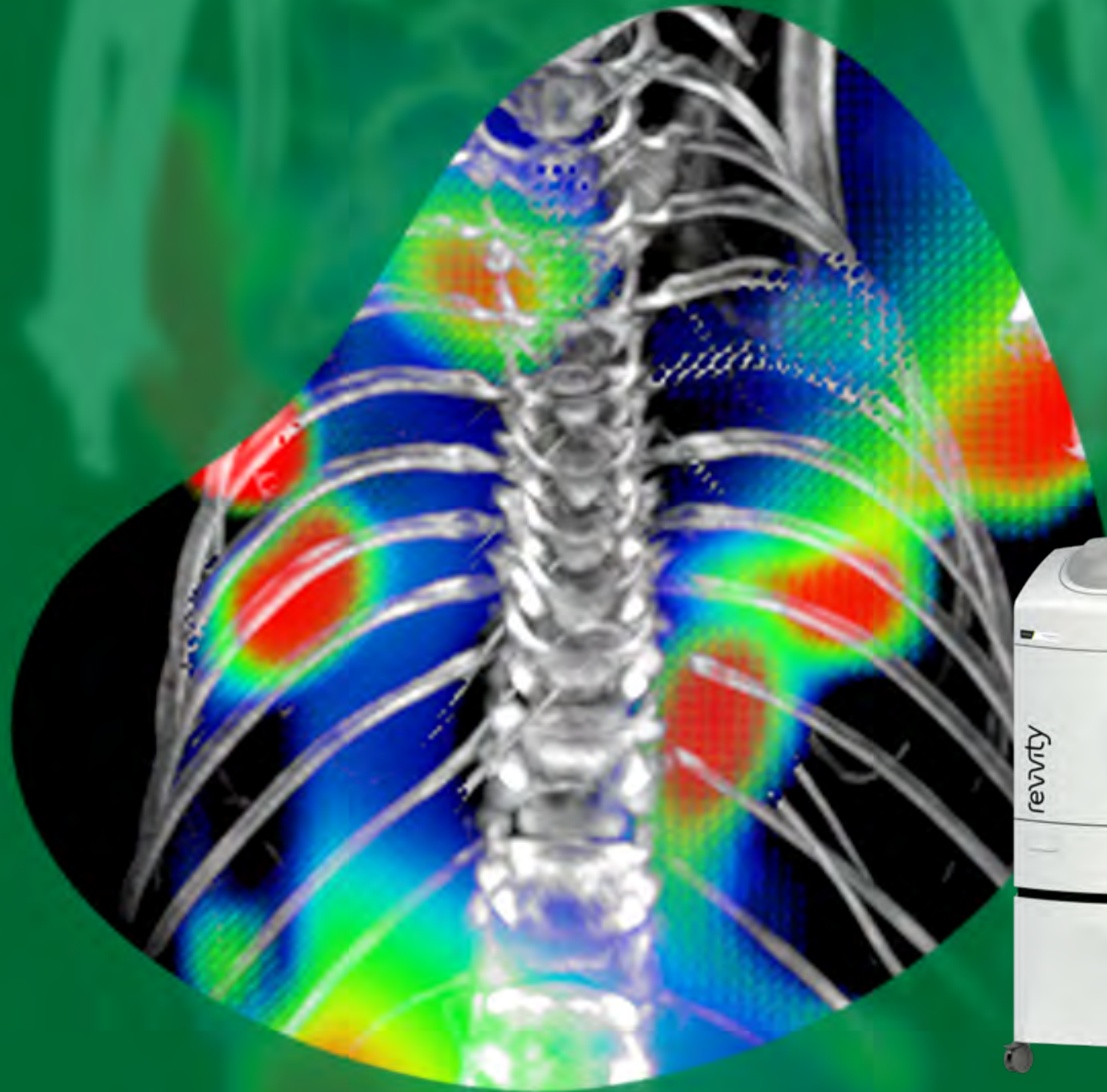


Illumination  
in focus.



revvity

IVIS® Spectrum 2 optical imaging platform



# See where discovery can take you.

Experience the next level in preclinical optical imaging with IVIS® Spectrum 2 and IVIS SpectrumCT 2\*.

The IVIS Spectrum 2 platform packs all the same features researchers have come to expect from our best-in-class IVIS systems such as 2D and 3D bioluminescence and fluorescence imaging - and more. See how you can better understand biological processes and bring new drug and treatments to market faster.

