

AMI HTX

In Vivo, Optimized



IN VIVO, OPTIMIZED

Best-in-class Performance



29% More Sensitive

When comparing minimum detectable radiance for bioluminescence to the leading competitor in its class



Patented LED Illumination

100x more light on target gives you a stronger fluorescence signal with minimal background for superior quantitation



BLI · FLI · X-ray

Advanced preclinical optical imaging: Bioluminescence, Fluorescence & X-ray



5 Mouse Capacity

High efficiency *In vivo* imaging now available on your benchtop



License Free Software

Aura Imaging Software is a robust analysis tool available for PC & Mac users
Import legacy Living Image files

RAISING THE BAR

Absolute -90°C Air-Cooled Camera

No Liquids • No Chillers • No Leaks
Reliable & ready to use in 5 minutes.

Access Port

Light tight access port for external systems connections *Field Upgradable.

Vertical Door

Saves bench space & reduces waste anesthesia gas exposure.

Patented LED Fluorescence Excitation

High intensity light source generates 100x more light on target. Individual LED colors/wavelengths are used to improve specificity & reduce background.

Anesthesia

Compatible with third party systems.

Animal Friendly Heated Platform

Unique materials and convection method produce even heating & uniform temperature for improved animal comfort & reliable enzyme kinetics.

Automated, X-ray Source

Enables rapid acquisition of X-ray images. Maintains Specimen numbers between optical & X-ray. *Field Upgradable

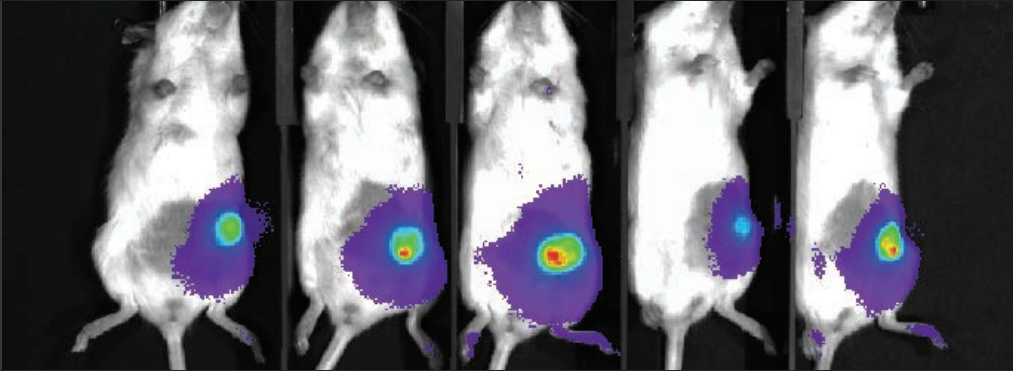
Patented Steel Construction

Innovative light tight cabinet - Designed without parts that can wear over time & compromise data quality.

