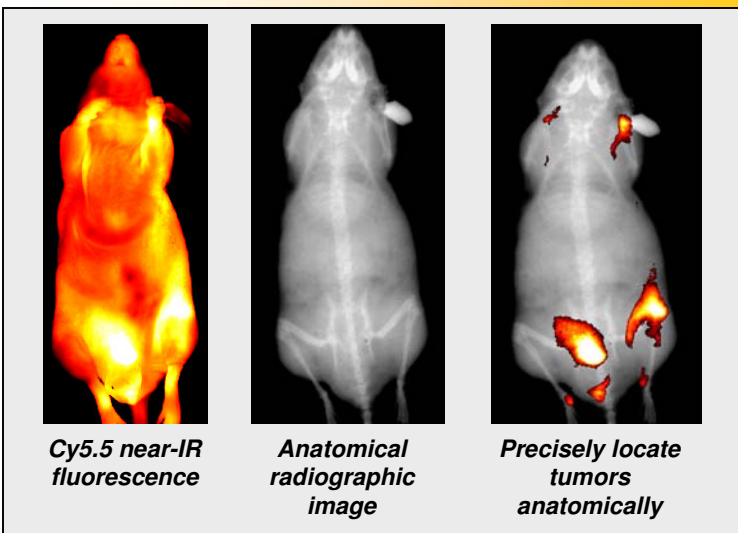




KODAK IMAGE STATION IN-VIVO IMAGING SYSTEMS

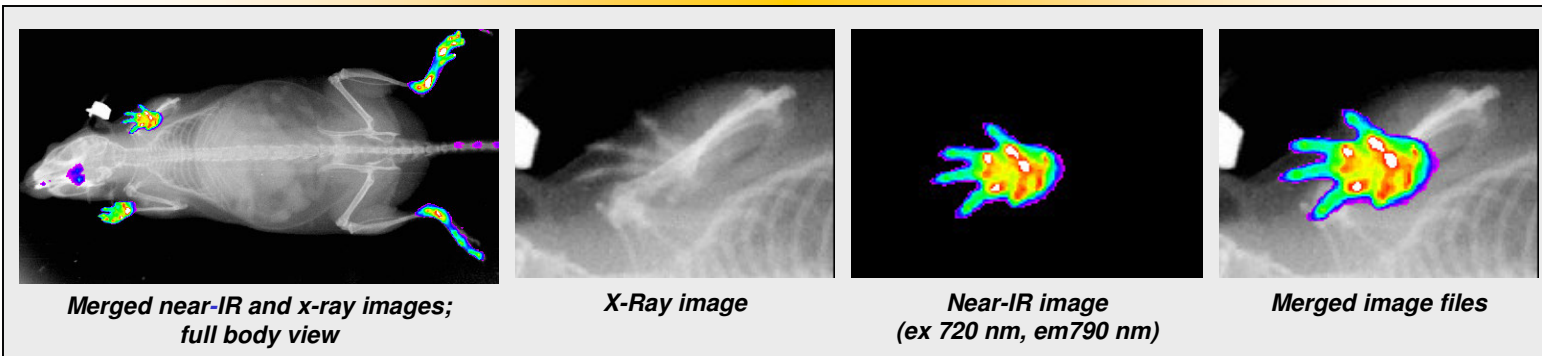
High sensitivity optical molecular imaging and high resolution digital radiography capabilities in a single multimodal system

The **NEW** Image Station In-Vivo Imaging Systems provide high performance optical molecular imaging of near-IR fluorescence, isotopic, and luminescence labels in small animals. The Image Station In-Vivo FX system features an integrated x-ray module that allows precise co-registration of anatomical x-ray images with optical molecular and isotopic imaging modalities for improved anatomical localization of biomarkers of interest.



Combined digital x-ray and near-IR (Cy5.5 MMP probe) image of tumor cells in mouse. Courtesy of Dr. K. Shi, C. Li, and J. Gelovani, MD Anderson Cancer Center

- **Greatly enhances anatomical localization of molecular imaging agent signals** in small animals, organs, and tissues
- **Enables accurate quantitation of biomolecules** of interest in basic research, drug discovery, drug development, and therapeutic monitoring applications utilizing small animals
- **Improves understanding of imaging agent's bio-distribution** through combined use of time-lapse molecular imaging and digital x-ray imaging
- **Allows simple switching between multiple imaging modalities** including near-IR fluorescence, multiwavelength fluorescence, luminescence, radioisotopic, and x-ray – without disturbing the sample
- **Safe in-lab operation** – the Image Station In-Vivo Imaging System complies with federal safety regulations for x-ray imaging systems
- **Versatile** – sample chamber also accommodates in vitro assay formats including blots, plates and gels
- **Complete system** – includes everything you need to facilitate imaging of small animals and subsequent image analysis, including Animal Management Center and new KODAK Molecular Imaging software for quantitative image analysis



Combined digital x-ray and near-IR fluorescence optical image of OsteoSense™ molecular imaging probe from VisEn Medical using in vivo mouse model. Courtesy of Dr. B. Bednar, Imaging Research, Merck Research Laboratories, Merck Co.



