

Confocal Microscopy for Technicians

May 7, 2021



Confocal Microscope Technicians

Why Confocal Microscopy for Technician?



Multiscale Microscopy Core

The Multiscale Microscopy Core at OHSU is a state-of-the-art electron microscopy core that provides services to academic and corporate users. [See our services](#)



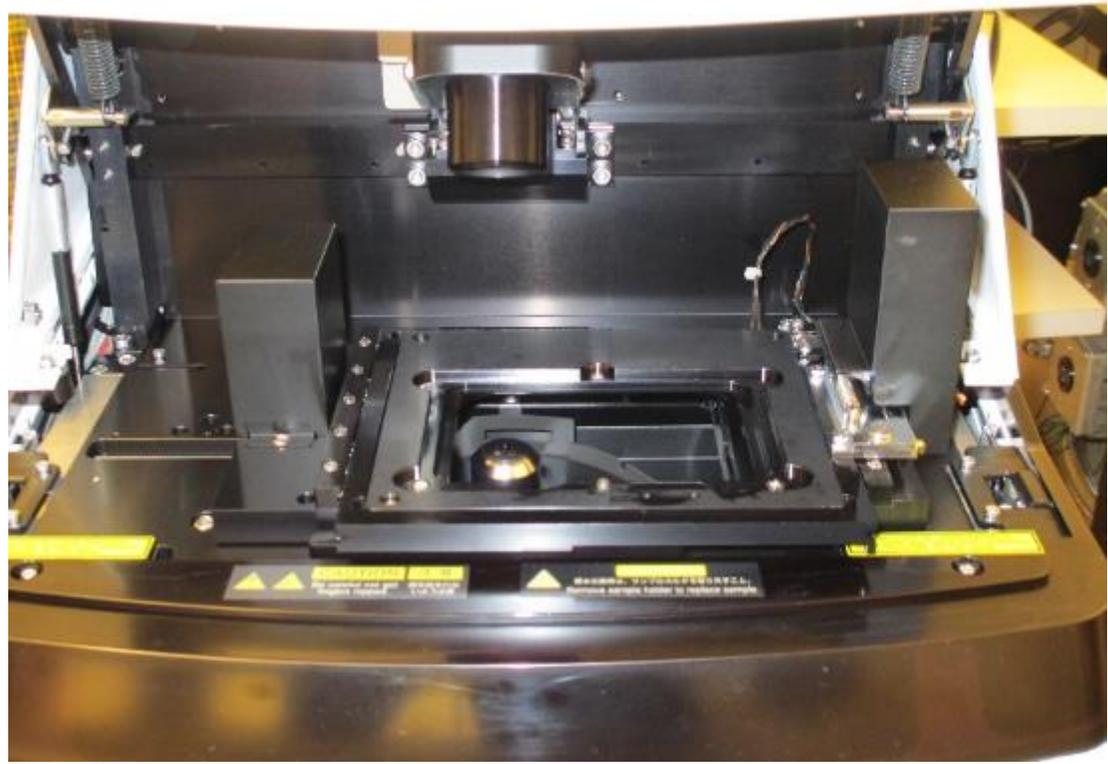
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What do Confocal Technicians Do?

- Prepare Samples
- Image Samples
- Replenish consumables
- Microscope maintenance
- Microscope repair



