

June 25, 2009

UCSD Center for Functional MRI

Policies for Using the 3T Scanners

Investigators holding faculty appointments within the San Diego research community may apply for access to the 3T whole-body imaging systems for research studies at the UCSD Center for Functional MRI (CFMRI).

Summary of key steps

1. Submit a proposal to one of our Proposal Review Committees describing the project and identifying a certified scanner operator to run the study (use the templates and checklist at the end of this document).
2. Obtain protocol approval from the appropriate UCSD IRB (human studies) or IACUC (animal studies).
3. Once these two administrative approvals are in place, a project number is assigned and you can schedule time through the online scheduler.
4. Invoices will be generated based on scheduled time at a rate of \$525/hr for the 3T systems. VA investigators are currently eligible for these UCSD rates, which do not include the use of our technologist.

These steps are described in more detail below. We have tried to keep these procedures simple and straightforward, and they may need to be changed in the future if problems arise. Suggestions are always welcome. For questions about these policies, and for inquiries about the status of a submitted proposal, please email cfmri@ucsd.edu.

Proposal Review Committees

We have two Proposal Review Committees: one handles only human neuroscience research proposals and is headed by the Chair of the Human Neuroscience committee; the other handles all other research proposals and is headed by the Chair of the Bioimaging committee. Prior to submission, we encourage you to discuss your proposal with the chair of the appropriate committee.

3T On-line Proposal Submission

Proposals for review by either the Human Neuroscience or the Bioimaging committee should be submitted using the on-line proposal form available at <http://cfmriweb.ucsd.edu/info/3TSubmission.html>

If you already have a 3T webschedule account, you may login and click on the Manage My Proposals button (Main menu). If are a Principal Investigator and do not have an account and, then please send an email message to Eman Ghobrial at eghobrial@ucsd.edu to request an account.

Additional Notes on usage of the online proposal submission system:

- 1) To submit a new proposal click on the New Proposal button.
- 2) There are 3 or 4 web forms that need to be filled according to your selection.
 - a) General Information
 - b) Operator Information (only needs to be filled out if you will not be using the Center technologist)
 - c) Billing Information
 - d) Project Information.

For additional information about each form, click on the Help button on the proposal pages menu bar

- 3) Please fill in all required fields

- 4) Your session will log out after 30 minutes of idle time. Please make sure you click on the *Save for Later* button if you are not planning to finish up all the required forms in one sitting. Your proposal will remain editable until you click on the Final Submit button on the preview page of the Project Information web form.
- 5) To edit a saved proposal click on the Edit Saved Proposal button (on Manage My Proposals Page), select your proposal and click on Edit Saved Proposal.
- 6) Once the Final Submit button is clicked, your proposal will be sent to the Human NeuroScience or the Bioimaging Review Committee. At this point, additional editing cannot be performed.
- 7) The PI can use the Check Proposal Status button (on Manage My Proposals Page) to check on the proposal status.
- 8) After review of the proposal, the PI will receive e-mail notification indicating that either (a) the proposal has been approved or (b) there are comments that need to be addressed. The PI can respond to the comments via the *Show Comments* page. If major revisions are required, the PI may be advised to resubmit their proposal.
- 9) Once the committee approves the proposal, an administrative review will be performed to make sure that all required certifications are on file. Once this review is completed, an account will be added to allow the PI to schedule research time, and an e-mail notification will be sent.

IRB or IACUC review

In addition to the local review at the CFMRI, all protocols must also have appropriate UCSD IRB or IACUC approvals. Proposals for human studies can be reviewed by the Proposal Review Committee before the UCSD IRB approval is complete, but the IRB approval must be on file at the CFMRI before a project number is assigned. For animal studies our Bioimaging Proposal Review Committee must approve the project before IACUC will approve it. A copy of the letter of approval from the appropriate UCSD review board (and an approved consent form for human subjects) must be emailed to cfmri@ucsd.edu.

Access to 3T Magnet Rooms

Access to the 3T magnet rooms is generally limited to personnel who have received MRI safety certification from the Center. A more detailed policy is available at (<http://cfmriweb.ucsd.edu/policies.html>). More information about safety training can be found at <http://cfmriweb.ucsd.edu/info/gettingstarted.html>.

Operator Certification and Training

A training course is offered covering scanner operation and safety, leading to certification as an independent scanner operator. Information on training is available at <http://cfmriweb.ucsd.edu/info/gettingstarted.html>. Only certified operators will be allowed to run the scanner, and we reserve the right to withhold or withdraw certification at the discretion of the Director. Certification will expire if the Operator does not scan for 4 months. In addition, each Operator must pass the Safety Certification test each year.

Eligibility: Only students and staff members affiliated with UCSD or a partner institution that has signed the License and Equipment Use Agreement with UCSD are eligible to become an Operator. Volunteer faculty and staff members at UCSD or the partner institutions are not eligible. Further details on operator eligibility and responsibilities are provided in additional documents available at the CFMRI website (<http://cfmriweb.ucsd.edu/policies.html>).

Scheduling

Once approvals are on file at the CFMRI and a certified operator has been identified, a project account is created on the Center computer under the PI's name. The PI may then log in and schedule time in half-hour blocks using the Web-based scheduling system (<http://cfmriweb.ucsd.edu/webschedule.html>).