KODAK Image Station In-Vivo FX Imaging System



KODAK Image Station In-Vivo Imaging system is supplied complete with cooled CCD camera, imaging chamber, multi-wavelength fluorescence illumination, integrated x-ray module, KODAK Molecular Imaging Software, and more.

System Configuration

The KODAK Image Station In-Vivo FX Imaging System is comprised of a 4 million pixel, cooled CCD camera in a light tight imaging cabinet. 20 x 20 cm field of view allows imaging of 4 or more mice simultaneously. An external illuminator provides specific, selectable excitation from 380 nm to 780 nm. Proprietary wide angle filters allow high sensitivity imaging at near-IR wavelengths without optical artifacts.

The integrated x-ray module contains the x-ray source, safety switches, and status indicators, and is controlled by the KODAK Molecular Imaging software package.

The patented Animal Management Center with integrated sample chamber and phosphor screen allows environmental control and sequential imaging in x-ray and fluorescence modes without moving the sample.

Kodak's new Molecular Imaging Software package provides comprehensive image analysis capabilities for both *in vivo* and *in vitro* applications, including automated region of interest analysis and relative intensity measurement.

FDA Compliance

The KODAK Image Station In-Vivo FX Imaging System meets or exceeds compliance to FDA Department of Health and Human Services regulation CFR 1020.40 for radiation safety.

For More Information

For more information on the Image Station In-Vivo FX Imaging System and the complete line of KODAK Image Station digital imaging systems, please visit www.kodak.com/go/molecular or call toll free in the United States and Canada 1-877-747-4357, express code 7. Outside of the United States, call +1-203-786-5657.

System Specifications

Camera:	CCD	2048 x 2048 pixels, cooled to -29°C
	Lens	10x zoom, 20 - 200 mm
Illumination:	Fluorescence	Selectable multi wavelength epi-illumination, 380 - 780 nm
	White Light	White light epi-illumination
Emission Filters		Selectable wide angle filters, 440 nm - 830 nm
Performance:	Field of View	2 x 2 cm to 20 x 20 cm
	Optical Resolution	10 microns/pixel
	Data Acquisition	16-bit single capture; n-bit data acquisition
Detection Modes:		Luminescence, Near-IR Fluorescence, Multi wavelength Fluorescence, Absorbance, Radioisotopic, X-Ray
Exposure Modes:		Single capture, Multiple Capture, Progressive, Time Lapse
Digital X-Ray Module:	Energy Range	Approximately 12 - 35 kVp
	Maximum Current	Approximately 150 µA
	Spot Size	<50 µ
	Target Material	Tungsten
	Window Filtration	Beryllium
	Cone of Illumination	>33 degrees
	Field of Illumination	20 x 20 cm

Ordering Information (Catalog Numbers)

Description	PC	Mac
Image Station In-Vivo FX System	858 0540	897 4545
Image Station In-Vivo F System	886 0488	894 3953

The Image Station In-Vivo FX system includes:

- Imaging chamber with cooled 2048 x 2048 pixel, 16-bit CCD camera
- Controllable x-ray module
- External illumination source
- 5-position excitation filter slider with four excitation filters of choice
- 4-position emission filter wheel with four proprietary wide angle emission filters of choice
- Radiographic Phosphor Screen
- Radioisotopic Phosphor Screen
- Thermal Control Unit
- Animal Management Center
- Animal Chambers
- Atmospheric Control Ports
- PC or MACINTOSH computer with 17" flat screen monitor
- KODAK Molecular Imaging Software, 3 network licenses or 3 seat standalone license
- On-site instrument installation and user training
- User documentation and 12-month limited warranty

The Image Station In-Vivo F system contains all components listed above, with the exception of the x-ray module and radiographic phosphor screen.

While the Image Station In-Vivo Imaging System can be used for *in vivo* and *in vitro* molecular imaging of materials, users should be aware that the methods of preparing and viewing the materials for molecular imaging may be subject to various patent rights.