\*Optical with integrated microCT





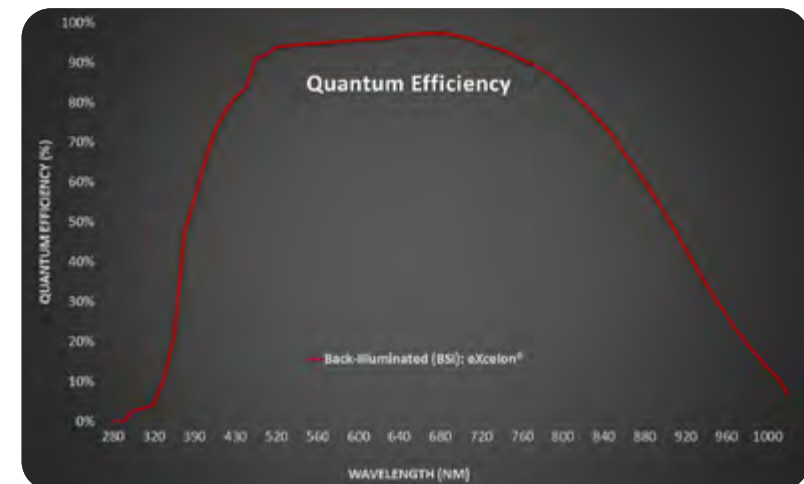
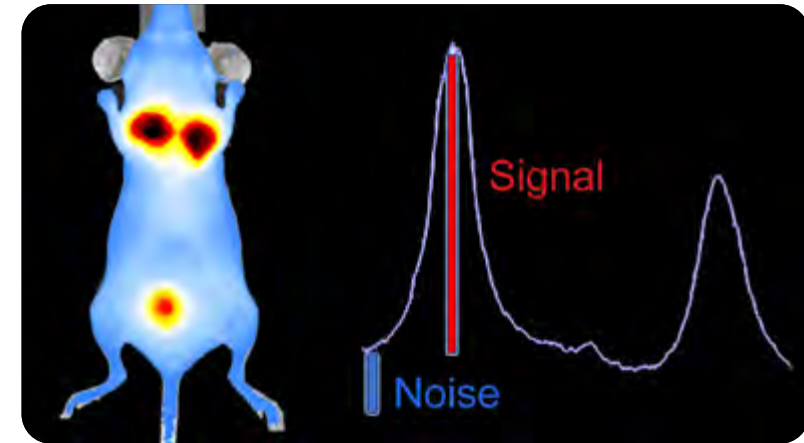
# Setting the standard in optical imaging.

In the world of basic research and drug discovery and development, obtaining accurate results is crucial. It is vital to have equipment that is capable of producing precise and reliable data.

Using a CCD camera with eXcelon® coating for *in vivo* imaging, the IVIS Spectrum 2 and IVIS SpectrumCT 2 offer advanced optical imaging with high sensitivity.

This patented coating increases the quantum efficiency facilitating detection of more signal at higher efficiency across a broader spectrum of wavelengths throughout the visible and NIR spectrum, which translates to:

- Improved signal-to-noise ratio for fluorescent and bioluminescent signals
- Increased bandwidth to encompass a wider range of NIR fluorescent probes

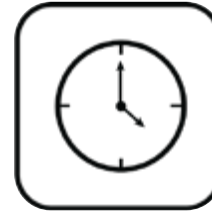


# Highlights of the IVIS Spectrum 2 platform



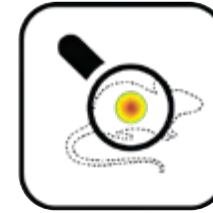
## High sensitivity

Patented CCD camera with eXcelon® coating enables high sensitivity imaging



## Rapid imaging

Fast data acquisition allows quick visualization of images in real-time



## Sharp imaging

High resolution (to 20 microns) with a minimum FOV of 3.9 cm



## 2D & 3D bioluminescence & fluorescence

State-of-the-art 2D imaging and 3D tomography



## High throughput

Standard 5 mice configuration or up to 10 mice capacity using optional manifold



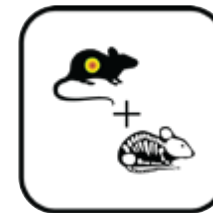
## Spectral unmixing

Remove autofluorescence or easily separate, visualize, and quantify multiplexed fluorescent signals