3T Cancellation policies

Note: These policies apply to projects from UCSD or non-profit research institutions that have a partnership agreement with UCSD. Cancellation fees can be applied to other projects at the discretion of the Center.

1. *Lost hours:* We define lost hours as time-slots that go unused but were previously reserved by a PI for more than 2 hours during the previous 30 days. The 2-hour clause provides the opportunity for a PI to hold a slot briefly to confirm that it can be used, and as long as the PI cancels the slot within 2 hours they incur no responsibility for that slot. If a PI cancels a reserved slot and another PI reserves the slot, the first PI no longer has any responsibility for that slot. Otherwise, the PI is responsible for lost hours attributed to that project. Each month the responsible lost hours will be tallied for each project.

2. *Funded hours:* Each month we will also tally the funded hours used by each project.

3. *Rewards and Penalties:* We have targeted an acceptable level of lost hours as 25% of the funded hours. The Center will calculate the number of potential pilot hours at a rate of 25% of funded hours used by each project. To calculate the number of net pilot hours, the Center will subtract the number of lost hours from the number of potential pilot hours (e.g. net pilot hours = potential pilot hours – lost hours). If the number of net pilot hours is greater than zero, then these pilot hours will be added to the PI's pilot hour account. If the number of net pilot hours is less than zero, then these pilot hours will be subtracted from the PI's pilot hours account.

4. *Reconciliation of accounts.* If a project consistently performs worse than the 25% level, it is possible for the pilot hour account to go negative. Periodically we will reconcile all accounts for a PI, removing pilot hours from their other accounts if necessary to offset the deficit in accounts that have gone negative. In this way, the average performance of the PI's full suite of projects is required to meet a lost hours percentage of no more than 25%. If a PI cannot meet this goal, then we will have to introduce new policies limiting that PI's freedom in scheduling. At this point we hope that will not be necessary.

Examples: For a project that accrues 32 funded hours of scanner time, the maximum number of lost hours is 8. If the project has no lost hours, it will be awarded 8 pilot hours. For 5 lost hours, the project will be awarded 3 pilot hours. If the project is responsible for 10 lost hours, then 2 hours will be deducted from the project's pilot hour account.

Recharge rate

For UCSD investigators using UCSD budget index numbers, the rate for access to the scanner (without technologist) is \$525 for each hour that a 3T scanner is reserved. Access to scanners with our technologist will be charged an additional \$50 per hour. These rates are also currently applicable to VA. For outside investigators the rate is \$761/hr for the 3T systems without a technologist and \$834/hr with a technologist. This will be charged to the index number based on the number of hours scheduled. That is, the scheduling database will become the billing database. Note that these rates are subject to change.

Technical problems

A “technical problem” includes basic scanner functions as well as functionality of the standard ancillary equipment (projectors, button boxes, etc). Problems should be reported immediately through the Problem Report page of the website. This will let Center personnel know of the problem, and all other investigators will be able to see if there are current problems with the scanner that may require them to change their plans. While we certainly try to minimize such problems, they do occur. The best procedure for avoiding lost time due to technical problems is:

1. **Check the web page before you come in.** Before arriving for a study, the PI and/or the Operator should check the web page to see if any equipment problems have been reported that will preclude their planned study. If so the PI should cancel their scheduled time so that they are not billed for it.
2. **Check the FAQ’s on the web site.** If a technical problem is encountered after the study begins, they should first consult the FAQ section of the web site to see if this is a known problem that can be easily fixed.
3. **Report all problems.** If this is a new problem, the PI or Operator should report the problem through the Problem Report page of the website. Note that even if you are able to obtain direct help with the problem from someone in the Center, we still ask that you report the problem and how it was fixed. This will benefit everyone and provide us with a better record of how often problems occur.

Adjusting the billing for technical problems

If technical problems arise with the scanner, there will of course be no charge for lost time. It is important to remember that the scheduling database is also the billing database, so this needs to be adjusted. To do this, the PI should report the technical problem through the web-scheduling system within **72** hours of the incident.

Our policy is that we will not adjust the billing for: 1) technical problems that have not been reported by the PI or Operator within 72 hours; 2) time lost due to problems that are the responsibility of the PI or Operator (e.g., if the subject doesn’t show, the PI’s computer fails, or the Operator uses the wrong pulse sequence parameters); 3) minor system glitches that do not prevent completion of the scan session (e.g. the scan could be completed after a TPS reset). Note that the physiological monitoring equipment is **not** considered standard equipment and is provided free of charge as an optional service that may be of benefit; billing will not be adjusted because of issues with this monitoring equipment. Please note that the free pilot hours provided to each account (see above) are absorbed by the Center in an effort to help the PI deal with the various problems associated with getting good data, such as optimization of their techniques and minor system glitches. The hours used will be adjusted only if there is a major failure of the functionality of the 3T MRI system that prevents completion of the scan session.

Pilot studies

There are no free pilot hours available at the start of a new project. Instead, free pilot hours will be awarded monthly in accordance with the cancellation policy described above.

Yearly report

Each year the IRB or IACUC approval for a project will need to be renewed and current copies of these approvals must be email to cfmri@ucsd.edu. At the time of renewal we also ask that each PI submit a brief report on the progress of the study. This should include the number of studies performed, results to date, and any problems encountered.