



## Let's work together.

The Danforth Center offers competitive rates for commercial and academic clients. Discounts are available for St. Louis small businesses. Contact the director of the core facility of interest for more information:

### **Advanced Bioimaging Lab**

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### **Bioanalytical Chemistry**

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### **Plant Growth**

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### **Plant Transformation**

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The Danforth Center Core Facilities website includes more information about available instrumentation and expertise. Visit [danforthcenter.org/core](https://danforthcenter.org/core).

## OUR MISSION

Improve the human condition through plant science

## OUR VISION

We seek to feed the hungry and improve human health, while preserving and renewing our environment. Through our endeavors, we enhance the St. Louis region as a world center for plant science.



DONALD DANFORTH  
PLANT SCIENCE CENTER

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[danforthcenter.org](https://danforthcenter.org)

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# Core Facilities @DanforthCenter

*Cutting-edge  
technology for  
cutting-edge  
science*



DONALD DANFORTH  
PLANT SCIENCE CENTER

## Science at the Cutting Edge

Innovative plant science requires cutting-edge technologies. Danforth Center Core Facilities equip scientists with state-of-the-art instrumentation and expertise to do groundbreaking research. They are hubs of collaboration and problem-solving that accelerate discovery and innovation. *Visit our website or contact the core facility's director to learn more.*



## Our Core Facilities

### Advanced Bioimaging Laboratory

To understand the inner workings of cells and tissues of plants and their interactions with the environment, scientists need high-resolution and dynamic imaging. ABL offers contemporary light, confocal, super-resolution, and electron microscopy, along with advanced sample preparation and analysis.

### Bioanalytical Chemistry

This facility conducts proteomic, metabolomic, lipidomic, and ionic studies equipping scientists with the critical insights needed to explore complex biological systems. Through the use of mass spectrometry, we are able to deliver both qualitative and quantitative data for targeted and untargeted biomolecule analysis.

### Data Science

This facility develops and deploys technologies in computing, data analysis and visualization, machine learning, and artificial intelligence to accelerate discoveries from

data and models in plant science. It provides the horsepower needed to analyze vast amounts of information—"big data"—critical to understanding the multi-scale form and function of plants.

### Phenotyping

With multiple systems for automated plant imaging, watering, and weighing, this facility can measure the traits for thousands of plants per day. This information helps scientists identify the key traits that affect plant productivity and resilience to environmental stress, and associate those traits to plant genetics.

### Plant Growth

This cutting-edge research complex provides users with access to a variety of controlled environments, as well as expert horticultural services. Greenhouse spaces and growth chambers are equipped with advanced climate control technologies to promote discovery in fundamental plant science research and new product development.

### Plant Transformation

This facility explores and utilizes genetic engineering technologies to generate transgenic plants to accelerate plant biology research and crop improvement. It provides full-service plant transformation and plant cell biology services, training, consulting, and access to state-of-the-art equipment.

Learn more about our services at [danforthcenter.org/core](https://danforthcenter.org/core)