Confocal Microscope Equipment

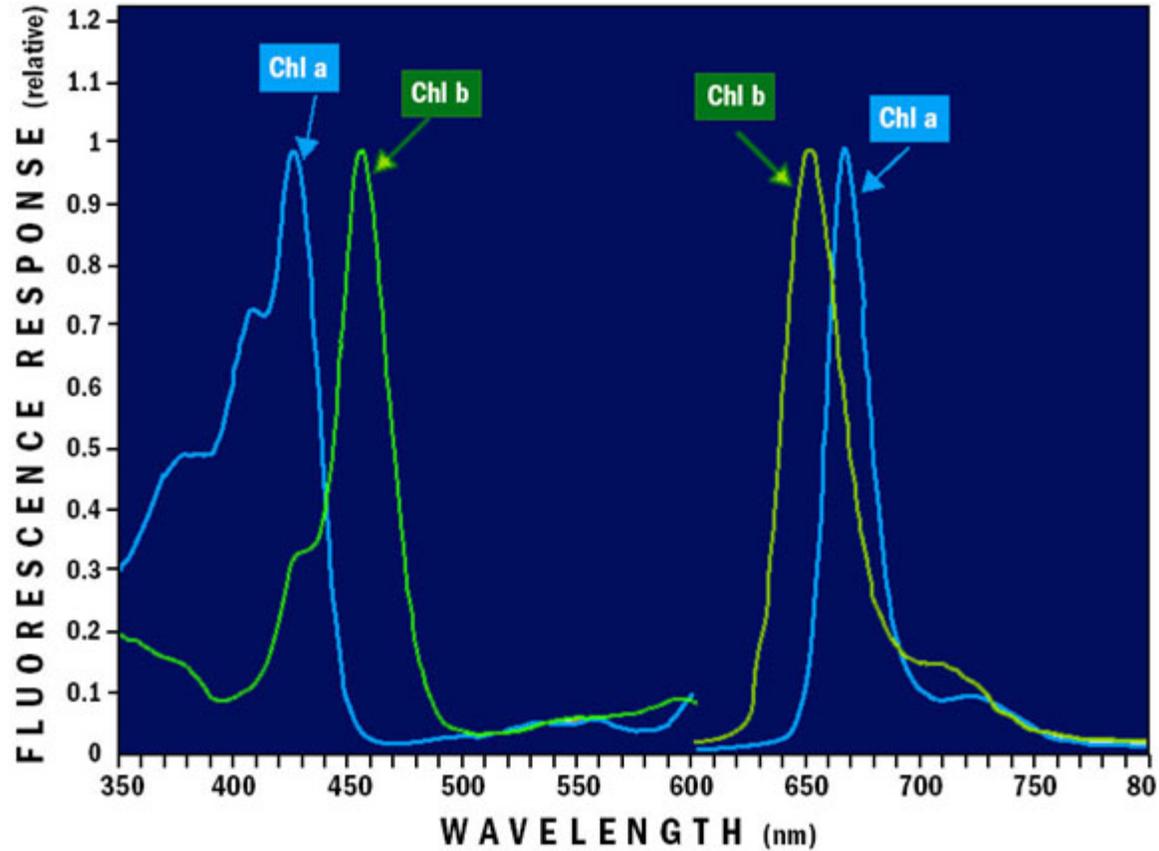


Confocal Microscopy in Art



Technician Student Generated Confocal Images

Chlorophyll Fluorescence



Chlorophyll-a

excitation = 425 nm
emission = 680 nm

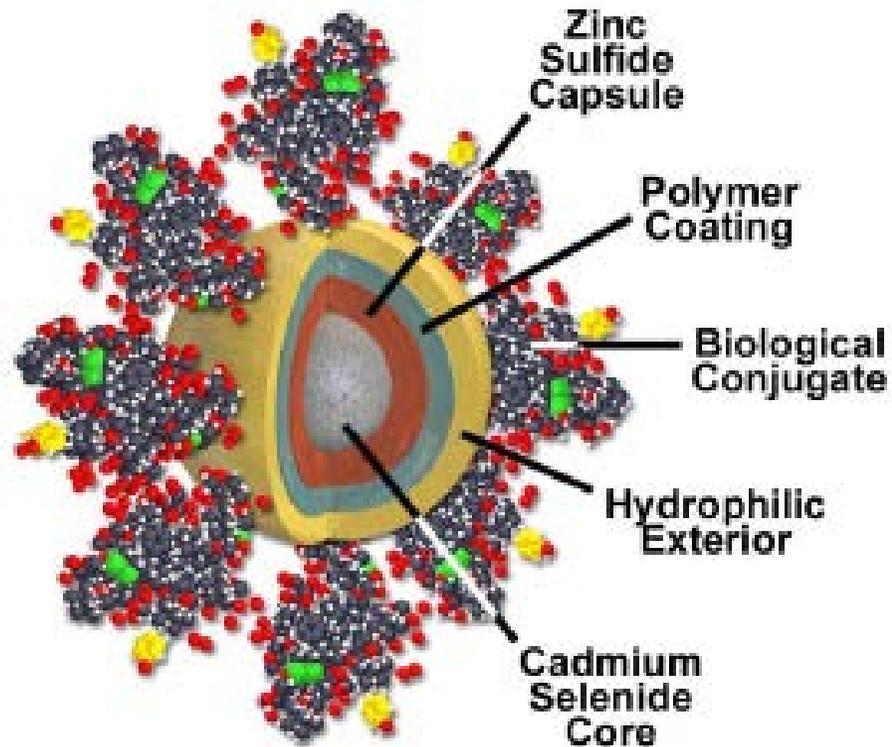
