

## **Centre for Neuroscience Studies**

### **fMRI Facility**

#### **Standard Operating Procedure #01**

#### **Authorization for Access to the 3T MRI Facility**

### **1. Introduction**

- i. The 3T MRI Facility is used primarily for in-vivo studies of human and animal structure and function. These studies include assessment of metabolism and physiology, cognitive function and vascular dynamics, not only in normal and research patient populations, but also in in-vitro and animal models using a variety of advanced nuclear magnetic resonance imaging and spectroscopy techniques. The facility resources are available to peer-reviewed grant funded scientific collaborators with appropriate Review Ethics Board protocols in place, see SOP# 04 “New Protocols and Ethics Procedures”.
- ii. Research involving Magnetic Resonance Imaging (MRI) at high magnetic field strengths present unique hazards to both research subjects and individuals working within and around the MRI system. Consequently, the potential for serious personal injury is present due to the sheer size and strength of the static magnetic field along with the flexibility of the research system and associated peripheral hardware.
- iii. The static magnetic field in the 3T MRI facility is always present. It is important that all those entering the facility be aware of the presence of the field, as it cannot be detected by one person in any way, i.e. magnetic fields can not be felt, seen or smelled.

### **2. Entry into the 3T MRI facility is restricted to the following:**

- i. Operators of the 3T MRI Scanner that have been trained according to standards in SOP# 03 “Safety and Operator Training Procedures”.
- ii. Investigators that are involved in research programs at the 3T MRI facility, and have complied with the regulations stated in SOP# 03 “Safety and Operator Training Procedures”.
- iii. Members of the groups of investigators, herein after referred to as Experimental Support Personnel, that are necessary to the successful execution and completion of the research project, and have complied with the regulations stated in SOP# 03 “Safety and Operator Training Procedures”.
- iv. Visitors accompanied by authorized personnel that have complied with the procedures listed in SOP# 02 “3T MRI Facility Visitor Approval Policy”.
- v. Volunteers and patients participating in studies and going in the magnet, that have complied with the regulations stated below as well as with regulations stated in SOP# 04 “New Protocols and Ethics Procedures”. Volunteers and patients are not required to read SOP# 04. It is the responsibility of the investigator to ensure that all

studies and corresponding volunteers/patients comply with regulations set out by the Review Ethics Board.

- vi. Essential building services personnel required for maintenance of the 3T MRI Facility and technical support for the computer systems in the facility.
- vii. All security access is subject to the discretion of the Facility Director.

### **3. Security Access – Procedure**

- i. All those who would like to obtain and maintain security access to the Facility must complete the safety training as set out by the Facility, and complete a Safety Checklist: “MAGNETIC RESONANCE (MR) IMAGING SAFETY CHECKLIST FOR INDIVIDUALS”. See SOP# 03 “Safety and Operator Training Procedures”.
- ii. Operators require security access, and must complete the safety and operator training listed in SOP# 03 “Safety and Operator Training Procedures”.
- iii. Security Access will not be granted to anyone having any medical devices, implants or objects as listed in SOP# 05 “General Safety Procedures”.
- iv. If a person displays inappropriate and/or unsafe behavior in the Facility he/she can be denied access by the Operator or Facility Director. Reinstatement of security access can only then be granted by the Facility Management Committee.

### **4. Entry Regulations**

- i. Visitors do not require security access to the 3T MRI Facility. They must follow the entry regulations listed in SOP# 02 “3T MRI Facility Visitor Approval Policy”.
- ii. Volunteers/patients participating in research projects do not require security access to the facility, and are required to complete the Safety Checklist: “MAGNETIC RESONANCE (MR) IMAGING SAFETY CHECKLIST FOR RESEARCH SUBJECTS” and screening form provided by the investigator of the study in question. The Safety Checklist will be that approved by the Facility Management Committee, and the screening form will comply with the Research Ethics Board protocol in question. See SOP# 04 “New Protocols and Ethics Procedures”.

### **5. Essential Access**

- i. All essential building services personnel must not enter the magnet room unless accompanied by the Facility Director or MR Technologist. Essential building personnel are not permitted to bring visitors into the 3T MRI Facility.
- ii. Cleaning and maintenance of the Magnet Room will be performed as part of the duties of the MR Technologist.