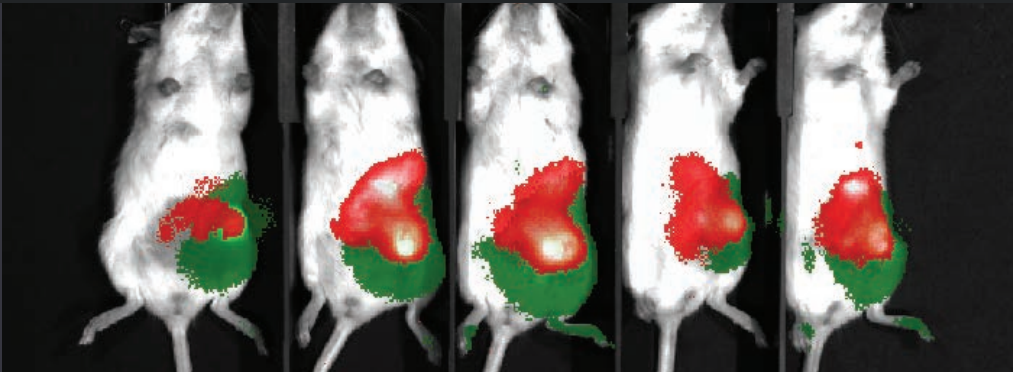


BUILT FOR YOUR LIFE'S WORK

BLI



FLI



X-RAY

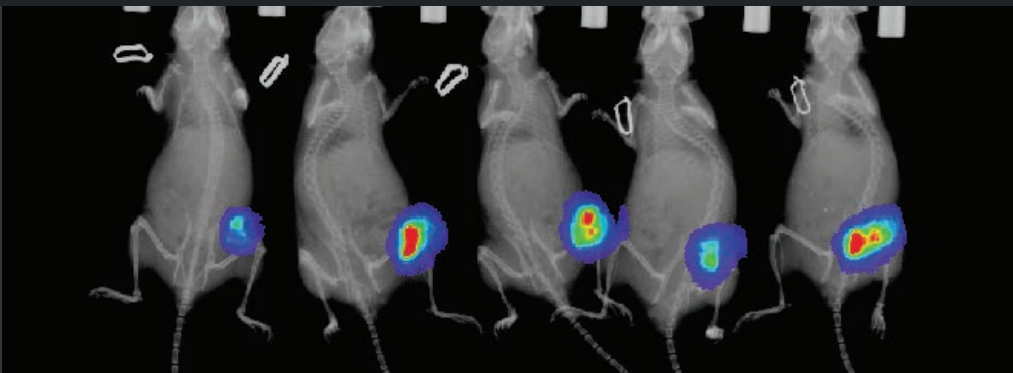


Image 5 Mice

25cm x 17cm FOV

Optimized sensor size
Ideal for imaging 5 mice

We have used our Ami HTX intensively for the past four years and have been extremely pleased with the sensitivity and reliability of this instrument, both for NIR fluorescence & bioluminescence capture. Operation is very simple and the system needs almost no maintenance at all. On top of this, technical support is easy to reach and quick to reply with solutions for general use and technical questions.

BETTER FLUORESCENCE EXPERIENCE



Patented LED Technology

High intensity fluorescent excitation source results in stronger signals - with less background for Superior Signal-to-Noise & earlier detection.



100x more light on target

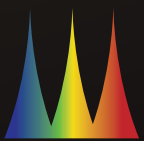
*than traditional white light sources

LEDs have a direct path to targets. No use of fiber optic cables that can contaminate & attenuate excitation light.



Stable & Linear Excitation Light

Long life LED's - Rated for 100,000 hrs of imaging. Lasts 1000x longer than tungsten bulbs, never fading or compromising your data. Fine tune adjustable power of every LED. No warm up time.



Flexibility Across the Spectra

10 excitation LED's | 10 emission filters of your choice with custom options available. Additional filters can be changed by operator if needed.

We have found the NIR fluorescence to be of high sensitivity with the ability to differentiate signals at 680nm, 715nm, 750nm, and 800nm.

