



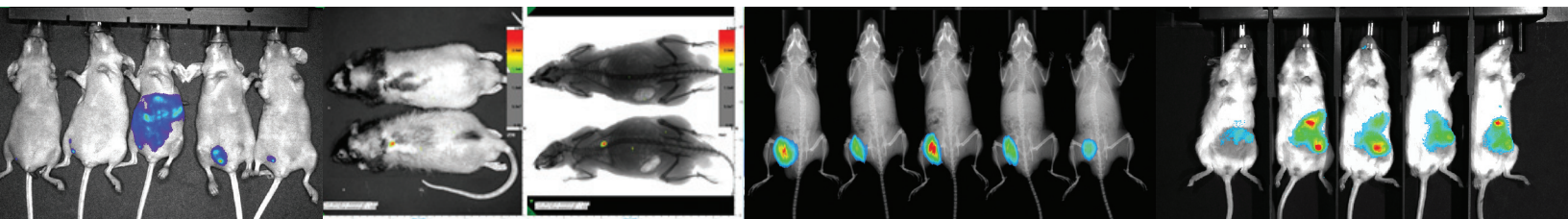
imaging reimagined



- Most Comprehensive and Versatile Imaging System
- Reliable, Upgradeable
- 10-mouse Capacity
- Ultra-high Sensitivity
- Bioluminescence
- Fluorescence
- X-ray

The Lago

Imaging Without Compromise



High Throughput and Greater Sensitivity

Best-in-Class Imaging

ABOUT

The Lago and X-ray capable Lago X optical imaging systems provide a powerful and flexible in vivo imaging capability suitable for imaging cores, specialist researchers and small teams, delivering an unmatched 10 mouse capacity across BLI, FLI and X-ray.

Using Lago and Lago X, researchers in pharma, academia, biotech as well as global CROs can conduct optical imaging system for studying small animal disease model progression, response to therapy, and cell migration in-vivo. The Lago and Lago X acquire quantitative images from a diverse set of applications including well plates, plants and small animals.

IMAGING

The imaging system contains a high performance cooled CCD camera to record the image collected by a large aperture lens with automation for filter and field of view selection. Luminescence, fluorescence, and X-ray modalities are combined into the system utilizing the latest technologies.

ULTRA HIGH SENSITIVITY

The cutting edge patented LED based illumination and Faint Signal detection provide unprecedented power and previously unattained sensitivity for FLI and BLI. The Lago and Lago X are also well suited where early detection and marking disease progression is of value.

FIELD OF VIEW (FOV) & THROUGHPUT

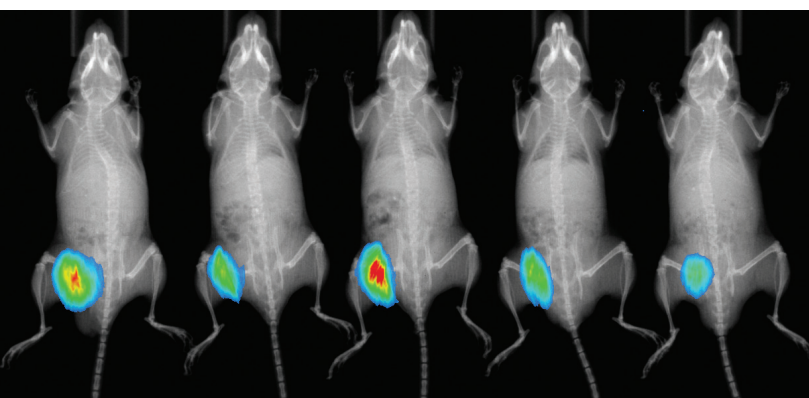
The Lago and Lago X come equipped for the largest native field of view (FOV) on the market based on comparable products from other vendors (for example – the IVIS® Spectrum). In fact the Lago and Lago X provides an industry leading 25 cm x 25 cm field of view (FOV) for BLI and FLI. In addition the Lago X provides a 25cm x 22cm FOV for X-ray.

