

inviCRO Image Analysis Services			CT	PET	SPECT	MR	Ex-vivo	Autoradiography	CFT	Simulation Data
Offering	Description	Disease Area								
Group and Longitudinal Statistical Analyses	Graphical displays of data, descriptive statistics, inferential statistical methods, regression analysis	General	x	x	x	x	x	x	x	
Tissue Biodistribution	Analysis of signal measured in selected organs	General	x	x	x	x	x	x	x	
Infarct Volume	Estimation of infarcted myocardium region volume	Cardiology	x	x	x	x	x			
Time Activity Curve Analysis	Generate and analyze TACs on an image or ROI basis	General	x	x	x	x				
Lymph node Analysis	Identify and quantify lymph node signal	Oncology, Neurology	x	x	x			x	x	
Wound Analysis	Analyze result of imaging wound model in animals	Pain, Inflammation	x	x	x			x	x	
Tumor Identification Analysis	Analysis of signal differences within image (hot spots) and correlation between modalities to identify developing non-xenograft tumors inside animal	Oncology	x	x	x				x	
Gut motility	Analysis of signal intensity in GI tract, GI transit time, gastric irritant	Gastrointestinal physiology	x	x	x		x			
Focused Lung	HU histogram, Radioactivity analysis, signal distribution as function of distance from airway, airway skeletonization	Oncology, Pulmonary	x	x	x					

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Arthritis assessment	Assess swelling, bone surface roughness, radioactivity in joints and bones	Pain, Inflammation, Rheumatology	x	x						
Unilateral Ureteral Obstruction	Identify result of UUO on tracer in Kidney region	Nephrology	x		x					
Focused Spine	Segmentation of individual vertebrae, discs, and CSF space	Pain, Immunology	x		x					
Gray Matter/White Matter Identification	Tool developed for identifying gray matter and white matter in rodent brain	Neurology	x			x				
Body Composition Analysis	Volumetric analysis of lean tissue, fat, and bone	Oncology	x			x				
Implant analysis	Determine volume and localization of implanted bone graft	Osteology	x					x		
Skeleton Segmentation	Automated segmentation of skeleton	General	x							
Surface roughness	Estimate surface roughness on voxel-by-voxel basis	General	x							
Osteolysis/Osteogenesis	Determination of bone growth/loss on voxel level	Osteology	x							
Bone Cortical Thickness Analysis	Determine thickness of bone cortex from μ CT	Osteology	x							

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Periodontal diseases assessment	Estimation of volume and shape change of bone in jaw, including computation of parameters like BV/TV	Periodontics	x				x			
Vasculature analysis using AltaBlu	Determine vessel radius, branch length, branch aspect ratio, branch vessel branching fraction, and branch tortuosity	Various (Nephrology, Pulmonary, etc)	x				x			
Brain Voxelwise Analysis	Evaluation of changing brain signal at the voxel level, including hemispheric and statistical analysis.	Neurology, Oncology		x	x	x			x	
Brain Region Atlas	Measurement of signal in brain regions using atlas-based segmentation for region based statistical analysis	Neurology, Oncology		x	x	x				
Tumor Profile Analysis	Analysis of distribution of signal within xenograft tumor	Oncology		x	x	x				
CiQuant (3D Ex Vivo Data Analysis)	Analysis of ex vivo white light anatomical data with any of several functional modalities (autoradiography, histology, MALDI)	General		x	x		x	x	x	
Tracer Kinetic Modeling	Examine VBV or ROI based PK output based on multiple models	Oncology, Neurology		x	x					x
Cardiovascular Function	Determination of left ventricle ejection fraction and wall thickness	Cardiology		x	x					
Partial Volume Effect Correction	Use partial volume effect correction calculation to improve ROIs near hot organs such as heart and bladder	General		x	x					
Dosimetry Analysis	Estimate radioactive dose to each organ	Radiology		x	x					

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Brain Lesion Identification	Identification of multiple types of brain lesions	Neurology, Oncology		x		x				
Clinical Phantom Analysis	Analysis of phantoms for clinical study prep	General			x					
SPECT Reconstruction	Reconstruct parallel hole collimator projection data	General			x					
Dynamic Planar Scintigraphy	Analyze dynamic planar scintigraphy images for estimation tracer uptake as a function of time	General			x					
Renal Volume	Estimation of kidney volume	Nephrology				x			x	
Brain Volume Analysis	Estimate volume change in cerebellum, hippocampus, and cortex, plus whole brain	Neurology				x			x	
Diffusion-Weighted/Diffusion-Tensor MRI Analysis	Qualitative and quantitative assessment of diffusion coefficients and tensors and anisotropy from DWI/DTI MR image data	General				x				
T2* Mapping	Analysis of T2* distribution from gradient echo imaging	General				x				
Knee Cartilage Analysis	Volume and thickness analysis of cartilage in the knee joint	Inflammation, Injury				x				
Scaled Subprofile Model - Principle	Use ASL MRI to determine degree of Parkinsons Disease state	Neurology				x				

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Functional Connectivity	fMRI to determine associative behavior of brain regions	Neurology				x				
Magnetization Transfer Ratio	Registration of brain magnetization transfer (MT) images and computation of MT ratio.	Neurology				x				
MR Spectroscopy (MRS)	Single proton multi-voxel MR spectroscopy analysis for quantitation of relevant compounds	Neurology				x				
phMRI	Linear or Non-Linear estimation of the signal model and percent change due to a drug infusion	Neurology				x				
CSF Volume	Identify volume of CSF space	Neurology				x				
CSF Velocity	Identify velocity of CSF as it moves through the spine	Neurology				x				
Brain Cortical Thickness Analysis	Determine cortical thickness from brain MRI	Neurology				x				
Deformation Based Morphometry	Align data longitudinally and qualitatively examine regions of expansion/contraction	Neurology, Oncology, Rheumatology				x				
Dynamic Contrast Enhanced MR	Calculate DCE parameters based on model	Oncology				x				
Focused Muscle Volume	Estimation of muscle volume and deformation over time in gastroc muscle	Rheumatology				x				

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Focused Testes	Examination of tubule width and DWI	Toxicology				x				
Ossification Analysis	Detection and estimation of parameters surrounding heterotopic and ectopic ossification	General	X							
Gamma Counting and Mass Balance	Quantitation and analytics from gamma counter data for mass balance or other, general gamma counting studies	General								
Quantitative Susceptibility Mapping (QSM)	Combines intensity and phase information to provide maps of local magnetic susceptibility in the brain	Neurology				X				
Multi-Atlas Segmentation	Development and implementation of reference library data sets for use in linear- and nonlinear-registration based multi-atlas segmentation routines	General	X	X						
Multi-Isotope Studies	Analysis, including crosstalk removal and modeling, for multi-isotope SPECT and autoradiography studies.				X			X		