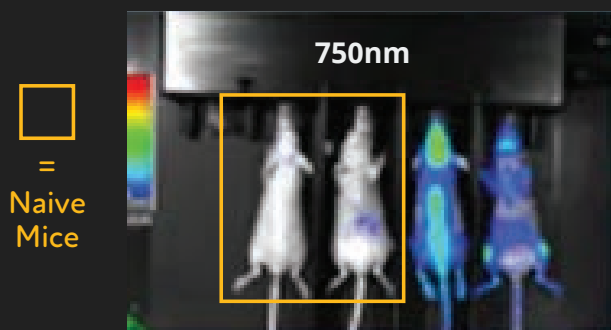
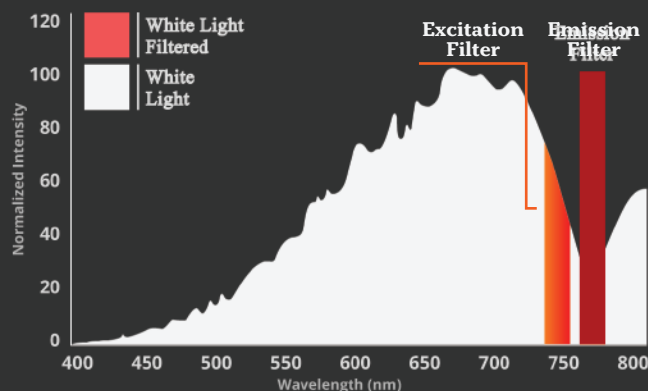
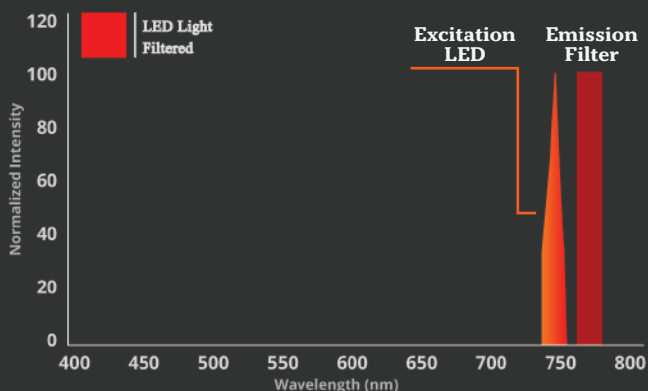
Multiplex FLI: GFP & ProSense 750

SPECIFICITY IN EXCITATION

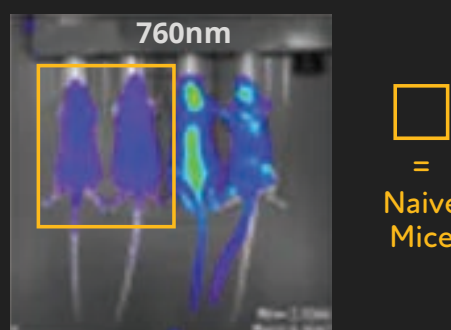
Spectral Instruments Imaging
Uses Highly Specific LED Light

VS

Leading Market Competitor
Uses Broad Diffuse White Light



Courtesy of Dr. Timothy Doyle, Molecular Imaging Program at Stanford, Dept. of Pediatrics, School Of Medicine, Stanford University.



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An array of narrow-spectrum LEDs produces precisely defined excitation light across the visible light spectrum.

High photon flux of a broad white light source overwhelms any one excite filter, causing the excitation light to be contaminated by out-of-band photons. This non-specific light reflects off mice, reducing Signal/Noise ratio.

The LED based illumination meant that there was nearly a 90X more light incident on the surface of the specimen versus traditional white lights used by other manufacturers which translates to earlier detection – sometimes weeks ahead – saving researchers time and money. It also dramatically improved the utilization of the imaging core.

ROBUST & RELIABLE WORKHORSE



Spectral Instruments' novel Solid State Air-Cooled Cameras

Provide ultra cold absolute -90°C cooling without the use of liquids or gas for support which guarantees *No Leaks!*



Less pieces & parts to break

Built without limit switches or other dated parts prone to failure. Innovative light tight cabinet with interlocking greek keyed steel avoids gaskets that crack & degrade over time. Vertical door to save space & minimize isoflurane exposure.



Factory Calibrated

All instruments are factory calibrated prior to shipment, allowing easy and quick installation. Factory calibrations last over the life of the instrument, maintaining high data quality.



Absolute Calibration

Ensures data accuracy regardless of changes in animal position or camera settings. Traceable to NIST standard.