Chlorophyll-b

excitation = 470 nm
emission = 650 nm

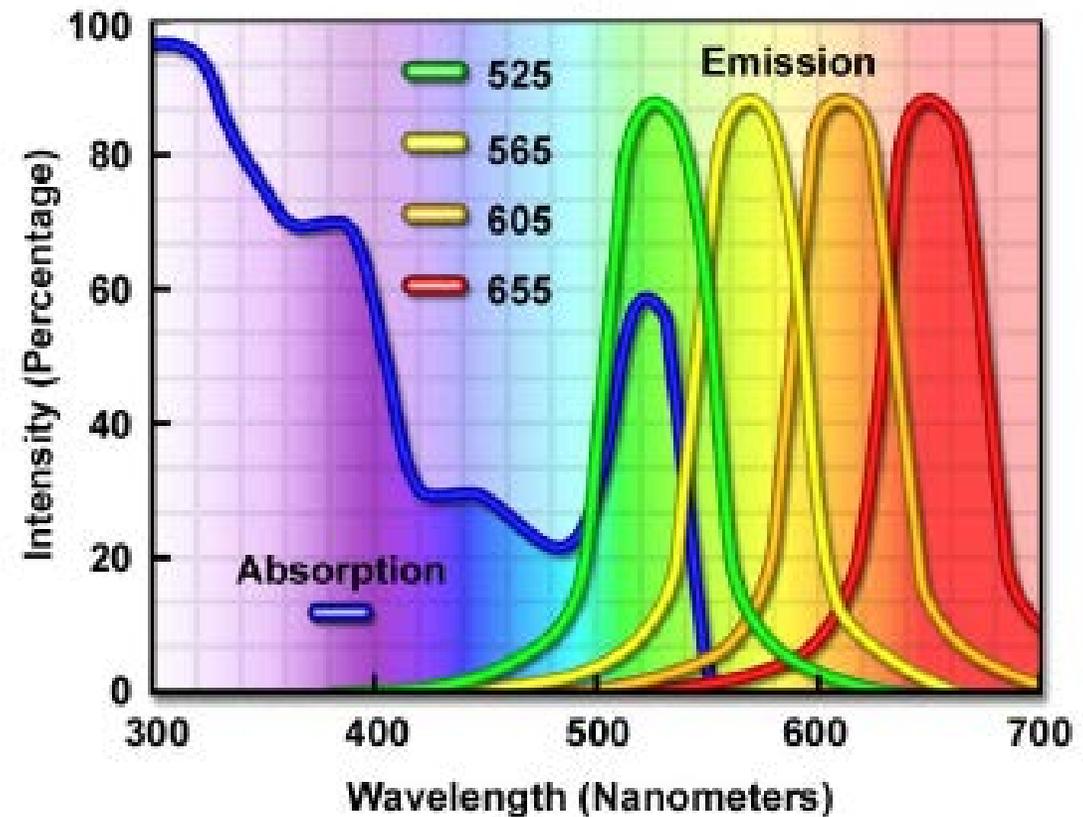


Quantum Dots in Confocal Microscopy

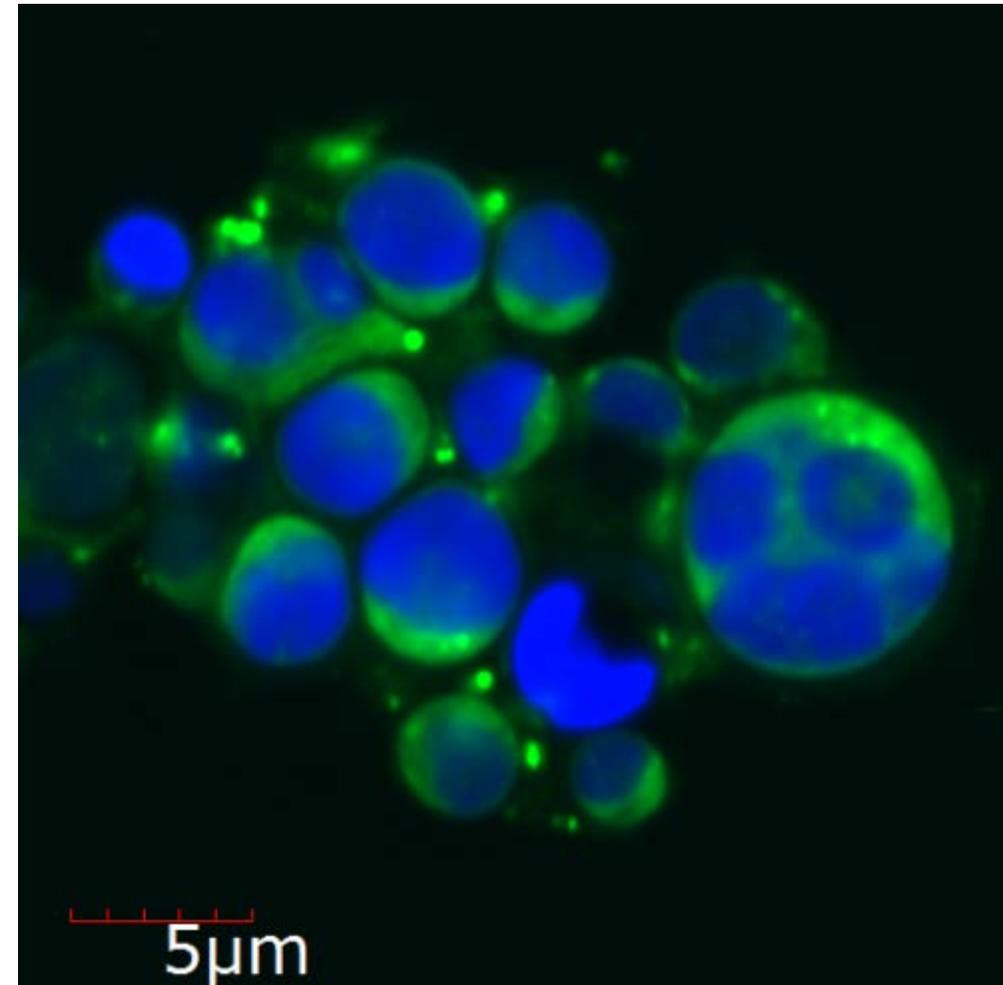
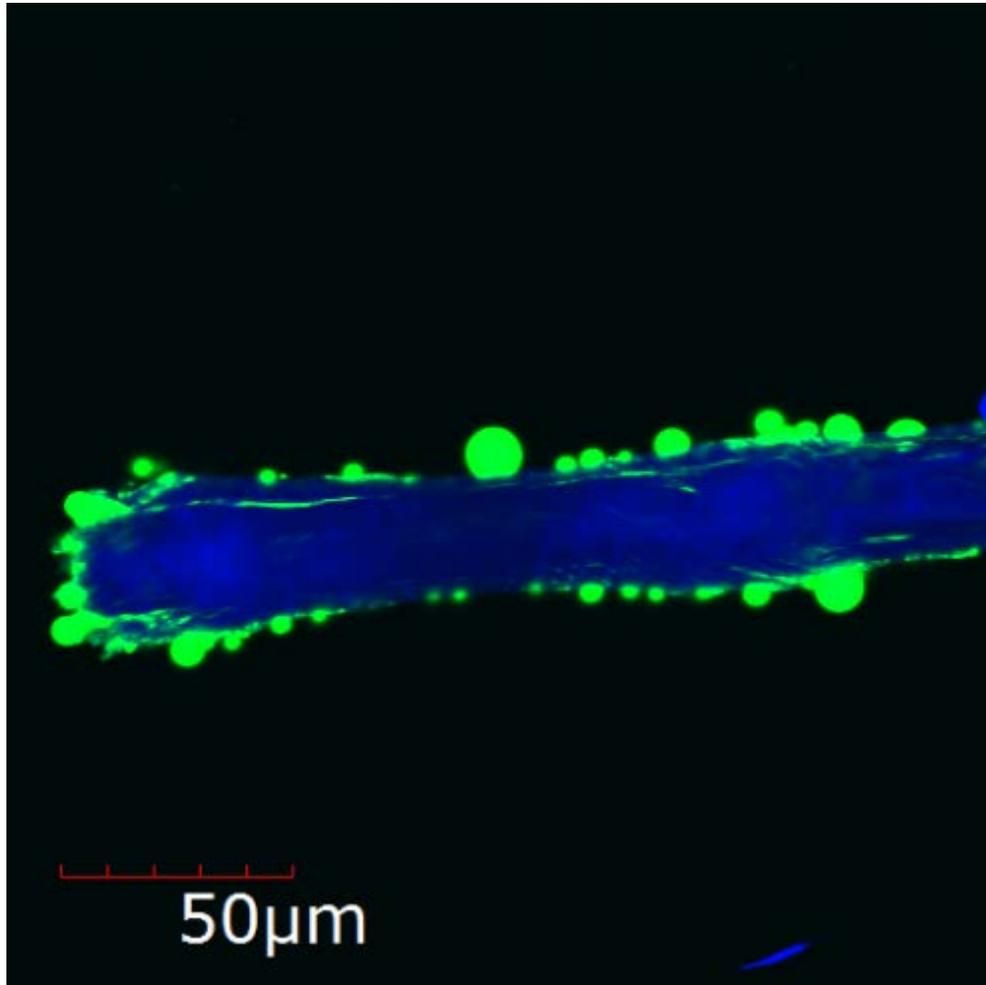
Quantum Dot Anatomy



