

## **Facilities & Other Resources**

### *Neuroimaging Facility: Baylor College of Medicine Core for Advanced MRI (CAMRI)*

CAMRI is a state-of-the-art facility for human functional neuroimaging. Directed by Chadi Abdallah, M.D., CAMRI contains approximately 9,000 square feet of available space, providing abundant touchdown space for users. CAMRI has two research-dedicated Siemens 3 tesla Prisma Fit scanners. Parallel acquisition capability is available and rapid-acquisition of fMRI data is possible with multiband, spiral and gradient-echo pulse sequences. A patient reception area, and three dedicated behavioral testing rooms allow for efficient screening, training and testing of subjects.

### *Personnel*

CAMRI is fully staffed to ensure the success of our users' research projects. A front desk receptionist greets patients and ensures that all paperwork is correctly completed. We also have a MRI Technologist on staff to ensure that subjects are scanned safely with appropriate protocols. A IT support person maintains stimulus delivery equipment and stores all acquired MRI data using our BOX servers.

### *Intellectual Environment*

CAMRI is located in the heart of the Texas Medical Center, the world's largest medical complex, with 21 renowned hospitals and 7.2 million annual patient visits. The high density of neuroscience related researchers and unmatched facilities at the University of Texas Medical School (UT), Baylor College of Medicine (BCM), Rice University, M.D. Anderson, the Methodist Hospital Research Institute, and other Texas Medical Center member institutions provide an outstanding environment for the proposed research.

## **Equipment**

Both of our Siemens 3T Prisma scanners are software version VE11E. Both scanners have a 60cm bore size. The accessories with both scanners are the same except scanner 5 has a 32 channel headcoil, 20 channel head coil and a 64 channel headcoil while scanner 4 has the 20-channel headcoil and the 64 channel headcoil.

In addition to the scanners themselves, CAMRI houses many pieces of equipment that are specific to conducting functional MRI scans. These are able to facilitate a variety of types of functional experiments in the scanner environment.

Visual stimuli are presented in the scanner with a Cambridge Research Systems BOLDScreen to provide super high brightness, high contrast and high resolution (1920 x 1200 IPS panel with 8-bit color resolution and 1000:1 contrast ratio).

Auditory stimuli are presented with OptoAcoustics active noise cancelling headphones that remove 95% of gradient noise and provide extraordinarily clear sound quality.

Behavioral responses are recorded with a Current Designs manual response system. Spoken responses may be recorded with an OptoAcoustics FOMRI-III fiber optic noise cancelling microphone.