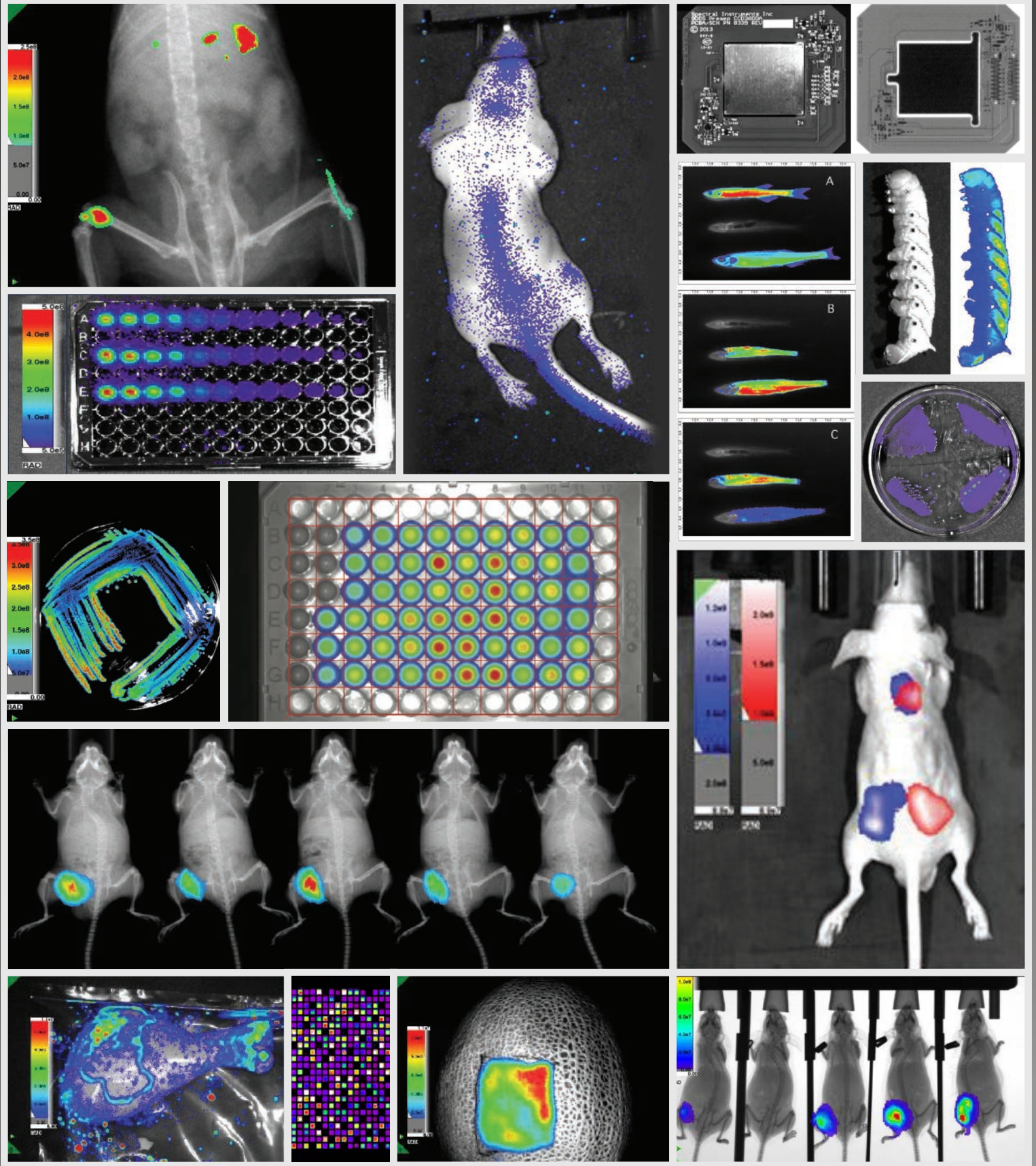
Made for Scientists, by Scientists

Spectral Instruments Imaging is the fusion of 2 principal developers of in vivo imaging technology & a world renown manufacturer of specialty detection systems.

Together, they represent 30 years of high-end optical design, numerous scientific publications & patents, & a singular dedication to preclinical optical imaging.