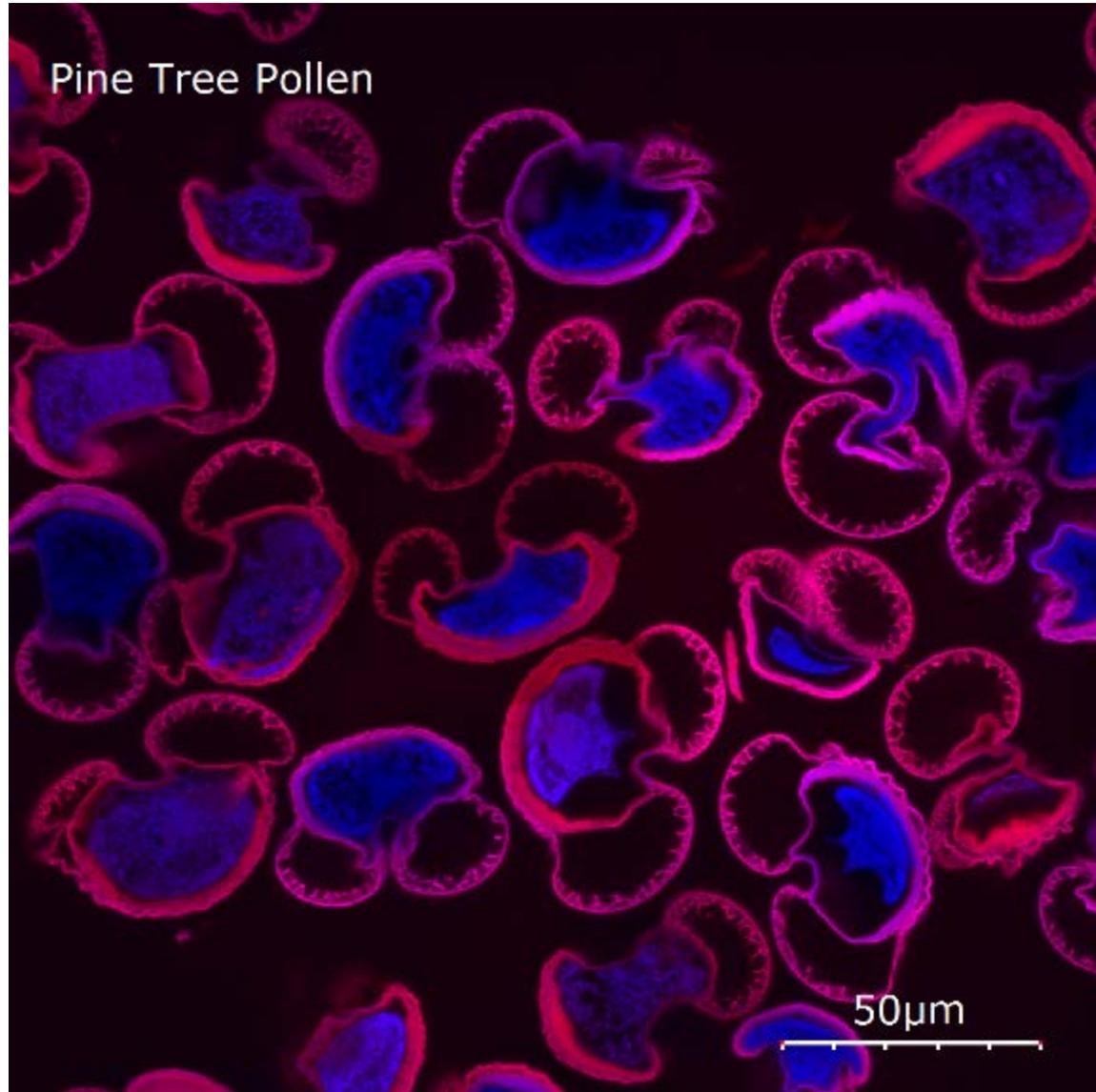
Quantum Dot Spectral Profiles



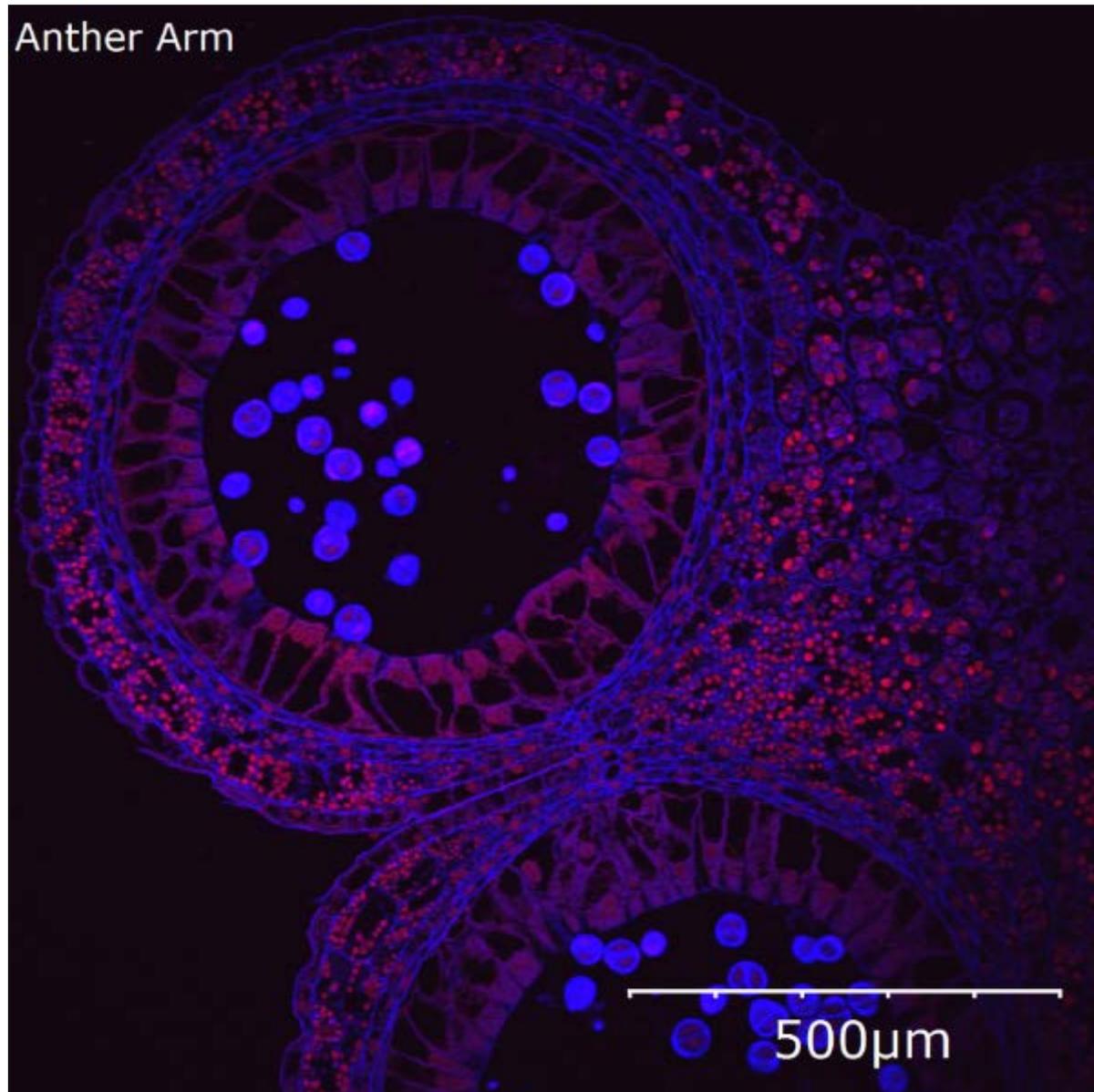
Confocal Images of Algae



