

Cellular Imaging

Research Administration
Seattle, WA • 501(c)(3) Nonprofit



Fred Hutch's Shared Resources are catalysts for lifesaving discoveries. This uniquely centralized program of 15 specialized core facilities and scientific services drives advances by integrating dedicated experts and cutting-edge technologies across the entire research pipeline, from basic science to clinical trial.

Molecular Devices ImageXpress

High-content reader

Excitation sources

- LEDs

Objectives

- 4x, 10x, 20x, 40x

Cameras

- Andor sCMOS, 16-bit

Capabilities

- Four-channel (blue, green, red, far red) fluorescence imaging
- Transmitted light imaging
- Fully automated operation
- Automated plate loading
- High throughput
- High-content image analysis with dedicated image analysis software

Recommended uses

- Automated imaging and analysis of microplates for image-based plate screening.

General information

The Molecular Devices ImageXpress is a dedicated microscope for the automated imaging and analysis of samples in multi-well plate format, and it is specifically designed for high content analysis and for image-based screening applications. The system includes trays that can accept up to 45 multi-well plates, an automated incubator, and a robotic arm and automation software for unattended sample loading and imaging. The system also includes a server with 24 TB of data storage and the MetaXpress high-content image analysis suite. This analysis suite includes applications allowing a variety of analysis routines, including nuclear translocation, cell scoring, measurements of fluorescence intensity over time and cellular morphology. The instrument is primarily designed for the imaging of fluorescent samples (blue, green, red and far red channels), but it is also capable of collecting transmitted light images. The system is equipped with an environmental module to provide controlled temperature time-lapse experiments with live cells. Please contact the Cellular Imaging shared resource for a list of compatible plates.

LEARN MORE

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Specifications

- Five-color LED light engine (386, 485, 549, 572, and 650 nm) for fluorescence excitation
- Filter sets for DAPI, FITC, TRITC, Texas Red and Cy5 (blue, green, red and far red dyes)
- 4x, 10x, 20x and 40x magnification
- High-resolution and long working distance objectives available

FILTER	EXCITATION	EMISSION
DAPI	400/40	447/60
FITC	470/60	536/40
TRITC	520/60	593/40
TexasRed	570/80	624/40
Cy5	635/50	692/40