

CENTER FOR COGNITIVE AND BEHAVIORAL BRAIN IMAGING

MISSION, ADMINISTRATIVE STRUCTURE

and REGULATIONS

MISSION

The Center for Cognitive and Behavioral Brain Imaging is dedicated to pursuing structural and functional magnetic resonance studies using state-of-the-art techniques, to contributing to the development of future brain imaging modalities, and to disseminate knowledge about brain, mind, and imaging to students and the public.

ADMINISTRATIVE STRUCTURE AND STAFF

The administrative team encompasses a Director, a Management Committee, a Technical Committee, and a Proposal Review Committee. The Director and all committee members are OSU faculty and staff who contribute part of their effort to the Center. The staff also encompasses a full-time MRI Physics Manager, a full-time Facility Specialist, a full-time MRI Technologist, and a part-time Administrative Assistant.

The administrative team is as follows:

Director: Dr. Zhong-Lin Lu

MRI Physics Manager: Dr. Jinghua Wang

Facility Specialist: Dr. Xiangrui Li

MRI Technologist: Ms. Deborah Hardesty

Business Manager: Ms. Stephanie Fowler

Oversight Committee: The committee is charged with setting the general directions and evaluating the performance of the Center. Appointed by the Dean of the college and composed of ex officio and faculty members from different units in the College, the committee will meet once to twice a year.

Dr. Jan Box-Steffensmeier, Dean, Social and Behavioral Sciences,
College of Arts and Sciences

Dr. Robert A. Fox, Chair, Department of Speech and Hearing Science

Dr. Mary Fristad, Department of Psychiatry and Mental Health

Dr. Deborah Larsen, Director School of Allied Medical Professions, Associate Dean,
College of Medicine, Associate Vice President for Health Sciences

Dr. Andrew Leber, Department of Psychology

Dr. Richard E. Petty, Department of Psychology

Management Committee: *The committee is charged with setting and monitoring policy, including guidelines for day-to-day operation. The committee will meet once a month. Decisions will be reached as much as possible by consensus. When no consensus can be reached the decision will be made by simple majority.*

Dr. Julie Golomb, Psychology
Dr. Zhong-Lin Lu (Chair), Psychology/CCBBI
Dr. Aleix Martinez, Electrical and Computer Engineering
Dr. Stephen Page, Human Development and Family Science
Dr. Stephen Petrill, Education and Human Ecology
Dr. Ruchika Prakash, Psychology
Dr. Per Sederberg, Psychology

Technical Committee: *The committee is charged with the monitoring of equipment-related issues including maintenance and operation of the magnet. The committee will meet once a month. Achieving maximum safety for users, subjects and staff is the main goal of the committee's activities.*

Dr. Xiangrui Li, CCBBI
Dr. Jinghua Wang, CCBBI
Deborah Hardesty, CCBBI

Proposal Review Committee: *The committee is charged with evaluating the quality and feasibility of proposed studies and allocation of scanner time. The committee will meet when necessary at the discretion of the chair. External reviewers will be added as necessary. **Members representing the broad user community will be appointed to the committee as expertise develops.***

Dr. Julie Golomb, Psychology
Dr. Zhong-Lin Lu (Chair), Psychology/CCBBI
Dr. Aleix Martinez, Electrical and Computer Engineering
Dr. Stephen Page, Human Development and Family Science
Dr. Stephen Petrill, Education and Human Ecology
Dr. Ruchika Prakash, Psychology
Dr. Per Sederberg, Psychology

Fellows: *The Center will grant Fellow status to a limited group of faculty, from OSU or from other institutions. The fellows will be nominated by members of the Center and be approved by the Management Committee. The fellows will receive information about the Center and be invited to meetings and seminars held at the Center.*

External Advisory Board: *A three person External Advisory Board is anticipated to conduct reviews of the Center's activity at regular intervals and to provide guidance.*

In addition to the meetings of standing committees, the Center will schedule meetings for investigators and staff, aimed at presenting ongoing work. The Center also anticipates holding some public meetings, open to scientific and lay communities, aimed at discharging the Center's wider educational mission.

REGULATIONS

The safety of visitors to the Center, whether or not subjects in a study, and of the Center staff is of paramount importance and takes precedence over any research considerations and over the convenience of any investigator. For this reason, the Center has prepared a manual of safety procedures (see Appendix I), which is strictly adhered to at all times. The Technical Committee ensures compliance with these procedures and updates the manual as needed and, in any case, reviews it annually. All personnel working at the Center must participate, once a year, in safety training.

