly Used Chlamydomonas reinhardtii Background Strains: CC-1690 (21gr) and CC-5325 (The CLiP Mutant Library Background). Plants (Basel, Switzerland), 11(5).

Cox KL, et al. (2022) Organizing your space: The potential for integrating spatial transcriptomics and 3D imaging data in plants. Plant physiology, 188(2), 703.