## Co-registration

Easy co-registration of optical data with the Quantum microCT system and other modalities, e.g., CT, MRI, SPECT, PET, Ultrasound



## Combined modalities

Optical imaging with integrated microCT enabling simultaneous functional and anatomical studies in a single system\*



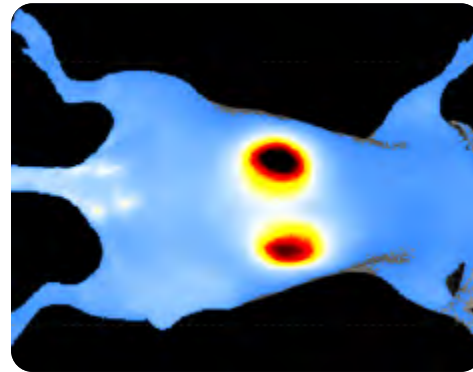
## Analysis software

Broadly adopted, easy to use, and intuitive, Living Image® visualization and analysis software

\*Available on IVIS SpectrumCT 2 only



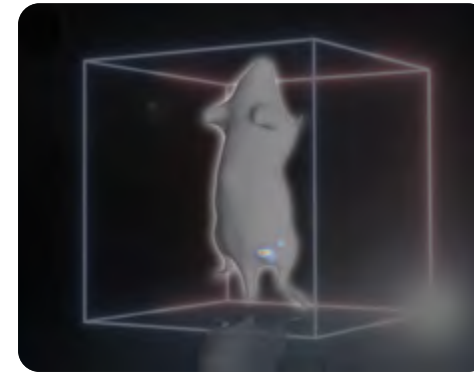
# Imaging from a leader you know and trust.



## 2D bioluminescence and fluorescence imaging

*In vivo* 2D optical imaging is a well-established and powerful tool used in many research labs to evaluate structure and function at the molecular level, non-invasively, longitudinally, and in real-time.

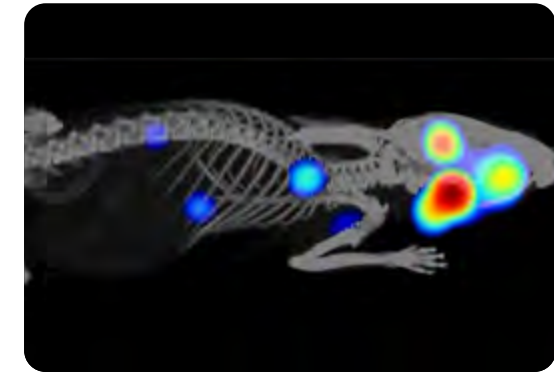
As the industry leader in optical imaging, our next generation IVIS Spectrum 2 platform enables best-in-class performance to take your research to an entirely new level of sophistication.



## Because everything is better in 3D

Biology doesn't happen in two dimensions (2D) - or in isolation - and biological targets, pathways, and processes studied are best understood in biological context. And we have the tools to take you there.

The IVIS Spectrum 2 platform builds upon our previous generation of leading optical tomography enabling 3-dimensional (3D) reconstructions of luminescent, fluorescent, and computed tomography with increased sensitivity.



## See the whole picture with multimodal imaging

Designed with multimodality in mind, the IVIS Spectrum 2 system offers 3D optical tomography capabilities that can be co-registered with imaging data from other functional and anatomical modalities such as MRI, CT, SPECT, ultrasound, or PET.

For ultimate ease and flexibility, the IVIS SpectrumCT 2 system incorporates all the features of the IVIS Spectrum 2 with the addition of integrated, low-dose CT, bringing together functional and anatomical imaging into a single system.