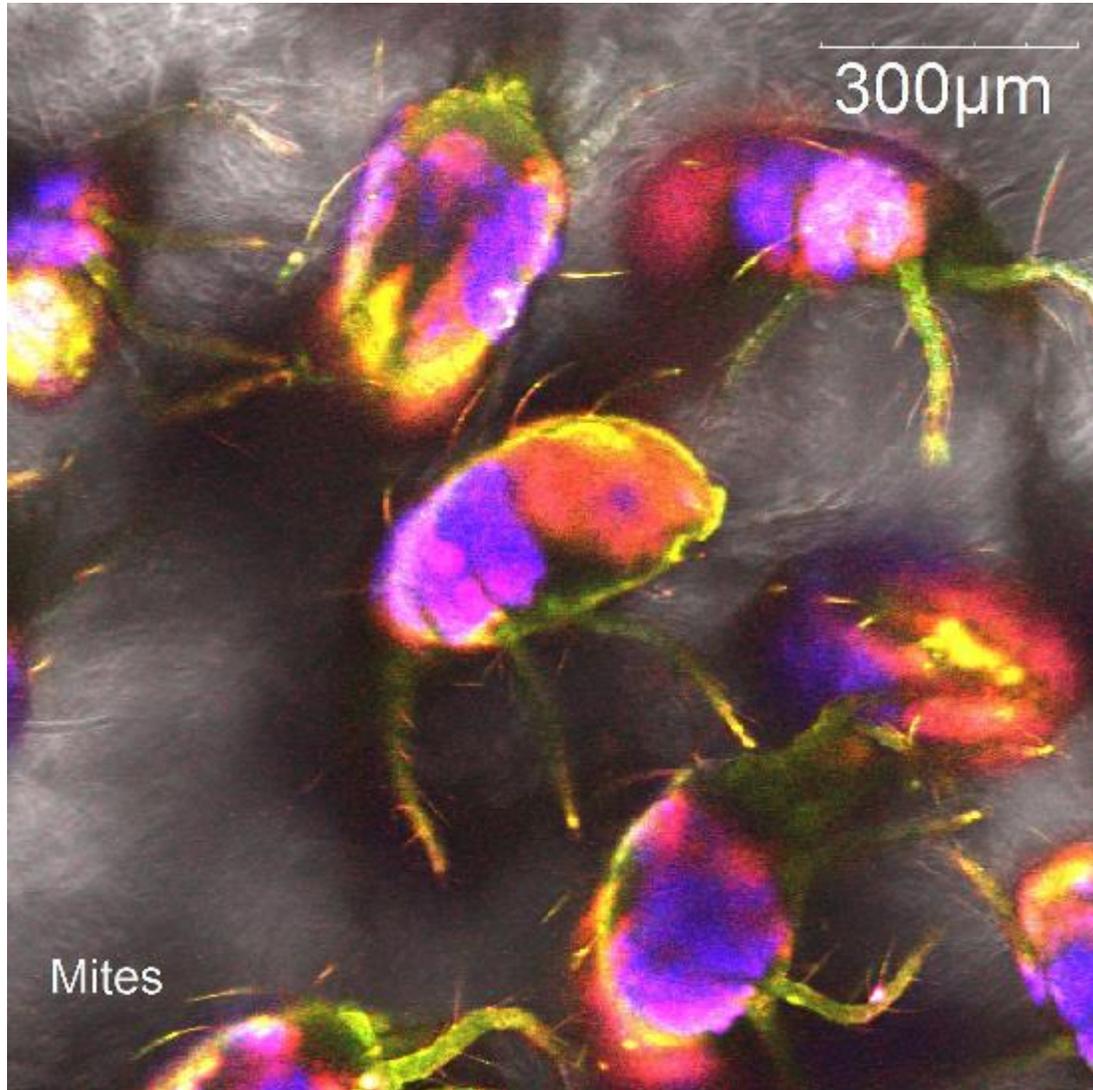
Confocal Image of Pine Tree Pollen



Confocal Image of Anther Arm of a Flower



Confocal Image of Mites



3D Confocal Microscopy