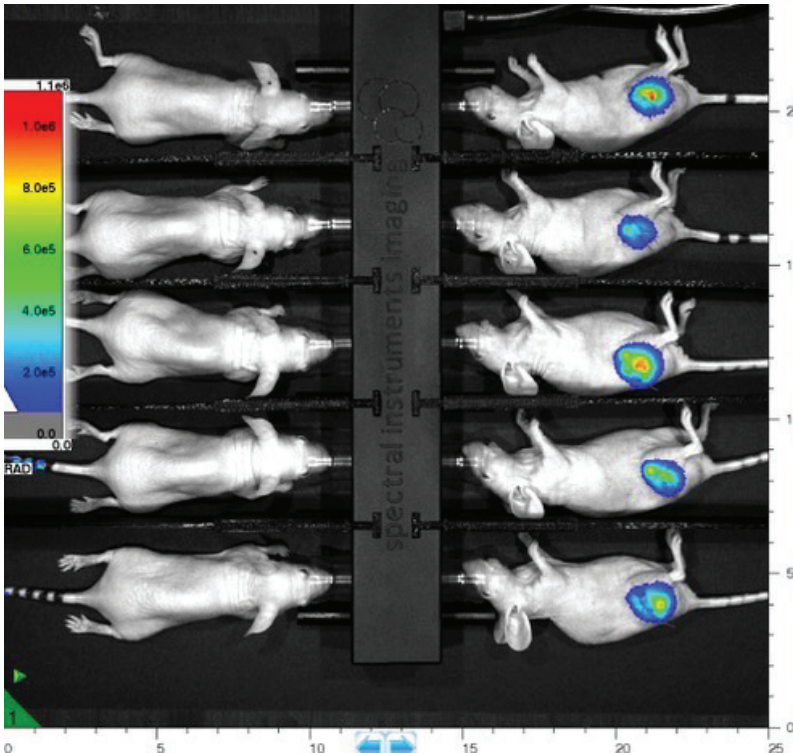
This enables the Lago and Lago X to provide an unprecedented and unmatched 10 mouse capacity across BLI, FLI and X-ray. Thus Lago and Lago X are able to deliver unprecedented High Throughput capability for in-vivo studies that require large sample sizes.

RELIABLE, UPGRADEABLE

The Lago and Lago X imaging systems are designed from the ground up using precision 3rd generation components to provide a stable, high quality package for optical preclinical imaging. When deployed in redundant configurations, the Lago and Lago X provide nearly non-stop round the clock capabilities for high workload imaging cores.

The Lago and Lago X are Absolutely Calibrated and come equipped with a solid state air-cooled camera and state of the high performance imaging capabilities. The Lago is field upgradeable for X-ray to the same spec as the Lago X. And like the Ami the Lago can also be ordered with an available Access Port or have it added in the lab at a later date. This allows teams to procure within initial spend limits and upgrade as future demand and budgets.



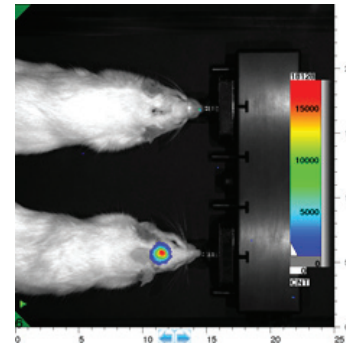


Sharon S. Hori, Sheen-Woo Lee, Sanjiv Sam Gambhir (Canary Center at Stanford, Stanford University School of Medicine)

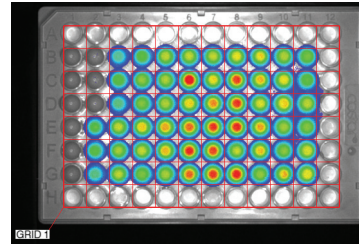
Best in Class*

- **Throughput**
10 mouse capacity across BLI, FLI and X-ray
- **High Sensitivity, Early Detection – Patented Technology**
Minimum Detectable Radiance is 45 photons/sec/cm²/sr (36% more sensitivity than the IVIS® Spectrum)
- **Field of View**
25 cm x 25 cm field of view (FOV) for BLI and FLI, X-ray FOV is 25 cm x 22 cm
- **Illumination Intensity (on specimen)**
Up to 100X more Light Intensity than other instruments
- **Aura Image Analysis Software**
Free unlimited licenses. Also reads Living Image® files! Supports Spectral Un-mixing.
- **Background Signal**
High Performance -90° C Absolute Camera
- **Absolute Calibration**
NIST Traceable absolute calibrations
- **High Reliability**
Redundant systems, Leak-free Solid State Cooling,
- **Efficient Operations**
Initial Install time < 1 hour, Start Time < 10 minutes, Field Upgradeable - for X-ray, Access Port