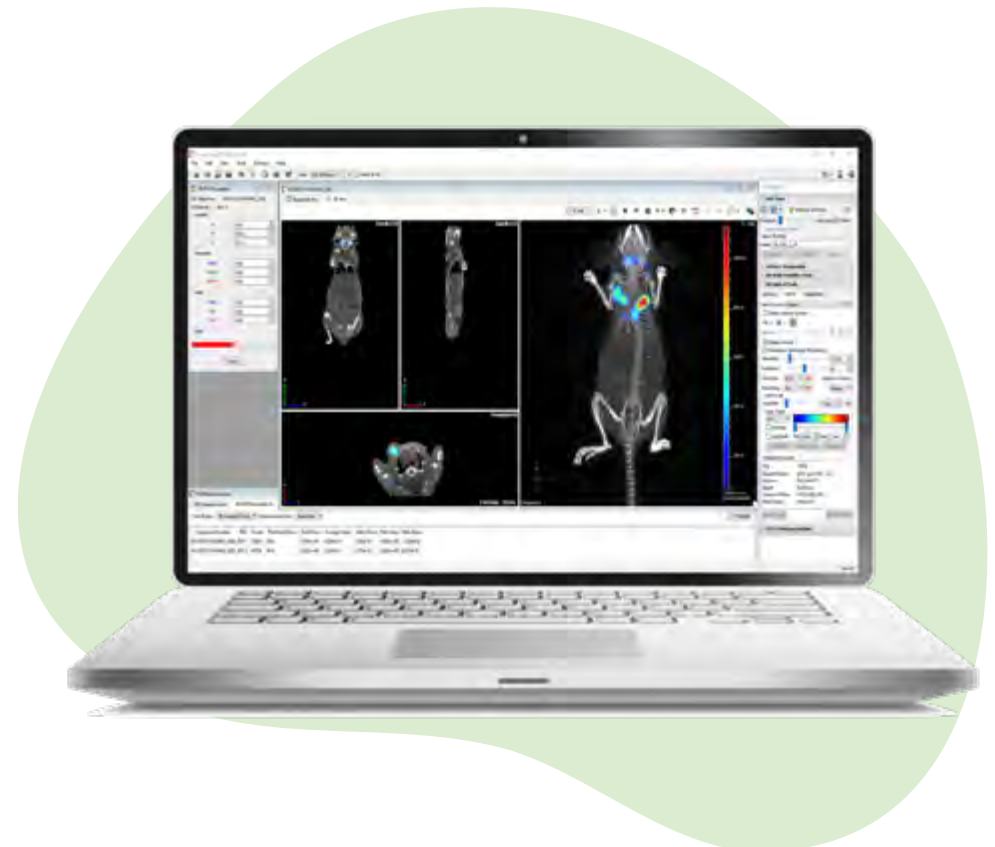
# Software that brings your IVIS images to life.

Designed for use with our IVIS optical imaging platform, Living Image® enables researchers to analyze 2D, 3D, and CT imaging data from your animal models with ease. With features such as wizard guidance for acquisition parameter setup and co-registration with other imaging modalities, Living Image allows you to seamlessly capture, visualize and analyze optical imaging data to facilitate your drug discovery and development and biology research.

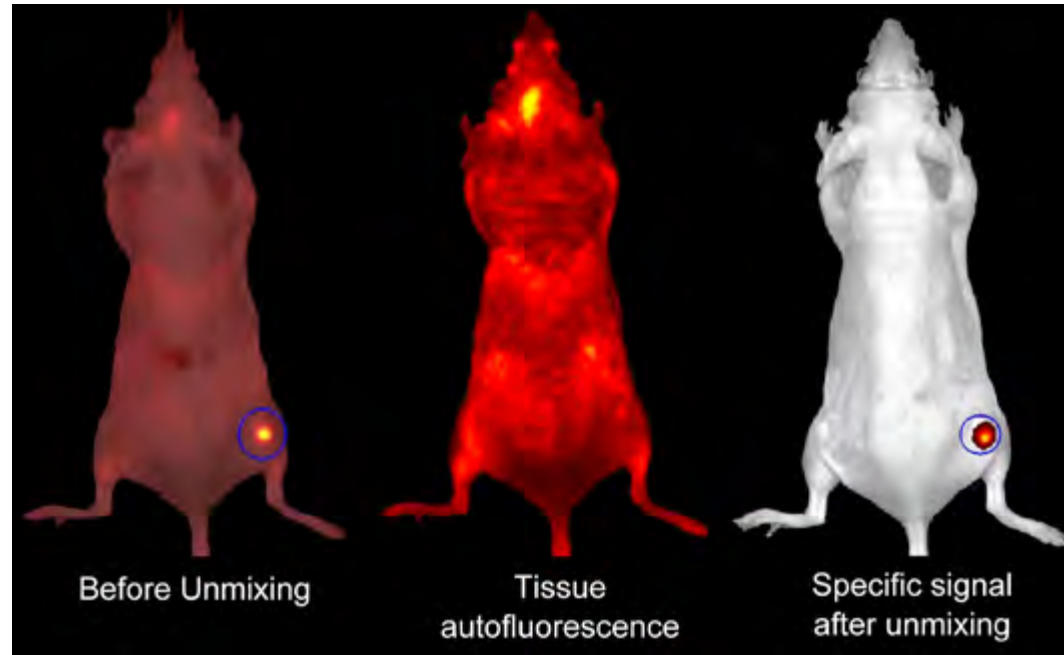
Included in your IVIS purchase, Living Image advanced *in vivo* imaging software simplifies even the most complex image acquisition and analysis of bioluminescent and fluorescent sources.

