

## Free Workshop

# Laser Capture Microdissection (LCM) System

If you want to isolate groups of cells or even a single cell from a tissue and a cell culture and maintain *in situ* conditions,

If your tissue samples are paraffin sections, frozen sections, or live cultures,

If you are interested in tissue heterogeneity,

If you want to study rare cells from tissues,

*LCM will be the tool of your choice.*

Laser capture microdissection (LCM) enables you to isolate specific cells from microscopic regions of tissues, cell cultures, or organisms, for protein, RNA, and DNA characterization. To learn more about the technology and see the demonstration of what the instrument can do, please come to the free workshop organized by the 3D cell culture core (3D3C) facility at Birck Nanotechnology Center.

**Lecture: Application of laser capture microdissection system**

**Demonstration: The Applied Biosystems® ArcturusXT™ Laser Capture Microdissection System**

**Session I: January 19<sup>th</sup> 2017 (Thursday)**

**10:00AM – 11:30AM**

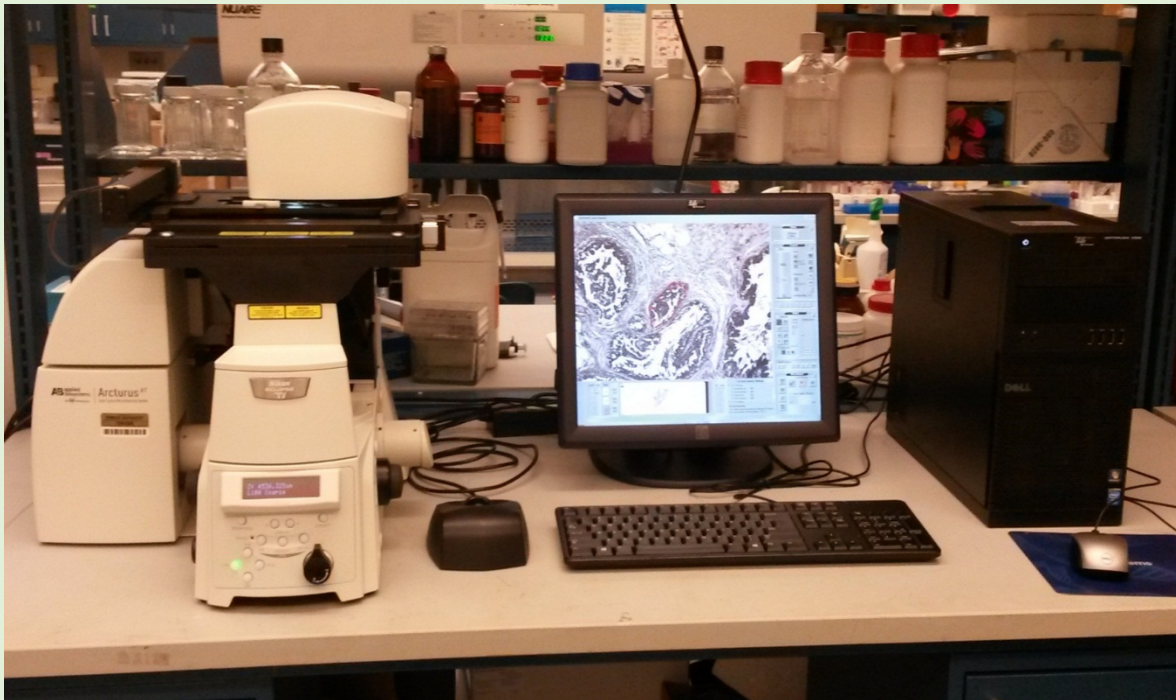
**Session II: January 20<sup>th</sup> 2017 (Friday)**

**10:00AM – 11:30AM**

**Location: Lecture (BRK2001)/ Demonstration (BRK2087)**

Please RSVP for demonstration (Five persons per session): Dr. Tim Kwok, Facility Manager, 3D Cell Culture Core (3D3C) Facility (kwokt@purdue.edu, 765-494-6697)

The 3-D Cell Culture Core Facility (3D3C) at Birck Nanotechnology Center houses a laser capture microdissection system, the Applied Biosystems® ArcturusXT™ Laser Capture Microdissection System from Life Technologies. The system is the latest version of ArcturusXT™ microdissection system based on Nikon Eclipse-Ti-E inverted microscope. It is a unique user-friendly microdissection instrument that combines infrared (IR) laser capture microdissection (LCM) and ultraviolet (UV) laser cutting in one platform. The solid-state IR laser delivers a gentle capture technique that preserves integrity of biomolecules (RNA, etc) and is ideal for single cells and small numbers of cells. The solid-state UV laser permits unprecedented speed and precision and is well-suited for microdissecting dense tissue structures (bone, plant tissue, etc) and for capturing large numbers of cells. The unique combination of IR laser capture and UV laser cutting permits the use of any slide type and any sample preparation, such as thin or thick sections, frozen or formalin-fixed tissues, chromogenic stained, fluorescently stained, or unstained sections, and live cell cultures. The Applied Biosystems® ArcturusXT™ Laser Capture Microdissection System has an open platform that can be upgraded (e.g., with fluorescence illumination capabilities) and expanded to meet research requirements. For inquiries about the laser capture microdissection system, please contact the 3D3C Facility Manager, Dr. Tim Kwok ([kwokt@purdue.edu](mailto:kwokt@purdue.edu); 765-494--6697).



ArcturusXT™ Laser Capture Microdissection System