

# BIOC 053: Super Resolution Microscopy

Super Resolution Microscopy represents a group of recently developed light microscopic techniques that are able to exceed diffraction-limited resolution (less than 200nm). This course will focus on three types of Super Resolution Microscopy: Structured Illumination Microscopy (SIM); Stochastic Optical Reconstruction Microscopy (STORM); and, Stimulated Emission Depletion (STED). In addition, students will be exposed to cutting-edge super resolution microscopes developed at HHMI Janelia Research Center through the AIC (Advanced Imaging Center). The AIC will showcase several instruments, including iPALM, lattice light sheet and live-cell TIRF-SIM. The course is designed for cell biologists with prior experience in light microscopy who wish to add super resolution microscopy to their research portfolio. Participants will acquire both a theoretical understanding of super resolution microscopy and practical experience using state-of-the-art super resolution microscopes.

**Credits:** 4

**Class Type:** Workshop

**Program:** Biochemistry, Chemistry, Pharmacology, and Toxicology