



FACT SHEET

Preclinical MRI at MUSC

Equipment:

- 7T Bruker BioSpec 70/30 Avance II MRI scanner (purchased in 2007)
- Console running both Paravision 5.1 and 6.0.1
- Multiple RF receive coils
- Isoflurane anesthesia system
- Physiological monitoring and heating system for small animals
- Leica M60 Stereo Microscope (for supporting animal surgery)

Support staff:

- MRI technologist
- IT manager
- Biomedical engineer

Applications:

- Small animals including mice and rats
- Tissue samples
- Anatomical (T1, T2, T2*)
- Diffusion MRI (DTI, DKI)
- BOLD fMRI
- Perfusion
- Dynamic contrast enhanced imaging
- Black blood cardiac imaging
- Angiography
- MR spectroscopy

Grants supported past 10 years:

- 16 NIH grants (\$16,212,123 in total funding)
- 4 VA grants
- 11 Foundation/intramural grants
- 29 Development projects

Location:

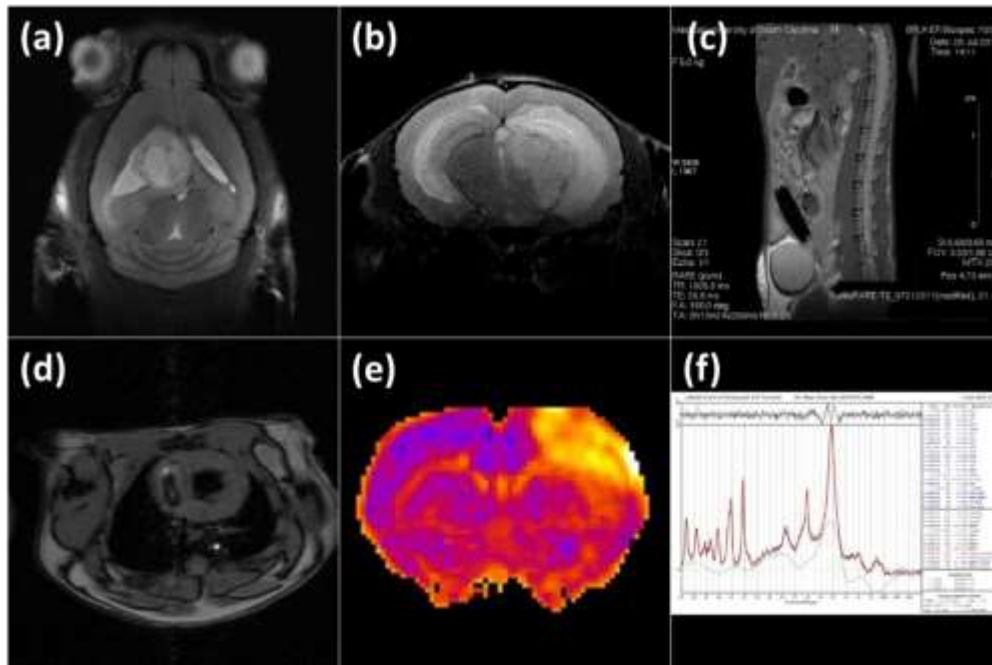
Room BE235
Center for Biomedical Imaging
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Image gallery:



(a) Axial T2-weighted image of brain tumor; **(b)** Coronal T2-weighted image of medial cerebral artery occlusion stroke in rat; **(c)** Fast spin echo T2-weighted image of spinal cord; **(d)** Black blood image of mouse heart; **(e)** Coronal mean kurtosis map of focal ischemic lesion in rat brain; **(f)** Chemical shift spectrum obtained with magnetic resonance spectroscopy.