

Extensive user training programs

Comprehensive and personalized trainings

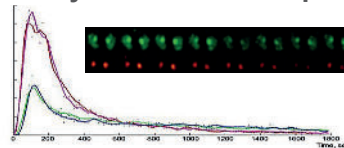


“Empowering Users to Tap the Full Potential of MILabs Imagers”

Gated cardiac studies



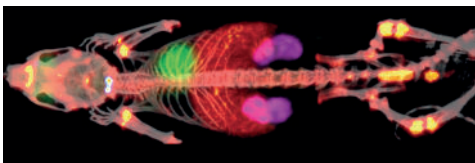
Fast dynamic dual-isotope SPECT



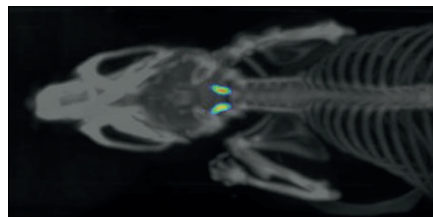
Full-body SPECT and PET



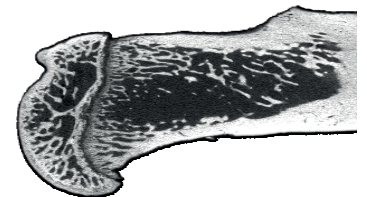
Simultaneously PET-SPECT



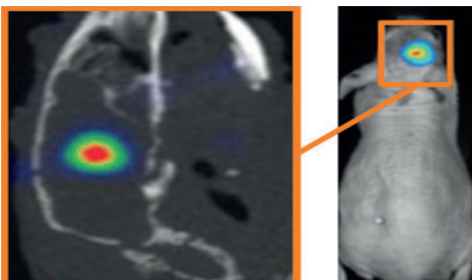
Theranostic imaging ¹³¹I



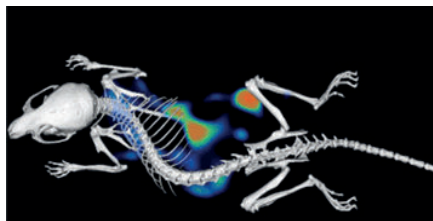
Adaptive X-ray CT



Brain optical imaging



Total-body mouse optical imaging



Introductory classes as well as courses for advanced operators

Selection of available training modules

MILabs is offering a wide range of advanced application trainings for U-SPECT/CT, U-PET/CT, VECTor/CT, U-OI/CT and U-OI users which are building on the gained knowledge of the basic user training. For a VECTorOI/CT, the modules for VECTor/CT and U-OI and/or U-OI/CT will be combined depending on the system configuration.

U-SPECT/CT, U-PET/CT and VECTor/CT

Module	Topic	Hours	Description	
Basic user application & system training	1	Introduction and system overview	2	Instruction about nuclear imaging, applications, system overview and functions.
	2	Safety and precautions	1	Learn all about how to work with radioactivity in a safe way.
	3	Mechanical operations	2	Renew your knowledge and get the latest tips and tricks about the system.
	4	Animal preparation	2	Step-by-step animal preparation, including anesthesia and animal handling.
	5	Image acquisition	2	Step-by-step image acquisition.
	6	Image reconstruction	2	Step-by-step iterative SPECT and PET image reconstruction.
	7	Basic image processing	3	Basic image processing using PMOD, loading images, ROI 2D and 3D, data analysis and filtering.
	8	Basic user maintenance	1	Learn how to maintain your system.

U-OI/CT

Module	Topic	Hours	Description	
Basic user application & system training	9	Introduction and system overview	2	Instruction about optical and CT imaging, applications, system overview, and functions.
	10	Safety and precautions	1	Learn all about how to work with the optical unit in a safe way.
	11	Mechanical operations	2	Renew your knowledge and get the latest tips and tricks about the system.
	12	Animal preparations	2	Step-by-step animal preparation, including anesthesia and animal handling.
	13	Image acquisition	3	Step-by-step CT, Fluorescence and Bioluminescence image acquisition using phantoms and animals.
	14	Image reconstruction	2	Step-by-step image reconstruction of the CT and 3D fluorescence and bioluminescence data.
	15	Image processing	3	Image processing of the 2D optical data by OI-PP and CT as well as 3D optical data by Imalytics Preclinical.
	16	System maintenance	1	Learn how to maintain your system.

U-OI

Module	Topic	Hours	Description	
Basic user application & system training	17	Introduction and system overview	0.5	Instruction about optical applications, system overview, and functions.
	18	Safety and precautions	0.5	Learn all about how to work with the optical unit in a safe way.
	19	Mechanical operations	0.5	Renew your knowledge and get the latest tips and tricks about the system.
	20	Animal preparation	2	Step-by-step animal preparation, including anesthesia and animal handling.
	21	Image acquisition	2	Step-by-step 2D fluorescence and bioluminescence image acquisition using phantoms and animals.
	22	Image processing	1.5	Image processing of the 2D optical data by OI-PP
	23	System maintenance	1	Learn how to maintain your system.

Module	Topic	Hours	Description	
Advanced user application training	24	Advanced image acquisition	4	U-SPECT/VECTor/CT acquisition, static and dynamic studies and phantom scans.
	25	Gating	4	Gated imaging, respiratory, cardiac and/or 3rd trigger gating; acquisition, reconstruction, data analysis (M2M BioVet required).
	26	Advanced image reconstruction	4	In-depth training on iterative reconstruction, parameter influence, selection of optimal settings and filtering.
	27	Quantification	4	Quantification, Attenuation correction, Background windows, Single-isotope and dual-isotope.
	28	Image processing	4	Imaging, saving/loading images, Image filters, Noise, Statistics, Rendering. Discover more functions and options of PMOD, automatic ROI, 2D, 3D, visualization, filtering 3D and 4D.
	29	Planning and animal handling	4	Plan your study wisely; study design, tracer selection, animal handling and preparation. Animal monitoring, anesthesia, scan time, data handling and analysis.
	30	Tumor imaging	8	Training on tumor imaging, importance of tumor location, acquisition parameters and data analysis.
	31	Brain imaging	8	Training on brain imaging, importance of tracer selection, timing, acquisition parameters and fixation.
	32	Application support	8	Support of an application specialist for your experiments.
	33	Spectral unmixing	4	Image multiple fluorophores and spectrally unmix the signal using Imalytics Preclinical Software
	34	Quantitative total-body biodistribution studies using Fluorescence Tomography (FLT)	4	Perform 3D fluorescence imaging and quantitate the data
	35	Well-plate imaging	2	Bioluminescence and fluorescence imaging of well-plates and learn how to quantify the signal using the OI-PP software