IMAGINE THE POSSIBILITIES



SELECTION GUIDE



Lago X

Lago

Ami HTX

Ami HT

Kino

	Lago X	Lago	Ami HTX	Ami HT	Kino
Ideal For:	High Capacity Imaging Cores, BioPharma		Animal Care Specialists, CROs		Small Startups
Bioluminescent Imaging (BLI)	✓	✓	✓	✓	✓
Fluorescent Imaging (FLI)	✓	✓	✓	✓	✓
X-ray	✓	Field Upgradeable	✓	Field Upgradeable	N/A
Mouse Capacity	10 Mice	10 Mice	5 Mice	5 Mice	3 Mice
Maximum Optical Field of View (cm)	25 x 25	25 x 25	25 x 17	25 x 17	12.5 x 12.5
Patented LED Excitation	✓	✓	✓	✓	✓
# of LED (Fluorescent) Excitation Wavelengths	14	14	10	10	10
Included LED Excitation Wavelengths	360, 405, 430, 465, 500, 535, 570, 605, 640, 675, 710, 745, 770, & 805nm		430, 465, 500, 535, 570, 605, 640, 675, 710, & 745nm		430, 465, 500, 535, 570, 605, 640, 675, 710, & 745nm
Fluorescent Emission Filters	20	20	10	10	5
Standard Emission Filter Choices:	490, 510, 530, 550, 570, 590, 610, 630, 650, 670, 690, 710, 730, 750, 770, 790, 810, 830, 850, & 870nm				
CCD -90°C Absolute Solid State Cooling	✓	✓	✓	✓	✓
Minimum Detectable Radiance	45 photons/sec/cm2/sr	45 photons/sec/cm2/sr	50 photons/sec/cm2/sr	50 photons/sec/cm2/sr	59 photons/sec/cm2/sr
Camera Sensor	1" back-illuminated Grade 1 plus CCD	1" back-illuminated Grade 1 plus CCD	1" back-illuminated Grade 1 plus CCD	1" back-illuminated Grade 1 plus CCD	.5" back-illuminated Grade 1 plus CCD
Pixel Dimensions	2048 x 2048	2048 x 2048	1152 x 770	1152 x 770	1024 x 1024
High Performance CCD Size	27.6 x 27.6mm	27.6 x 27.6mm	25.9 x 17.3mm	25.9 x 17.3mm	13mm x 13mm
Quantum Efficiency: >85% efficiency 500-700nm; >35% efficiency 700-900nm	✓	✓	✓	✓	✓
Dark Current	<49 e-/sec/cm ²	<49 e-/sec/cm ²	<49 e-/sec/cm ²	<49 e-/sec/cm ²	<100 e-/sec/cm ²
Binning	1x1,2x2,4x4,8x8,16x16	1x1,2x2,4x4,8x8,16x16	1x1,2x2,4x4,8x8	1x1,2x2,4x4,8x8	1x1,2x2,4x4,8x8
Lens	50mm, Aperture: f/1.2 - f/16	50mm, Aperture: f/1.2 - f/16	50mm, Aperture: f/1.2 - f/16	50mm, Aperture: f/1.2 - f/16	50mm, Aperture: f/1.2 - f/16
Absolute Calibration, NIST Traceable	✓	✓	✓	✓	✓
X-ray Source	10-50keV	Field Upgradeable	10-40 keV	Field Upgradeable	N/A
X-ray Camera	Line scanning imager	Field Upgradeable	Line scanning imager	Field Upgradeable	N/A
X-ray Field of View	25x22cm	Field Upgradeable	25 x 15cm	Field Upgradeable	N/A
Heated Imaging Platform, 20-40c	✓	✓	✓	✓	✓
Inlet & Outlet Ports for Gas Anesthesia	✓	✓	✓	✓	✓
Light Tight Access Port (Field Upgradeable)	Optional	Optional	Optional	Optional	Optional
Space Requirements	56cm(w) x 66cm (d) x 211cm (h)	56cm(w) x 66cm (d) x 211cm (h)	56cm (w), 66cm (d), 122cm (h)	56cm (w), 66cm (d), 122cm (h)	56cm (w), 66cm (d), 122cm (h)
System Internal Dimension	Imaging platform: 50x34cm	Imaging platform: 50x34cm	Imaging platform: 50x34cm	Imaging platform: 50x34cm	Imaging platform: 50x34cm
PC, Monitor & Software Included	✓	✓	✓	✓	✓
Aura Analysis Software: License Free (MAC & PC)	✓	✓	✓	✓	✓