



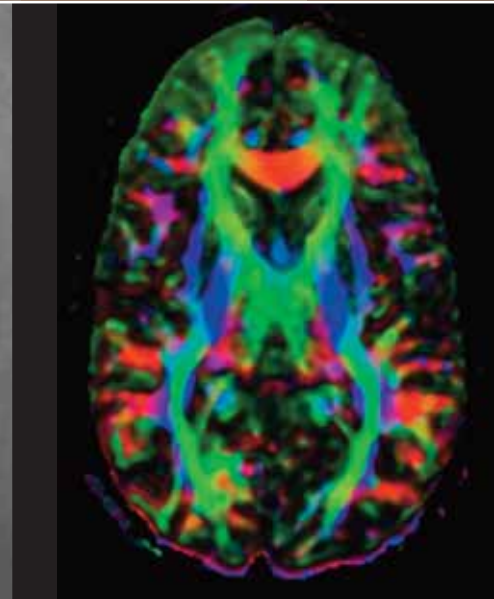
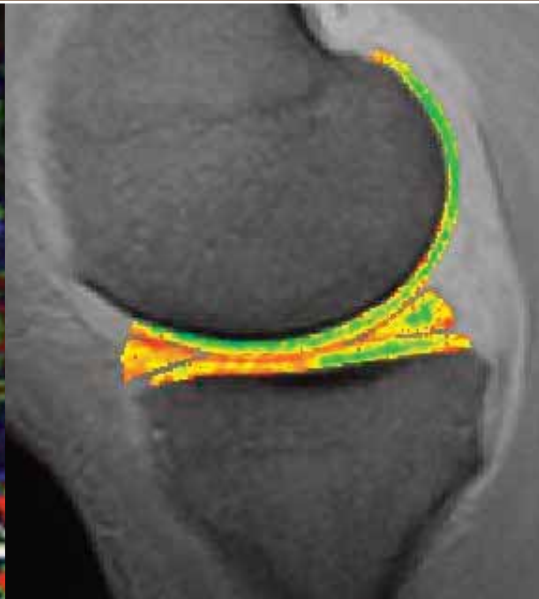
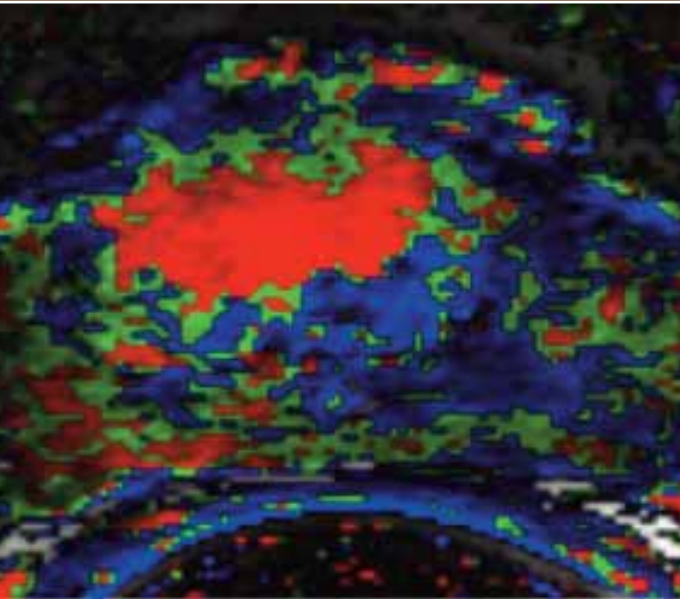
Beth Israel Deaconess
Medical Center



A teaching hospital of
Harvard Medical School

DIVISION OF MR RESEARCH

innovative research towards improved patient care

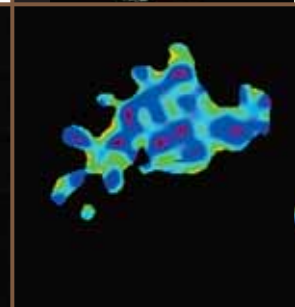
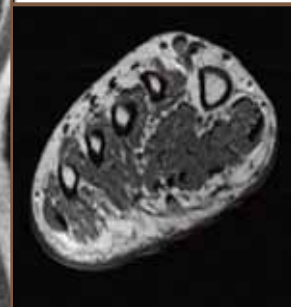
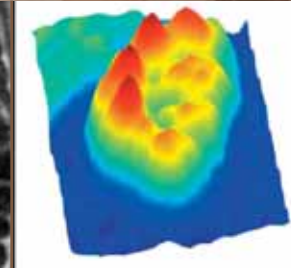


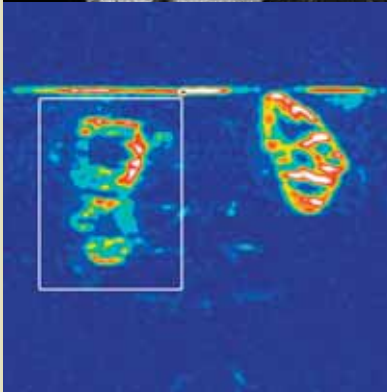
MR has progressed from a primarily anatomic imaging technology to one that can provide functional, metabolic, and even molecular characterization of tissue. The ability to quantify physiology, in combination with its noninvasiveness, has made MR a compelling tool for clinical and experimental research.