Confocal Planes

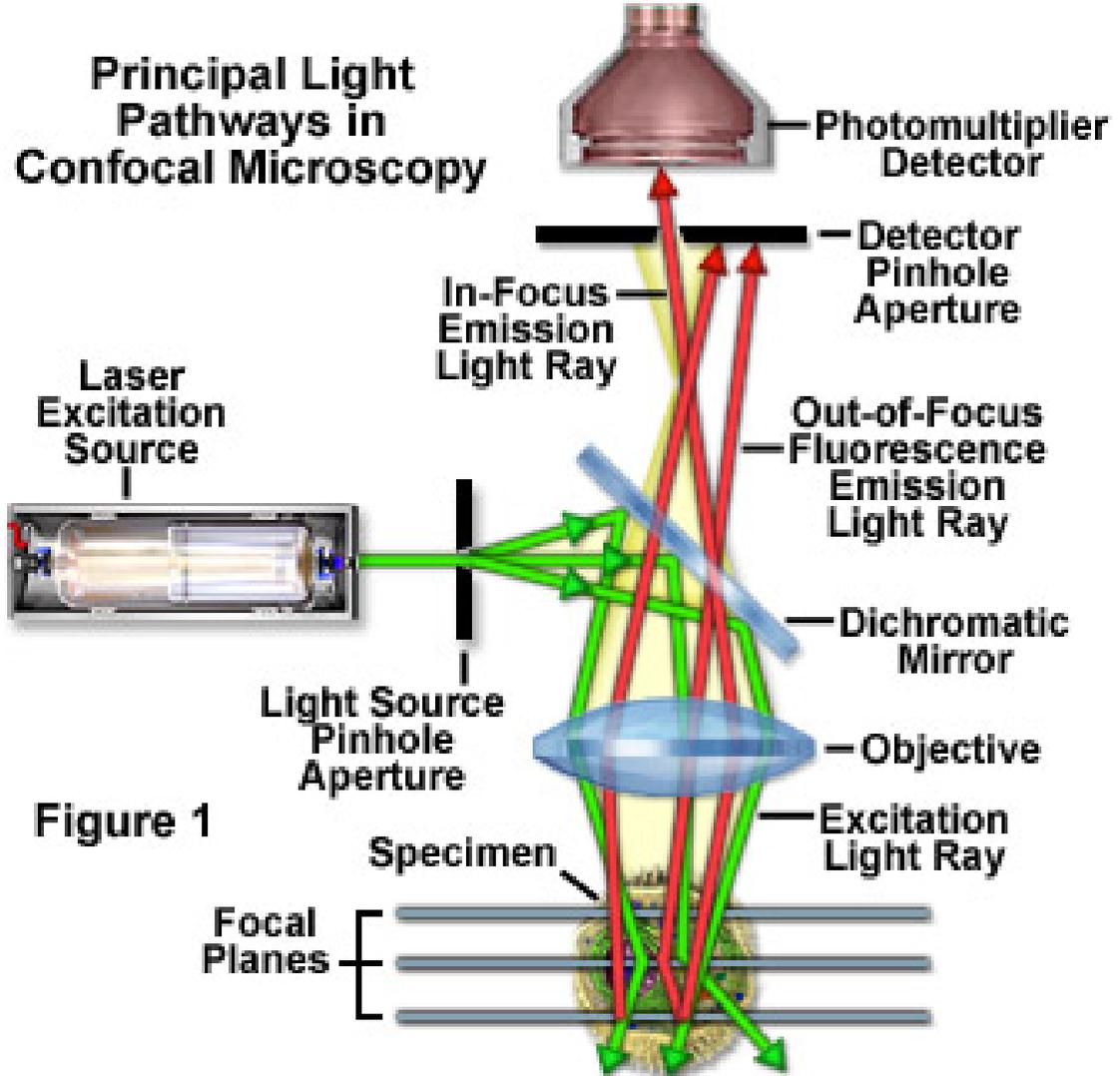
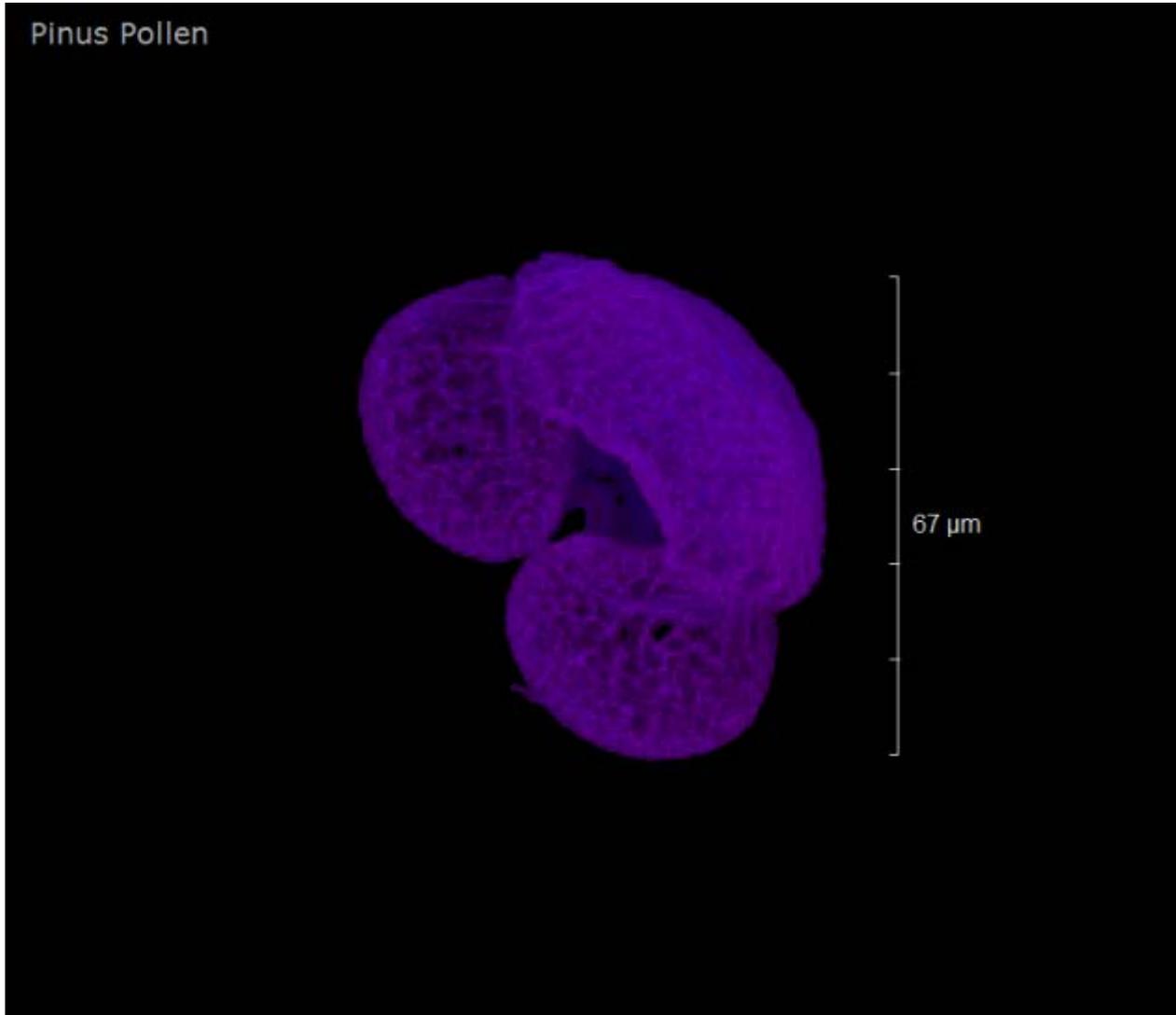
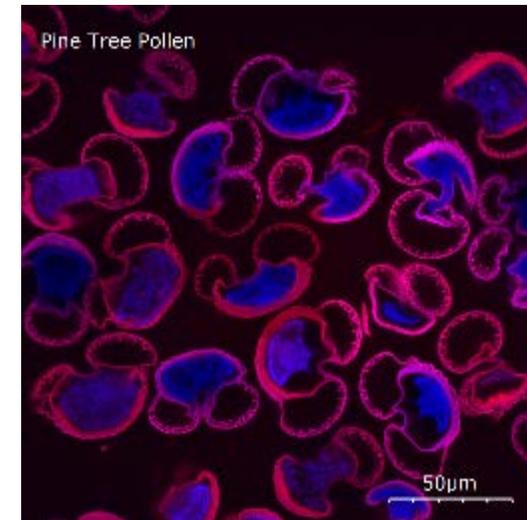