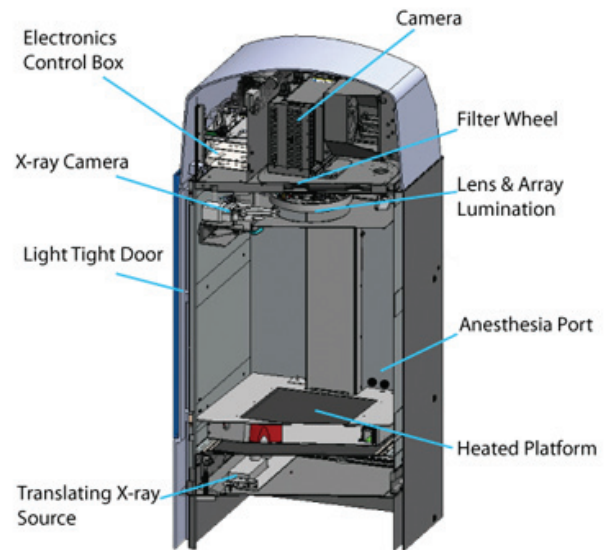
* Compare with IVIS® Spectrum



Two Rats: Bioluminescence image surgical resection: Courtesy of University of Arizona



Bioluminescence 96 Well Plate: Courtesy of TD2



Filters

- Fourteen Fluorescence Excitation LED's Wavelengths of 360, 405, 430, 465, 500, 535, 570, 605, 640, 675, 710, 745, 770 and 805nm are standard for excitation of fluorescence species
- Twenty Emission Filters for Fluorescence and Luminescence Imaging Wavelengths of 490, 510, 530, 550, 570, 590, 610, 630, 650, 670, 690, 710, 730, 750, 770, 790, 810, 830, 850, and 870nm
- Custom filters, including for Plant Imaging available upon request.

Specifications



Modalities	Bioluminescence, Fluorescence, Cerenkov, X-ray, more...
Mouse/Animal Capacity-BLI, FLI	10 mice, 2 rats (included manifold)
Mouse/Animal Capacity-X-ray	10 mice, 2 rats (included manifold)
Calibration	Absolute, NIST Traceable
Camera Sensor	Back-illuminated, cooled CCD sensor
Pixel Dimensions	2048x2048
High Performance CCD Size	27.6 x 27.6mm
Quantum Efficiency	>85% from 500-700nm, >30% from 400-850nm
CCD Operating Temperature	-90°C Absolute, air cooled
Dark Current	<0.00009 e ⁻ /pixel/s*
Minimum Detectable Radiance	45 photons/sec/cm ² /sr
Binning	1x1, 2x2, 4x4, 8x8, 16x16
Lens	50mm, max aperture f/1.2, min f/16
Read Noise	2.5 e ^{**}
Imaging Field of View (FOV)	25x25cm to 6x6cm (5 stops)
Fluorescence Excitation LED's	14 from 360nm to 850nm
Fluorescence Emission Filter Slots	20
Fluorescence Emission Filters Available	20 from 490nm to 870nm
Custom Filters	Available on Request (for Plants too)
X-ray Source (Lago X)	10-50 keV
X-ray Camera (Lago X)	Line scanning imager
X-ray Field of View (Lago X)	25 x 22cm
Space Requirements	56cm wide, 66cm deep, 211 cm high
System Internal Dimension	Imaging platform is 50x34cm
Heated Imaging Platform	Standard Feature
Gas Anesthesia	Inlet & Outlet Ports
Access Port	Yes
Field Upgrade Access Port	Yes
Field Upgrade X-ray	Yes
Cooling Type	Solid State - No Leaks
Acquisition Hardware	Included PC with Monitor
Acquisition Software	Aura Software - unlimited free copies

*Typical, 0.0003 e⁻/pixel/s maximum. **Typical, 3.0 e maximum.

"The throughput of the instruments was significantly greater than that of the closest comparable alternative. In fact, the system's outstanding reliability was only exceeded by SII's total commitment to system uptime and availability. SII application and support teams were proactive and available - over the phone or, just as readily, in person when needed." -

David M Colcher, Ph.D.,
City of Hope
 Professor of Molecular Immunology



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