

Imaging Instrumentation at the University of Miami

DRAFT for discussion purposes only.

The following lists instrumentation available to University of Miami researchers for imaging studies in humans or animals.

1. Primary Research Instrumentation:

Medical Campus

Model & Manufacturer	Location	Primary use	Current research use and availability	Other
3.0 T MRI Siemens Trio/TIM	Appelbaum MRI Center	Human, research	4% research use, prime time. Off-peak hours for technical development. Scheduling approx 3 days wait.	18-channel detection; IFIS fMRI system with LCD screen; Specialized coils for body and spine imaging. Full sequence development capability. Contact: Angel Loor 243-2804
4.7 T 30 cm bore MRI, Bruker	Batchelor Building	Small Animal	Approx. 70% Currently no projects are funded for instrument use.	Includes multinuclear capability. Full-time engineer. Contact: Dr. Pattany 305-243-3920
1.5 T MRI Siemens Sonata	Trailer (to be placed in Biomedical Research Building?)	Large animal		Contact: Dr. Hare (?), Cardiology.
t.b.d.	Biomedical Research Building, Animal Imaging Core facilities	Large Animal	n/a	Projected for mid-2008. Plans include 1.5T MRI (above), portable C-arm X-ray, CT or PET/CT, and angio/cath lab.
Siemens AngioStar angiographic system	Endovascular Reseach Center (ERC)	Animal	Fee for service	Contact: Dr. Lieber 305-284-2330

Coral Gables Campus

Model & Manufacturer	Location	Primary use	Current research use and availability	Other
Fisher Imaging Corp. Mammotest high-resolution stereotactic digital breast biopsy system	Biomedical Optics Laboratory, Dept. Biomedical Engineering, MCA170A	Basic research on cadaver tissue and tissue phantoms	20% Can be made available to outside investigators	Contact: Dr. Fabrice Manns, 284-2335
Intelligent Hearing Systems EEG-EP Acquisition (high resolution) with Limited Mapping	Neurosensory Laboratory, Department of Biomedical Engineering, EB 153	Basic research on normal humans (no patients)	50% Can be made available to outside investigators	Contact: Dr. Ozcan Ozdamar, 284-2136 Dr. Jorge Bohorquez 284-1639
INeuroScan EEG-EP Acquisition with Brain Mapping and Dipole Localization	Neurosensory Laboratory-Hiatec, Department of Biomedical Engineering, EB 153	Used for basic research on normal humans (no patients)	New instrument. Procedures are currently in development. Can be made available to outside investigators with Hiatek Agreement.	Contact: Dr. Ozcan Ozdamar, 284-2136 Dr. Jorge Millan 925-1269
James Long Co. 22-channel EEG/ERP acquisition/analysis system	Child Division, Department of Psychology, 317 Flipse	Basic research. Infants to young adults.	60% Available to faculty & students in psychology	Contact: Dr .Heather Henderson, (305) 284-8481
Electrical Geodesics 128 channel EEG/ERP acquisition /analysis system	Child Division, Department of Psychology, 309/310 Flipse	Basic research. Infants to young adults.	50% Available to faculty & students in psychology	Eye Tracking capability. Contact: Dr. Heather Henderson; Dr. Peter Mundy; Dr. Daniel Messinger, (305) 284-8481

2. Additional Major Clinical Instrumentation

Medical Campus (partial list)

All UM Radiology facilities are available by appointment for research on a pay-for-service basis. For further information contact Angel Loor at 305-243-2804.

Model & Manufacturer	Location	Current research use and availability	Other
1.5T MRI Siemens Sonata	Appelbaum MRI Center	3% Scheduling approx 2 weeks.	8-channel phased array head coil.
1.5T MRI Siemens Symphony	Appelbaum MRI Center	0.3% Scheduling approx 2 weeks.	8-channel phased array head coil.
1.5T MRI Siemens Sonata	Bascom Palmer	0%	
CT Siemens Sensation 16	UMHC		Multi-detector
CT Siemens Sensation 64	UMHC		Latest generation of multi-detector CT, optimized for cardiac and vascular imaging
PET/CT Gemini Power-16. Philips Medical. (to be replaced with TF-16, 8/2007)	UMHC (Ground Floor)	<1%. Heavy clinical use. Only available for research after hours or weekends.	Currently limited to F18-FDG due to the unavailability of a cyclotron. Planned replacement includes latest Time-of-Flight technology and use of Rb-82 and F18-FDOPA.
SPECT Philips Skylight dual-head camera	UMHC (First Floor - Nuclear Medicine)	0%	
SPECT/CT Siemens Symbia T6	Summer 2007 UMHC		
Misc. X-ray and ultrasound (see separate UMHC list)	Appelbaum, UMHC		

VA Medical Center

Model & Manufacturer	Location	Primary use	Current research use and availability	Other
1.5 T MRI Siemens Symphony	VA Medical Center	Clinical	0% Heavy clinical use	Research use would require discussions with Chief of Staff.
1.5T MRI Siemens Espree	VA Medical Center	Clinical	Arriving June 2007.	"
CT 16-slice, GE	VA Medical Center	Clinical	0% Heavy clinical use	" To be replaced by a 64-slice unit.

3. Imaging-Related Computational Facilities

System(s)	Location	Description
PACS Workstation, Network Server, and PCs	Advanced Image Processing Lab, MRI Center	Under development as of 3/2007, funded by the Department of radiology with equipment and software support from Siemens Medical. This lab will support both clinical and research imaging. Contact: Dr. Ammar Darkazanli 243-7458
Network services	Multiple	The Information Technology departments on all campuses can provide computational, storage, and application hosting services.