Figure 1

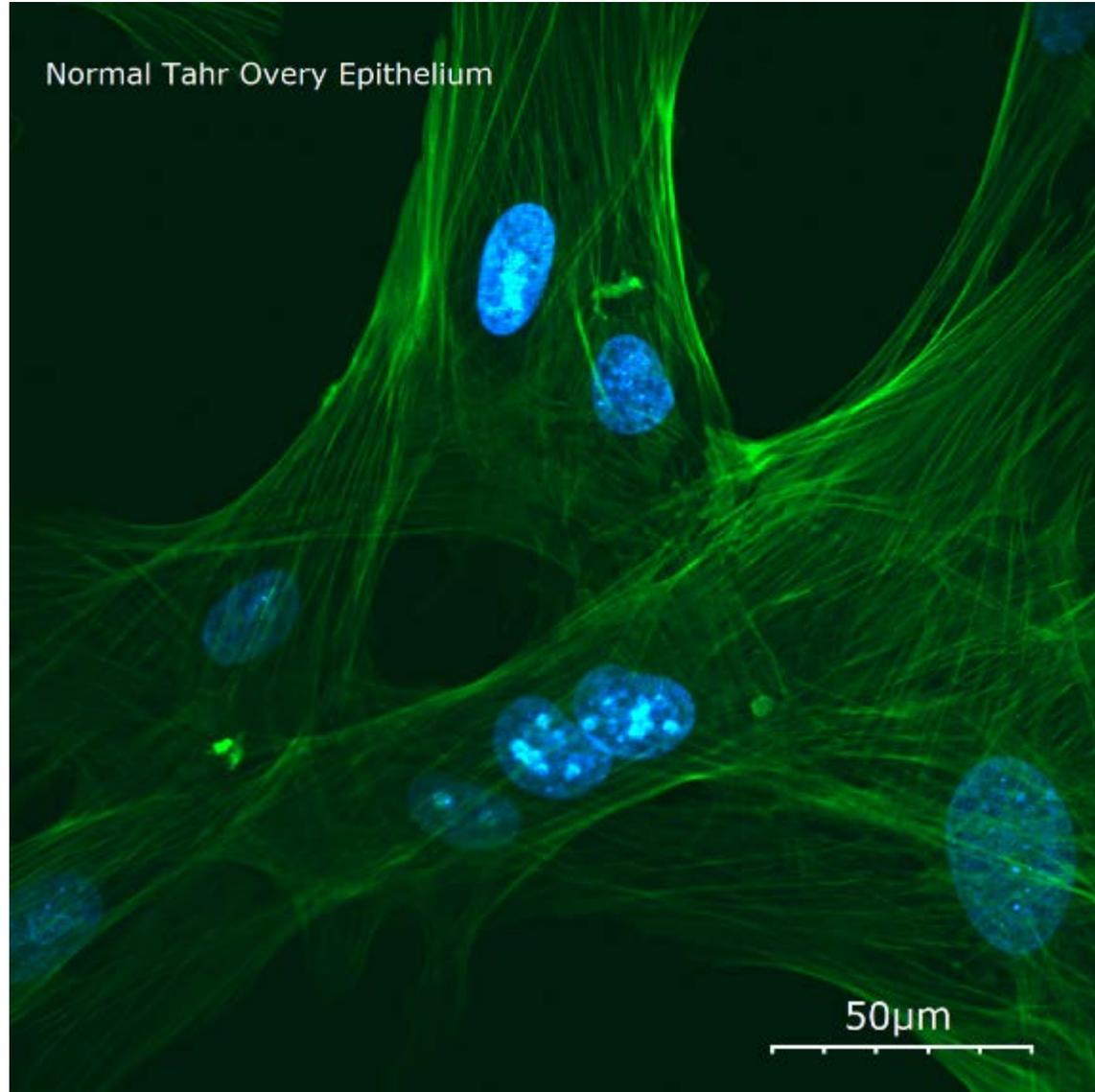
3D Pine Pollen Confocal Image



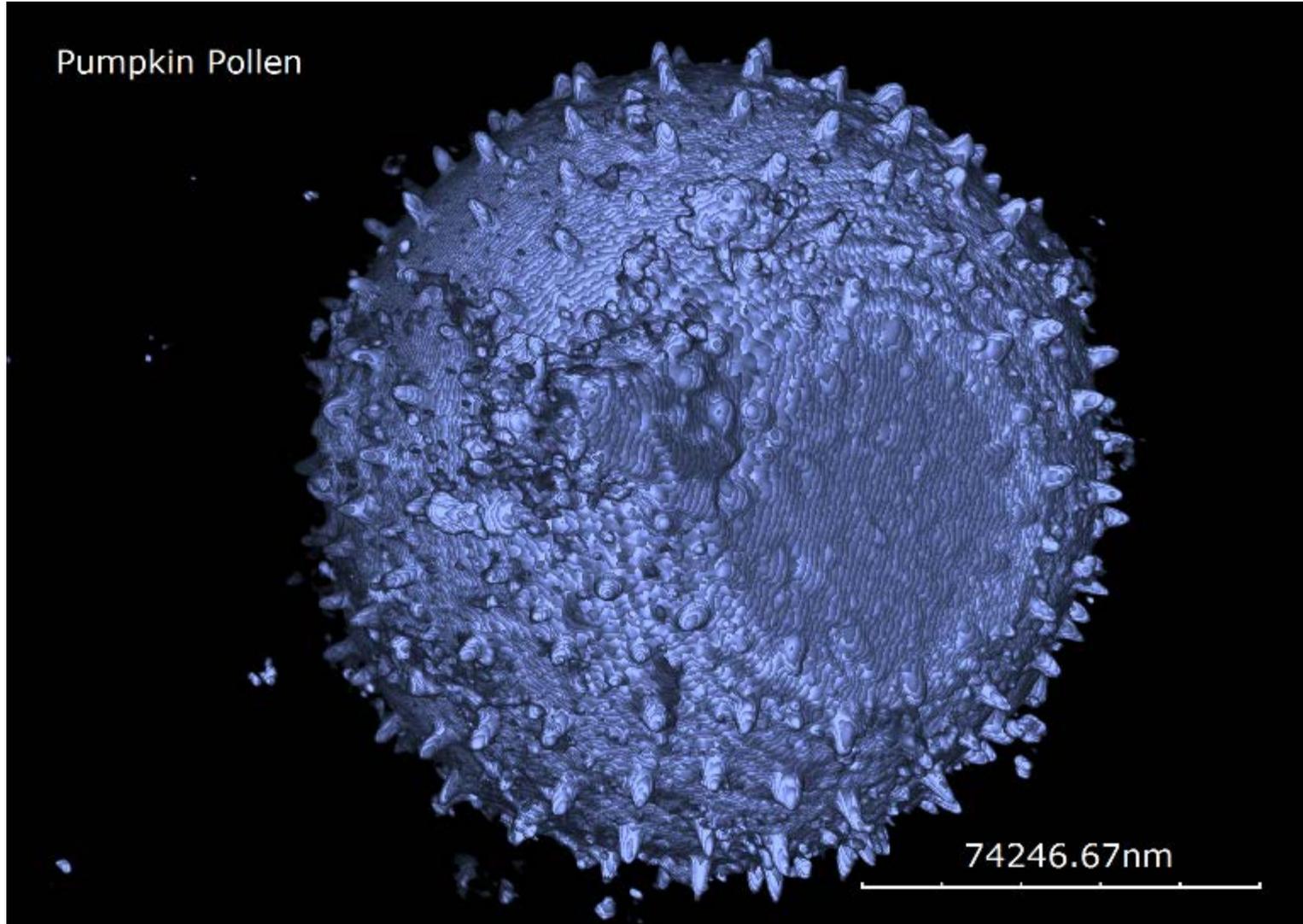
2D Pine Pollen Image



Tahr Ovary Epithelium Cells



Pumpkin Pollen 3D Confocal Image



Confocal Plane Animation

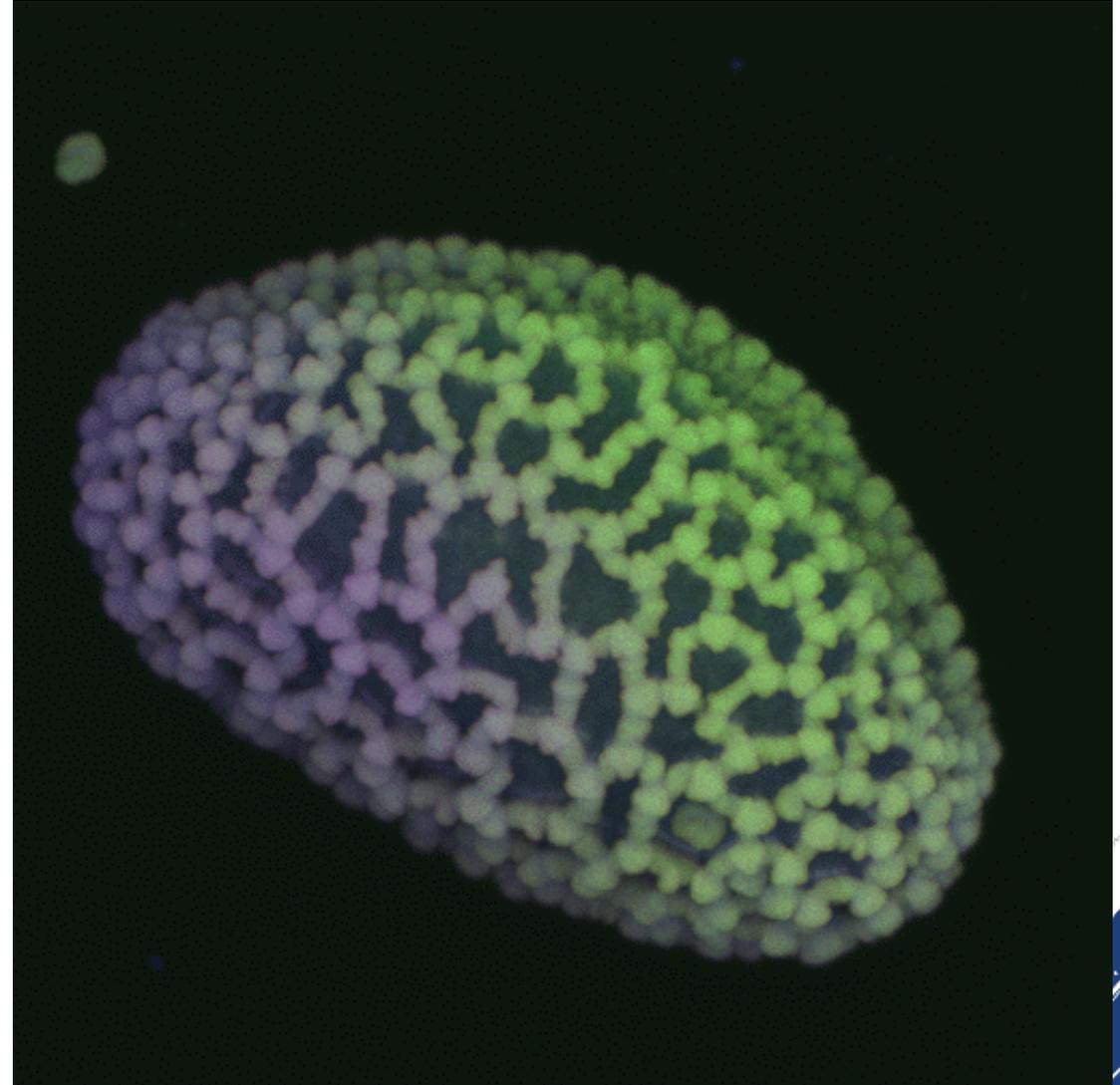