The Center is prepared to study, as part of a research protocol, normal adults, elderly subjects, adolescents, children, and patients with stable conditions compatible with MR imaging. At the moment, there is no provision for the use of contrast materials or for sedation. None of the studies to be conducted at the Center have a clinical purpose and there is no medical or radiological staff on the premises. In recognition of the fact that, on occasion, incidental findings may need to be investigated medically, and in a best-faith effort to inform research subjects of that possibility, the policy of the Center for Cognitive and Behavioral Brain Imaging is to have all structural scans of normal research subjects reviewed by a neuroradiologist.

Subject Identification

Subjects to be scanned in the Center for Cognitive and Behavioral Brain Imaging are given a code number followed by the initials of the investigator. This is the "name" to be entered during patient registration on the MR console. Neither actual name nor any other identifying information is to be entered in the MR computer file, to make certain that subject privacy can be fully observed. Individual investigators are responsible for keeping records in order to identify the raw data collected in the Center.

Subject Procedures

Each investigator is responsible for obtaining IRB approval for his/her study and for filing the approval document with the Center Administrative Assistant. Investigators are also responsible for explaining informed consent procedures to every subject and for having every subject sign the informed consent form. No subject can be scanned without a valid informed consent form having been signed. The signed consent forms must be presented prior to the scan being performed and a copy must be given to the Center for secure filing. The code number assigned to the study will be added to the form.

A MR safety screening will also be performed by the Center staff and will be signed by the subject and by the MR personnel performing the screening. The screening results may preclude a subject from participating in a study. This screening will be filed together with the informed consent form. For subjects with a history of cerebro-vascular disease, neurosurgical procedures, or accidents, in connection with which metallic objects or particles might have been lodged inside soft tissue of the brain or eye, it is necessary to submit a medical report, signed by a physician, stating that it is safe for the subject to undergo MRI. This report needs to be filed together with the signed IRB and screening questionnaire.

Each investigator is responsible for bringing along one MRI User or MRI operator (see Safety Manual for definition) to help perform the actual study (for studies conducted during working hours), or two MRI operators (for studies conducted during off hours, one of them being certified to operate the scanner at off-hours). Certification in this capacity requires taking the course offered at the Center or equivalent. Certification requirements are detailed in Appendix II.

Fee Structure

The MRI Technologist will help perform scans conducted in the Center without extra charge.

Pilot studies: Pilot studies are meant to produce preliminary results to facilitate the submission of grant requests, they are not meant to produce, by themselves, publishable results. A maximum of 10 hours of free pilot studies per investigator / per year may be granted after submission and approval of a proposal to the Proposal Review Committee.

Funded research with OSU accounts: A fee of \$550.00 per hour is charged for funded research for studies performed between 8:00 am and 5:00 pm, on working days. When studies require more than one hour but less than 2, an additional fee will be assessed in increments of \$125.00 per 15 minutes.

Funded research with non-OSU accounts: An overhead fee (currently 52.5%) will be added to OSU rates for qualified external researchers holding a funded protocol.

Research Proposals

Proposals are to be submitted to the Proposal Review Committee. Each pilot proposal will be reviewed by three referees from within or outside the committee as appropriate. Requests for **pilot studies** are to be accompanied by a brief description of the proposed study in which the hypothesis is clearly stated along with a rationale, description of the subjects to be scanned, their number, and the specification of the protocol to be used.

There also should be a brief statement regarding the type of analysis to be performed and a mention of the source from which the investigator plans to seek funding once the pilot studies have been completed. The proposal also must include the names of any personnel involved in obtaining MR data, and their qualification to run the study. Proposals should be, on average, 3 to 4 (double spaced) pages in length.

Approval of a proposal depends on its feasibility, merit and availability of time on the magnet, as assessed by the Committee, and on securing IRB approval by the responsible investigator (see Appendix III).

Requests for **approved and funded studies** also require a brief proposal, similar to the one outlined above, to assist the Committee in deciding if the Center is equipped to perform the proposed studies (see Appendix IV).

Before submitting an external grant request that involves MRI scans, the investigators are urged to contact the Director or Associate Director and make certain the Center is prepared to commit the resources necessary for the particular study. The Center will not be required to honor scanning requests for funded studies unless a prior agreement was reached between the investigator and the Director or Associate Director of the Center.

Scheduling of Studies

Once a study is approved by the committee, the scheduling of the date and time for each study is accomplished on-line by the investigators (Appendix V). No scheduling distinction is made between free pilot studies and revenue studies.

All scheduling is coordinated by the MRI Technologist, Deborah Hardesty. To cancel a reservation or amend an erroneously entered time slot, please contact the Technologist for assistance with the schedule.