

The UCLA-CTSI provides many state of the art technology cores and specialized service cores available to investigators. The technology core described below is available at Lundquist/Harbor-UCLA. Applications for utilization of these resources are reviewed by the Scientific Advisory Committee of the UCLA-CTSI at Lundquist/Harbor-UCLA. Support for investigators using this core is provided through a voucher system. Please contact the UCLA-CTSI office at 310-222-2503.

BIOIMAGING AND IMMUNOTHERAPEUTICS RESEARCH CORE

Description

There are five major instruments available in the Immunotherapeutics Research Core:

- BD Calibur flow cytometer facility** is housed in the Division of Adult Infectious Diseases at Lundquist/Harbor-UCLA Medical Center. It employs a dual-laser (argon and helium-neon), 4-color FACS Calibur flow cytometer and cell sorter. This instrument was awarded to the Division of Infectious disease at The Lundquist Institute through a NIH Shared Instrument grant. Fluorescence-activated cell sorting (FACS) is a powerful tool by which individual cells or populations of cells can be examined and compared using specific fluorescent probes. The cell sorter allows isolation and capture of individual cells or cell-cell complexes that exhibit desirable or unique characteristics as determined by fluorescence properties. Therefore, complementary flow cytometry and cell sorting capabilities of the instrument facilitate the molecular and physiological examination of individual cells, and enables collection of living cells for further study. Dr. Michael Yeaman (PI) and Dr. Scott Filler (Co-I) are the facility directors, and they or their technicians are available by appointment to advise and oversee user training and use of this instrument for specific projects. Users supply their own specific reagents, with instrument and technician time available on a recharge basis. There is re-charge for use of this service.

Recharge Rates

Assistance recharge rate	\$95.00/hour
Non-assistance recharge rate	\$60.00/hour

Please contact Michael Yeaman PhD for use of the Flow Cytometer (MRYeaman@ucla.edu).

- IVIS Lumina II system** is a high-sensitivity, in vivo imaging technology platform that enables noninvasive visualization and tracking of cellular and genetic activity within a living organism in real time. This equipment provides both bioluminescent and fluorescent capacity for in vivo imaging. It has multi animal (up to five mice) imaging capacity, and it contains four emission filters, including GFP, RsRed, Cy5.5 and ICG. Besides the live animals, this equipment can also be used to detect signals from tissue, petri dishes and micro titer plates. This equipment is an outstanding tool for both in vivo and in vitro studies. The software (live imaging 4.2) has the capacity for quantification image data analysis. This is the core facility for Lundquist/Harbor-UCLA campus. And core equipment manager Mr. Ming Gong is available by appointment to training new users. There are recharging rates for both training and equipment usage.

Recharge Rates

CTSI Investigator	\$115.00/hour
Outside commercial	\$190.00/hour
Outside academic	\$130.00/hour
Initial training fee	\$300.00/hour

Please contact Ming Gong (mgong@lundquist.org; 310-222-8178) for IVIS usage. This platform is located in Room 12 in RB2 annex.

- **Luminex multiplex analyzer**, utilizing xMAP microsphere technology. This instrument is capable of performing up to 100 assays simultaneously in a single well of a microtiter plate. Based upon the principles of flow cytometry, the Luminex system is a compact, easy-to-use system that gives sensitive, reproducible results with high-throughput speed. The technology can be readily applied to protein expression, including a diverse array of cytokine, growth factor, transcription factor, and biomarker assays.

Academic Recharge Rates	Price:
Unassisted Luminex Usage	\$30.00 / hour

Please contact Norma Solis (nsolis@lundquist.org; 310-222-6427) for Luminex usage.

- **Biotek Synergy 2 / H1M multi-mode microplate reader**. These two versatile instrument are a combination luminometer-fluorometer-absorbance detector capable of reading 96-well and larger plates. It utilizes both filter-based and monochromator-based light-detection technology, resulting in high performance, speed, and sensitivity. Among the numerous assays employed by users of this machine include Fluorescence Intensity, Time Resolved Fluorescence, Fluorescence Polarization, Glow and Flash Luminescence, UV-Vis Absorbance, FRET, and spectral scanning.

Academic Recharge Rates	Price: free
Outside academic	\$5.00 / plate

Please contact Ming Gong (mgong@lundquist.org; 310-222-8178) for the proper training before you apply your samples. This platform is located in Room 279 at MRL BLDG (synergy 2) and Room 164 at Walter Martin BLDG (H1M).

Contact Information

Email address(s): MRYeaman@ucla.edu (for Flow) / (mgong@lundquist.org (for IVIS) / nsolis@lundquist.org (for Luminex)

Phone number(s): 310-222-6248 (for Flow) / 310-222-8178 (for IVIS) / 310-222-6427 (for Luminex)