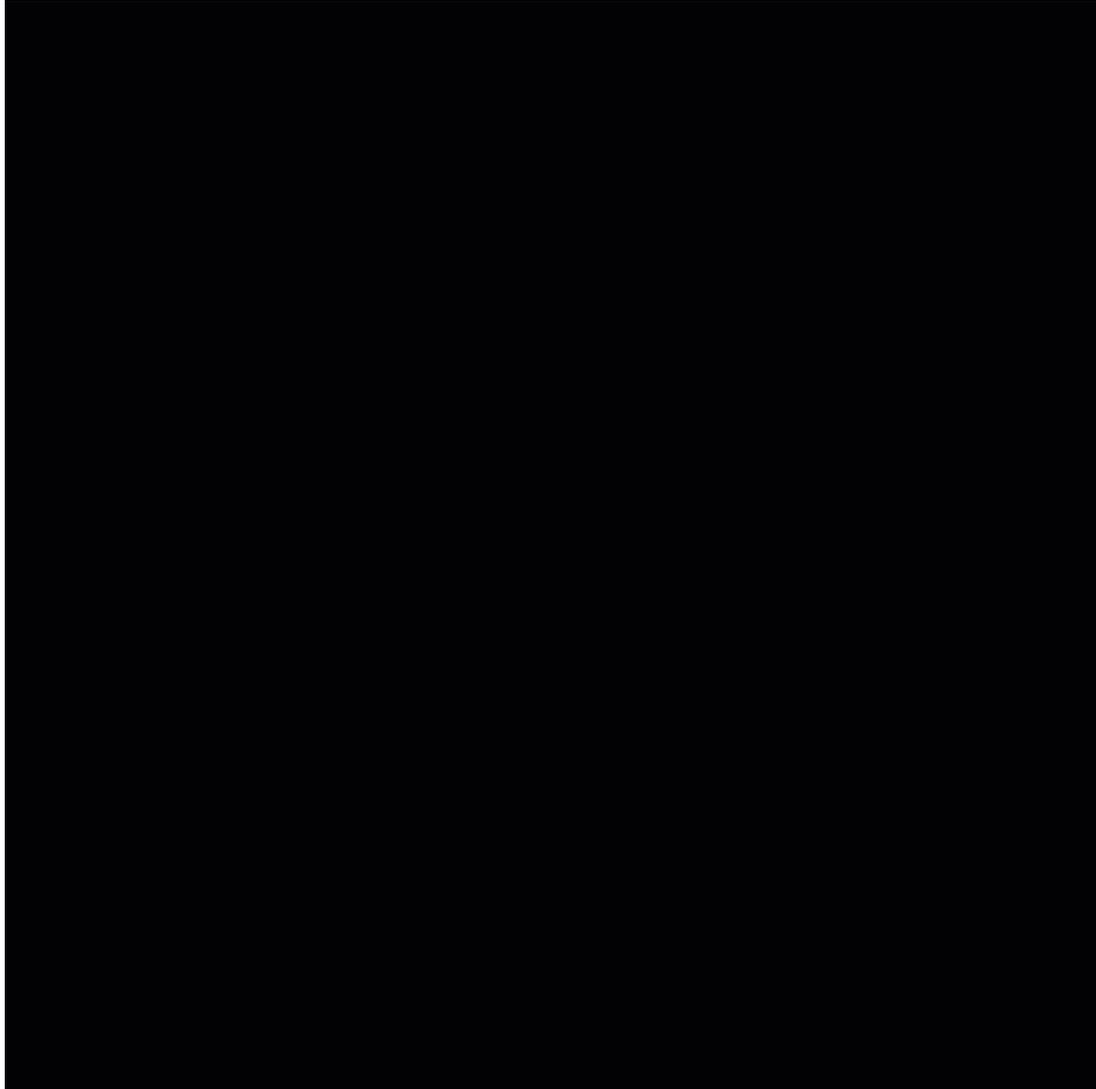
Insert Slide 23 Video_1.avi

Insert Slide 23 Video_2.avi



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Confocal Plane Animation



Thanks! Please keep in touch

#teachnano

Email Peter: peter.kazarinoff@pcc.edu

