

UCSD Center for Functional MRI Policies and Procedures for Using the 3T Scanners

(Last Updated: 10/05/11)

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). Investigators not employed by UCSD will require that their home institution establish a standard License and Equipment Use Agreement with UCSD in order to apply for access to scan.

Summary of Key Steps

1. Submit an online proposal to one of the two Proposal Review Committees (see below) describing the project and identifying a Certified Scanner Operator to run the study.
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 the Investigator may schedule time through the online scheduler (referred to below as the Webschedule system).
4. Invoices are generated monthly based on scheduled time. Current rates are listed in **Appendix 1** below.

These steps are described in more detail below. The goal is to keep these procedures simple and straightforward, but they are subject to change when required. 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

The Center has two Proposal Review Committees:

Human Neuroscience Committee - handles only human neuroscience research proposals and is headed by the Chair of the Human Neuroscience Committee.

Bioimaging Committee - handles all other research proposals and is headed by the Chair of the Bioimaging committee.

Prior to proposal submission, investigators are encouraged to discuss their 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 the Investigator already has a 3T Webschedule account, he/she may login and click on the **Manage My Proposals** button (Main menu). If the Investigator does not yet have an account please send an email 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 the selection.
 - a) General Information.
 - b) Operator Information (complete only if Investigator will not be using the Center Technologist, but will instead use a different Certified Scanner Operator).
 - 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 complete all required fields.
- 4) The session will log out after 30 minutes of idle time. Please click on the **Save for Later** button if all the required forms cannot be completed in one sitting. The proposal will remain editable until the **Final Submit** button is clicked 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 the proposal, and click on Edit Saved Proposal.
- 6) Once the Final Submit button is clicked, the proposal will be sent to the Human Neuroscience or Bioimaging 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 relevant committee approves the proposal, an administrative review will be performed to insure that all required certifications are on file. Once this review is complete 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 committee review at the CFMRI, all protocols must also have appropriate UCSD IRB or IACUC approvals. Proposals for human studies can be reviewed by the Neuroscience 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. A copy of the letter of approval from the appropriate UCSD review board 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 covering scanner operation and safety is run by the Center and leads to certification as an independent Certified 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 the right to withhold or withdraw certification is at the discretion of the CFMRI Director. Certification will expire if an 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 information on operator eligibility and responsibilities is available at (<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 in the Center's system 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 and Pilot Hours

Note: These policies apply to projects from UCSD or non-profit research institutions that have a License and Equipment Use Agreement in place with UCSD. Cancellation fees can be applied to other projects at the discretion of the Center.

1. Lost Hours: *Lost hours are defined 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 first PI is responsible for lost hours attributed to that project. Each month the responsible lost hours will be tallied for each project.

2. Paid Hours: *Hours actually paid for.* Each month the Paid Hours used by each project will also be tallied.

3. Pilot Hours: *Bonus Hours calculated at a rate of 25% of Paid Hours.* The Center will calculate the number of potential Pilot Hours at a rate of 25% of Paid 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. potential Pilot Hours – Lost Hours = net Pilot Hours).

4. Rewards and Penalties: The Center has currently targeted an acceptable level of Lost Hours as 25% of the Paid Hours, and this level is subject to change. 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 deducted from the PI's Pilot Hours account.

Examples:

Paid Hours of Scanner time	Max Lost Hours (25% of Paid Hours)	Actual Lost Hours	Pilot Hours Awarded/Deducted
32	8	0	8
32	8	5	3
32	8	10	-2

5. 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 the Center 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 the Center may find it necessary to introduce new policies limiting the PI's scheduling privileges.

6. Scheduling Pilot Hours. The Center will set up a separate Pilot Hour account on the Webschedule system for each PI project. To schedule Pilot Hours the PI should use the project identified with the prefix "Pilot" before the project name.

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. The best procedure for avoiding lost time due to technical problems is:

1. **Check the Webschedule system before arriving.** Before arriving for a study, the PI and/or the Operator should login to the Webschedule system and check the current reported problems (if any) that might preclude their planned study. Scheduled time will be moved by Center staff to the technical difficulty category so that automated billing does not occur.
2. **Check the FAQ's on the CFMRI web site.** If a technical problem is encountered after the study begins, 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 Webschedule system. Note that even if direct help for the problem is obtained from someone in the Center, the problem still must be reported, including how it was fixed. This benefits everyone and provides a better record of how often problems occur.

Billing Adjustments for Technical Problems

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

The Center's policy is that billing will not be adjusted 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 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, Pilot Hours will be awarded monthly in accordance with the cancellation policy described above.

Annual Report

Each year the IRB or IACUC approval for a project will need to be renewed and current copies of these approvals must be emailed 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.

APPENDIX 1

CFMRI - Scanner Usage Rates

The current UCSD Recharge Rates and Outsider Users' Rates are as follows:

Note that these rates are subject to change.

Service Description	Unit	3/1/2007	9/1/2011	7/1/2012	7/1/2013
UCSD Recharge Rates					
3T MRI Scanner for humans	Hour	\$ 525	\$ 551	\$ 579	\$ 608
3T MRI Scanner for humans, with Center Technical Specialist	Hour	\$ 575	\$ 614	\$ 646	\$ 679
Outside Users' Rates					
3T MRI Scanner for humans	Hour	\$ 761	\$ 799	\$ 840	\$ 882
3T MRI Scanner for humans, with Center Technical Specialist	Hour	\$ 834	\$ 890	\$ 937	\$ 985