Research Policies and Procedures at CBS Neuroimaging

THE MRI ENVIRONMENT INVOLVES STRONG MAGNET FIELDS THAT CAN CAUSE SERIOUS INJURY OR DEATH. PLEASE UNDERSTAND AND ADHERE TO ALL OF THE SAFETY PROCEDURES INCLUDING:

(1) DO NOT ENTER THE SCANNER SUITE UNLESS YOU ARE PROPERLY TRAINED AND CERTIFIED BY TAMMY MORAN. THE SCANNER SUITE INCLUDES THE CONTROL ROOM AND EQUIPMENT ROOM OUTSIDE THE SCANNER.

(2) NEVER TAKE A VISITOR OR ANYONE WHO HAS NOT BEEN PROPERLY SCREENED INTO THE SCANNER ROOM ITSELF.

(3) DO NOT BRING ANY METAL OBJECTS INTO THE SCANNER ROOM.

(4) NEVER LEAVE A PARTICIPANT ALONE IN ANY ROOM OF THE SCANNER SUITE.

(5) FACULTY PRINCIPAL INVESTIGATORS ARE RESPONSIBLE FOR THE SAFETY AND ACTIONS OF THEIR PARTICIPANTS, STUDENTS, AND STAFF.

SCANNER SUITE ACCESS:

The scanner suite is the room around the scanner that includes the control room and equipment room. No user is allowed scanner suite access until they complete all levels of MRI training.

MRI TRAINED USERS:

Anyone wishing to operate the scanner and have scanner suite access must complete all safety training and pass 1-2 certifying tests once that person has attended and participated in no less than 20 scan sessions and feels they are proficient in all scanning procedures. Please see the policies and procedures section of the CBSN website for details on training levels: http://cbs.unix.fas.harvard.edu/science/core-facilities/neuroimaging/investigators/policies/training-levels

SCAN BUDDIES:

MRI studies must be conducted by a minimum of two investigators. Between the hours of 8:00 AM and 5:00 PM Monday through Friday, at least one investigator must be fully trained and have a green badge. This also means that if the study requires an investigator to leave during the scanning, you may need more people to make sure that two people including a fully trained individual are always present during scanning.

After-hours and on weekends there must be a minimum of TWO green badge investigators present at all times during scanning. There are no exceptions.

Anyone wishing to be a scan buddy must complete safety training at CBS Neuroimaging with Tammy Moran and have a yellow badge.

MRI RESEARCH OBSERVERS:

Individuals wishing to observe an MRI study from the control room are required to view the magnetic environment safety video. Please contact Tammy about accessing this video. No one should ever go into the scanner room itself without being properly screened.

SCANNER ETIQUETTE:

Common sense and courtesy are the rules of thumb. Be aware, note unsafe situations before they happen, and leave the scanner they way you would like it to be left for yourself. Please be guided by the following:

Safety - The principle investigator of the study and his/her designated users are responsible to make sure the scan room is a safe environment. Never bring metal objects into the scan room. Please review screening forms carefully prior to the scanning session. If there is any question about exclusion criteria, simply do not scan. Make sure all volunteers are free of all metal before entering the scan room. Always provide hearing protection to volunteers. Never leave a participant alone in any room of the scanner suite. Follow guidelines that are taught in safety class.

Courtesy - Do not remove any cables or equipment from the scanner suite that do not belong to you. Return any equipment changes to their original state (i.e., projector screen adjustments). Do not leave random loose cables in the scan room, as they can cause artifacts and accidents.

Cleanliness - Keep the control room clean (throw away garbage, ear plugs, etc). Pick up any loose cables or equipment (return to storage) when you are finished using them. Fold and put away linen, and cushions when finished using them. Place used linen and scrubs in the provided laundry bins. Keep the scrub shelves organized and neat. When you are finished with your experiment, the scan suite should look like you were never there.

Do not go over your allotted time – The control room and scanner should be turned over to the next user group at the beginning of their session. This means you should leave time at the end of your slot to remove your participant and tidy the room for the next group. Even if you get started late, your session must end on time.

Responsibilities - As well as what is mentioned above, responsibilities also include filling out the log book, filling out and providing a copy of the screening and consent forms to Tammy Moran, backing up your data to the appropriate server. Please report any scanner issues or broken equipment to Tammy right away (tmoran@fas.harvard.edu).

INCIDENTAL FINDINGS:

The scanner we use has no history of clinical use and the sequences are not meant for

clinical evaluation. Your consent makes clear that we do not use the sequences for detection of clinical conditions and, if asked, you should verbally make clear that we do not examine the scans for abnormalities. It is important that we do not imply in anyway that the scans will be checked or evaluated by an expert for the purposes of clinical evaluation.

On occasion, investigators may notice a finding that seems abnormal. If this occurs you must report the finding directly to your faculty principal investigator. The principal investigator has the responsibility to decide the appropriate action. Please do not tell the volunteer about the finding until it has been reviewed, as you may cause undue alarm and anxiety.