## Broadly adopted imaging software that sets the industry standard for ease of use and flexibility.

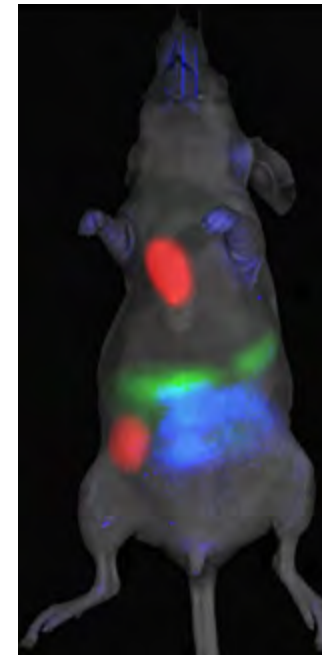
- Comprehensive set of tools for 2D and 3D data analysis
- One click 3D reconstructions
- Easily obtain and separate simultaneous fluorescent readouts or remove unwanted autofluorescence background with spectral unmixing
- Co-register optical imaging with other modalities (e.g., CT, MRI, PET)
- Auto settings for easy image acquisition
- Batch processing analysis tools
- Generation of animated movies and publication ready figures



### Autofluorescence removal



### Multiplexing simultaneous fluorescent readouts

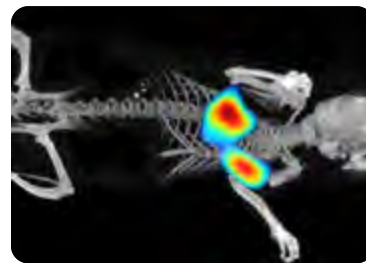


- Generation of animated movies and publication ready figures



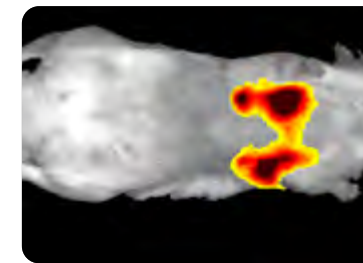
# Providing the versatility needed for a broad range of applications.

The IVIS Spectrum 2 and IVIS SpectrumCT 2 enables the flexibility needed to advance research in many disease areas.



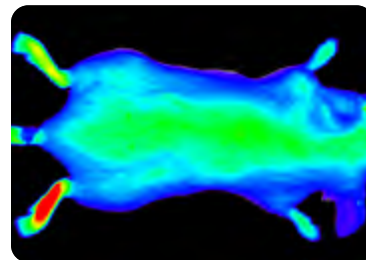
## Oncology

Visualize and quantify tumor growth and progression to better understand the biological pathways of cancer noninvasively and longitudinally.



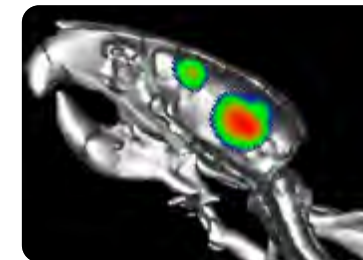
## Infectious disease

Evaluate host-pathogen interactions in the same animal over time to better understand and visualize pathogenic mechanisms of infection and help drive discovery and development of new antibiotics and vaccines.



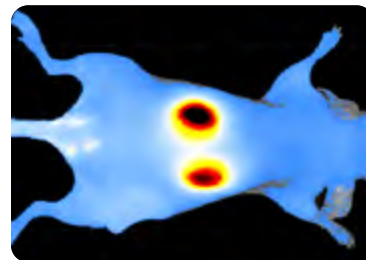
## Inflammation

Reveal information on inflammatory biomarkers, pathways, and cells from primary immune-mediated inflammatory diseases such as arthritis as well as other disease states, including cardiopulmonary disease, cancer, diabetes, and more.