The MR Research Division is a unique combination of imaging experts and imaging facilities. Our 3T and 1.5T GE high-speed imagers for human studies and small bore 4.7T and 8T experimental systems can generate state-of-the-art images and spectra. The addition of innovations from our technical staff make possible truly one of a kind studies, with unique sensitivity to physiology and disease. We are committed to maximizing the impact of the division by collaboration within and outside of BIDMC on research studies using MR.

Capabilities

The BIDMC MR Research Division offers imaging time on two research-dedicated whole-body scanners: General Electric 3 Tesla and GE 1.5 Tesla scanners. Both scanners are FDA approved and operate with current state-of-the-art hardware and software. In addition, we have access to proprietary software, including pulse programming environments and reconstruction programs.





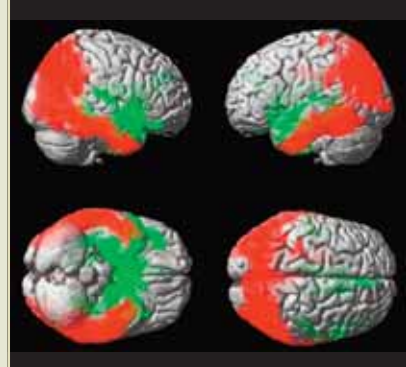
The 3 Tesla System has high-speed imaging/echo planar imaging capabilities. Support for fMRI acquisition and stimulus presentation, diffusion tensor imaging, and high quality anatomic imaging is available. The system has specialized receiver coils for sensitive imaging of particular anatomy including prostate, carotids, knees, and spine. Additional customized coils can be manufactured in our RF lab. The system also has full broadband capability for multinuclear MRI and MRS, including F-19, C-13, P-31, and Na-23.

The 1.5T Scanner operates with current state-of-the-art hardware and software including high order shimming. This scanner is equipped with a 32-channel receiver system and 32 element coils. A focus of this system is highly accelerated imaging of the body for reduced motion and realization of functional contrast.

Both scanners are equipped with power injectors for contrast administration and physiologic patient monitors. Our facility can also provide or facilitate Clinical Reading, Image Management, Image Post-processing, MRI Compatible Equipment, Computerized image transfer of multi-center trial data and Site certification.

Scientific Expertise

Our faculty and staff have specialized expertise in many areas including Functional Neuroimaging Studies (fMRI), Diffusion and Diffusion Tensor Imaging, Arterial Spin Labeling Perfusion Imaging, Quantification of Cartilage Degradation, MR spectroscopy, Highly Parallel, Accelerated Volumetric Imaging, Prostate Imaging, Monitoring cancer therapy, Non-invasive Assessment of Renal Function, Muscle metabolism, MR Angiography, and *In-Vivo* Multinuclear MR Imaging Methods.



Magnet Rates

Please contact the Program Manager for magnet rates and other MR related charges.

Hours of Operation

Monday –Friday*
8am-8pm
*Weekend hours may be requested

Contact Us

For general information about MR Imaging and Technical Expertise

David Alsop, PhD

Director, Division of MR Research
dalsop@bidmc.harvard.edu

For general information about using the 3T and 1.5 scanners, new collaborations, projects and billing

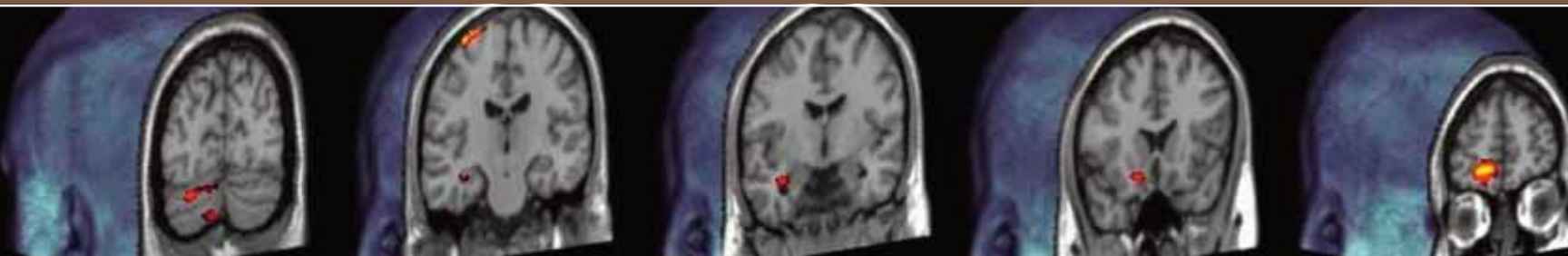
Kerri Mims, MHA

Program Manager
kmims@bidmc.harvard.edu

For general information about the small bore 4.7T and 8T experimental systems

Deborah Burstein, Ph.D.

Director, Center for Basic MR Research
dburstei@bidmc.harvard.edu



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Division of MR Research
330 Brookline Ave
Boston, MA 02215
(p) 617- 667-5915
(f) 617-667-7382
www.bidmc.org/MRIResearch