

The ***Blatt Bioimaging*** center houses a Zeiss laser scanning microscope (LSM 710), a Zeiss LSM with Airyscan (980) that is fully equipped with an environmental chamber with heating, CO₂, and humidity control points, and a Zeiss Axio Observer.Z1. Both LSM systems and Axio Observer are equipped with a 10x dry, 20x multi-immersion, 40x water, and 63x oil objectives. These microscopes are Directed by Heidi Hehnlly (Associate Professor, Biology) and manager (Michael Bates). Equipment to be incorporated to the Blatt Bioimaging center currently in Hehnlly lab includes a Leica Deconvolution system with X-LightV2 spinning disk confocal equipped with a 7-line laser launch, photo-kinetics unit with a 405nm and 355nm pulsed laser, heated Oxo Lab environmental chamber with CO₂ control, and automated stage for live cell imaging studies. It is equipped 20x dry, 25x water, 60x oil, 63x glycerol, 40x water, and 100x oil objective lenses, DIC, a CMOS camera, a Photometrics cMOS with 95% QE, and DAPI, CFP, GFP, YFP, TRITC, mCherry, and CY5 fluorescence filters. A Leica SP8 laser scanning confocal with digital-light-sheet technology with Leica's deconvolution software. This scope has a 405, 488, 552, and 638nm laser lines. It is equipped with 10x dry, 40x water, and 63x Glycerol objectives and an Oxo Lab environmental chamber with CO₂ control. In addition to the two confocal systems, The Hehnlly lab has two automated fluorescent stereomicroscopes (Leica Thunder Imager Model Organism) that allows for fast and easy 3D exploration of whole organisms available for use upon request. These systems are coupled to CellTram manual microinjectors for embryo manipulation while imaging. A workstation with Leica, Zeiss (Zen), Imaris, FIJI/ImageJ, and Prism software is available adjacent to the dedicated imaging rooms.