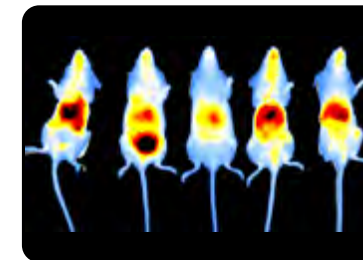
## Neuroscience

Uncover fundamental new insights on inflammatory, metabolic, vascular, and proteolytic responses to CNS injury and cancer and help evaluate events that trigger and propagate inflammatory neurological processes noninvasively and longitudinally.



## Drug safety & toxicology

Gain powerful insights into drug efficacy, biodistribution, toxicology, and therapeutic response in the context of the whole animal early in the drug development process.



## Metabolic disease

Better understand the biological effects of metabolic changes in diseases such as diabetes, obesity, nonalcoholic fatty liver disease (NAFLD), and nonalcoholic steatohepatitis (NASH).





# Strengthen your IVIS investment with accessories.



## Simultaneous delivery of anesthesia to multiple instruments

The RAS-4 Rodent Anesthesia System facilitates efficient gas distribution through four delivery circuits while minimizing excess gas exposure to lab personnel with active scavenging capabilities:

- Delivers anesthesia to two instruments, an induction chamber, and benchtop accessories simultaneously
- Vacuum system for active scavenging of isoflurane through imaging chamber manifolds and benchtop accessories
- Separate dedicated exhaust for induction chamber to prevent anesthesia exposure



## Easily transfer your subject between imaging modalities

The Mouse Imaging Shuttle enables subject to be transferred from the IVIS Spectrum 2 to the Quantum GX3 microCT instrument for seamless co-registration of 3D optical and CT images.

- Shuttle maintains mouse positioning for both scans
- Easily snaps into holders specially made for the IVIS Spectrum and Quantum GX3, respectively
- Software uses fiducial markers on the shuttle for automatic co-registration



## Increase your throughput

Improve your research and drug discovery workflow and reduce longitudinal imaging studies in half with simultaneous imaging of up to 10 mice using our optional manifold.



# Imaging solutions that accelerate answers.

Discover a comprehensive range of imaging systems & reagents designed to fit your research and development needs.



## 2D optical imaging

IVIS Lumina Series III platform  
IVIS Lumina 5 platform

- Benchtop 2D bioluminescence and fluorescence imaging
- Optional integrated x-ray



## 2D & 3D optical imaging

IVIS Spectrum 2 platform

- High sensitivity 2D and 3D bioluminescence and fluorescence imaging
- Optional integrated CT



## MicroCT imaging

Quantum GX3

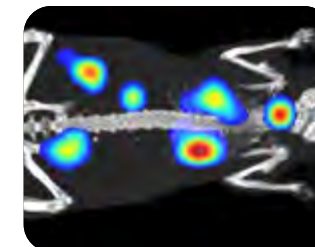
- High-resolution, fast, low-dose microCT for *ex vivo* biological samples and *in vivo* applications



## Ultrasound

Vega®

- Automated, hands-free, and high throughput
- Scan times in <1 minute
- Whole- body field of view



## Reagents

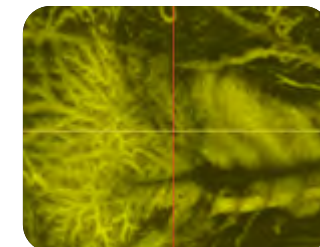
IVISbrite™

- Bioluminescent substrates, cells, and lentiviral particles



IVISense™

- Fluorescent probes, labels, and dyes



VesselVue®

- Microbubble contrast agents for vascular ultrasound imaging



# Support that keeps labs running.



## Application Support

Offering worldwide support, our dedicated applications team with their in-depth scientific knowledge can help you achieve your research goals. By offering unmatched support, our application scientists are your main contact for any questions you may have from development of imaging protocols to training and education ensuring you get the answers and guidance you need.



## Training and Education

Get the most from your *in vivo* imaging research by learning from the experts. We offer basic and advanced training at your facility as well as classroom training through *In Vivo* University to broaden your knowledge, share with fellow researchers, and learn from field application scientists.



## Service

Our global service engineers are available to help you with installation, preventative maintenance, technical guidance, and any repair services to ensure that your imaging system operates as optimally as possible to meet your *in vivo* imaging research goals.



[www.revivity.com](http://www.revivity.com)

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