Located on the 4th and 5th floors in the Life Science Laboratories, the Cell Culture facility supports research by providing space, equipment, and cell cultures (plant and mammalian), media, supplies, and expertise on a recharge basis for both academic labs and corporate partners. The CCF provides cultures for researchers to bring to their labs for experiments, offers media and materials to support cell culture, and also allows use of laminar flow hoods, incubators, centrifuges, refrigerators/freezers, and basic microscopes.

The Plant Cell Culture Library (PCCL) maintains and makes available an unprecedented more than 1,000 diverse plant species for use in research by both academia and industry. The PCCL enables R&D exploitation of monocot, dicot, and gymnosperm cultures. Following an initial consultation, covering experimental parameters training and access is arranged through the director.

ACCESS
To request access, training, or additional information please contact James Chambers at jchambe@umass.edu and for PCCL contact Katie Webster at kwebster@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
- operation of the instrument and associated software
- use of data analysis software
- exporting or presenting data
- clean up and shutdown of the instrumentation.

Once the training is complete, researchers may schedule their experiments through the director of Cell Culture (James Chambers), the PCCL manager (Katie Webster) or on line through FOM (Facilities Online Manager) at fom.umass.edu/fom.

PARTNER WITH US!
Research and Innovation to Translate Basic Science into Product Candidates

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umass.edu/ials/core-facilities
**RESEARCH CAPABILITIES**

### General Cell Culture

- 2 Biosafety cabinets
- 2 Incubators
- Liquid nitrogen storage
- Inverted Nikon phase contrast microscope
- Centrifuge

### Mammalian Cell Culture

- 2 Biosafety cabinets
- 2 Incubators (1 with low oxygen capability)
- Refrigerator
- -20 Freezer
- -80 Freezer
- Liquid nitrogen storage
- Inverted Nikon phase contrast microscope

**Plant Cell Culture Library (PCCL)**

The Plant Cell Culture Library (PCCL) maintains and makes available an unprecedented more than 1,000 diverse plant species for use in research by both academia and industry. The PCCL enables R&D exploitation of monocot, dicot and gymnosperm cultures.

Plants produce over 200,000 different kinds of small organic chemicals called “secondary” or “specialized” metabolites that serve many important roles in plant biology. Plant metabolites have also been exploited for millennia by humans as nutrients, commodities and therapeutics. Despite being a rich source of novel molecules of interest to both basic and applied sciences, only a fraction of the pathways and compounds in plants have been explored. The PCCL is a unique living resource that is available to the research community to define new pathways and chemistries for understanding biological processes and producing new materials.

**Transwell Co-Cultivation System**

(Example of a discovery screen using the PCCL)

**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

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