Cell Culture



umass.edu/ials/cell-culture

Located on the 4th and 5th floors in the Life Science Laboratories the Cell Culture facility supports research by providing space, equipment, cell cultures (plant and mammalian), media, supplies and training on a recharge basis for both academic labs and corporate partners. The Facility also offers technical expertise and hands on support for custom research projects. Labs are equipped with laminar flow hoods, incubators, centrifuges, refrigerators/freezers, basic microscopes and automated cell counters.

The Plant Cell Culture Library (PCCL) is a globally unique collection of callus cultures representing more than 1,000 diverse plant species.

Starter cultures and growth media may be purchased from the Collection for academic or commercial research with no IP or licensing restrictions.

(umass.edu/ials/pccl-database)

ACCESS

To request access, training, or additional information please contact Michael Daley at mpdaley@umass.edu.

Our rates are competitive and based on usage. Visit our website at umass.edu/ials/cell-culture for current listing.

TRAINING

Training for new users consists of:

- Lab safety training through the campus environmental health and safety (EH&S) department,
- Best practices for cell culture and use of the facility instruments,
- Experimental design,
- Clean up and shutdown of the instrumentation

Once training is complete, researchers are free to operate independently in the facility by reserving time through CORUM. (corum.umass.edu)

UMassAmherst | Core Facilities

Institute for Applied Life Sciences University of Massachusetts Amherst Life Science Laboratories 240 Thatcher Road Amherst, MA 01003

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Cell Culture

Institute for Applied Life Sciences University of Massachusetts Amherst



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Animal and Plant Cell Culture Facilities for Biological and Bioengineering Research

UMassAmherst UMassAmherst umass.edu/ials/cell-culture

RESEARCH CAPABILITIES

Mammalian Cell Culture



- 2 BSL2 Biosafety cabinets
- 2 Heracell VIOS 160i Incubators
- 4°C and -20°C storage
- Inverted Nikon phase contrast microscope
- Centrifuge
- Countess FLII automated cell counter (red/green fluorescence capability)
- CELLINK Bio X 3-D Bioprinter
- Common consumables and media on re-charge basis

General Cell Culture



- 2 BSL2 Biosafety cabinets
- 2 Heracell VIOS 160i Incubators (1 with low oxygen capability)
- Refrigerator
- -20 Freezer
- -80 Freezer
- Liquid nitrogen storage
- Inverted Nikon phase contrast microscope
- Common consumables and media on re-charge basis

Plant Cell Culture



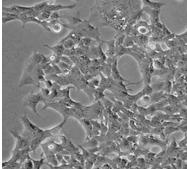
- 2 BSL2 Biosafety cabinets
- Germinator 500 instrument sterilizer

Media prep station, with

- Barnstead EASYpure water filtration system
- Analytical balance and bench scale
- Magnetic stir plates

Technical Service and Expertise





Great ideas, but no lab? We can do the wet work for you!

- Cell Line expansion and cryopreservation
- Stem cell culture
- Liquid nitrogen storage
- Assay Development/optimization
- CRISPR based gene editing and stable clone selection
- Mycoplasma testing
- Lentiviral packaging, titer, transduction
- Molecular biology

Questions about something different? Ask us!
We also offer consultation to help you move your research forward.

Plant Cell Culture Library (PCCL)





The Plant Cell Culture Library (PCCL) is a globally unique collection of callus cell cultures representing more than 1,000 diverse plant species. Plants produce over 200,000 different kinds of small organic chemicals called "secondary" or "specialized" metabolites that serve many important roles in plant biology, and have been used in various industries including pharmaceuticals, cosmetics, flavors, dyes, dietary supplements and fragrances.

This unique living resource is available to the entire research community to discover new biological pathways or new methods for plant based product development.

Starter cultures and growth media may be purchased from the Collection for academic or commercial research with no IP or licensing restrictions.

Search the Collection at www.umass.edu/ials/pccl-database





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TESTIMONIAL

It is well known that plants are a great source for chemical diversity that continues to fuel innovation from drug discovery to consumer products. This technology is unique in that it combines the breadth of the library with a novel approach that sustainably taps into the diversity of natural compounds."

- Sekhar Boddupalli, Monsanto