SUBJECT CONFIDENTIALITY:

To ensure protection of the subject's confidentiality, the subject's name and date of birth should never be entered at the scanner console. Where the name is requested, please enter only the coded ID (e.g. 090123_XXXX). Do not use the subject's initials as part of the coded ID. Where the date of birth is requested, please enter only the birth year using January 1 as the day (e.g. 1/1/1988).

PROVIDING IMAGES TO PARTICIPANTS:

Please do not provide images to the participants.

IRB APPROVAL:

You can only scan subjects for research studies if you have proper IRB approval. All individuals running scans as designates of a principal investigator must be listed on the IRB approval associated with the study. It is the responsibility of the principal investigator to make sure that safety and other procedures are followed. It is also the responsibility of the principal investigator to ensure that yearly IRB re-approvals are obtained on time. You cannot scan if your IRB has expired!

SCHEDULING:

There are two avenues for requesting time on the scanner:

1) Recurring Blocks
Principal Investigators will have the opportunity to request recurring time blocks on the schedule. PIs will receive an email announcement calling for fixed block requests. This will occur approximately every 3 months for the following 3-month time period.

2) Open Slots
Principal Investigators or green-badge members of their labs may request open slots on the MRI schedule. To request an open slot:

- First check the Bay 1 MRI Scanner calendar.
- Click on the **log in** link at the top of the page or go to

https://webapps.sciences.fas.harvard.edu/spinal/.

- Login to SPINAL with your RC username and password. If you are a ***Harvard investigator*** and do not have an RC account you can request one by clicking the link to the right of the login box or go to https://software.rc.fas.harvard.edu/accounts/. If you are a ***non-Harvard investigator***, please email Caroline West (wcwest@fas.harvard.edu) who will request an account for you. If you are able to login but cannot see any resources, please email Caroline (wcwest@fas.harvard.edu) to be added to the list of eligible users.
- Click the link for the calendar and then click the date on which you would like to schedule. Fill out the sign-up form and then click **sign up!** at the bottom of the page.
- Your reservation is provisional until it is approved by a member of the CBS Neuroimaging staff. You will receive an email when your reservation is approved.

If you are unable to complete these steps for any reason please contact, you may email Tammy (tmoran@fas.harvard.edu) to sign up for time until your issues are resolved. Note: The PI must be cc'd on any email requesting MRI scan slots.

TO VIEW THE SCHEDULES PLEASE GO TO:
Scanner:
https://webapps.sciences.fas.harvard.edu/spinal/calendar/monthly/cbs-mri-bay-1-mri/

Mock Scanner:
https://webapps.sciences.fas.harvard.edu/spinal/calendar/monthly/cbs-mock-scanner/

Physiology Testing Room:
https://webapps.sciences.fas.harvard.edu/spinal/calendar/monthly/cbs-tr1-physiology-testing-room

Behavioral Testing Room:
https://webapps.sciences.fas.harvard.edu/spinal/calendar/monthly/cbs-tr2-behavioral-testing-room

ACCESSING YOUR DATA:

The Neuroimaging Compute Facility (NCF) is a central enabling infrastructure for neuroimaging teaching and research whose mission is to provide high performance, high power, robust, reliable and secure computer systems and human expertise to meet the challenges of neuroimaging research and teaching. The NCF is a collaboration between the Center for Brain Science and FAS Research Computing. It consists of a collection of workstations and a compute cluster.

The NCF is a resource for the Harvard Neuroimaging Community and their collaborators. To request a new account, fill out the online Account Request form. Requests for new accounts will be verified with lab PIs, so please allow a few days. When your account is

ready, you will be sent instructions for logging onto the system. For more information about the NCF and to request an account please go to:
http://cbs.unix.fas.harvard.edu/science/core-facilities/neuroimaging/facilities/ncf/ncf_terms

DEVICES BROUGHT INTO THE SCANNER ROOM:

Tammy Moran and Ross Mair will be in charge of installing all devices in the scan room. Under no circumstances should anyone bring a device into the room without Tammy or Ross's direct assistance. All devices, pieces of equipment (no matter how apparently benign) must be reviewed for their (1) safety for use in the scanner environment, (2) that their presence in the scanner room will not adversely effect the quality of image data, and (3) that they can be effectively and safely removed and stored. For instance, it is very important that all electrical equipment and cabling be shielded and kept as far from the magnetic field as possible. Just because something is shielded does not mean that it is not still magnetic. We are happy to try to accommodate your needs as best we can. If any permanently mounted or installed equipment needs to be moved, Tammy must also be directly involved as most equipment is where it is for a reason. If you experience a problem with any stimulus equipment please notify Tammy Moran right away.

For more information about the Neuroimaging facility please visit our website at:
http://cbs.unix.fas.harvard.edu/science/core-facilities/neuroimaging

To receive important notices about all imaging center activity please sign up for the mrusers email list at:
https://lists.hcs.harvard.edu/mailman/listinfo/mrusers-list

Thank you in advance for your cooperation.

If you have any questions contact Tammy Moran (tmoran@fas.harvard.edu) or the Principal Investigator with whom you are working.