



**3T/7T MRI FACILITY**

<b>SOP Number:</b>	<b>130-01</b>
<b>Title</b>	<b>New Protocols and Ethics</b>

<b>Revision Chronology</b>		
<b>Version Number</b>	<b>Date</b>	<b>Changes</b>
<b>130.01</b>	<b>01 March 2010</b>	<b>Pilot Time information added</b>

**Facility Manager Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**ROBARTS RESEARCH INSTITUTE**  
**CENTRE FOR FUNCTIONAL AND METABOLIC MAPPING:**  
**3T/7T MRI FACILITY**

**Standard Operating Procedure #130-01**

**New Protocols and Ethics**

**1. Introduction**

- 1.1. The 3T/7T 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 3T/7T Facility represents a unique national resource for state-of-the-art evaluation of structure and functional activity using a variety of MRI and MRS techniques in a research setting. The facility resources are available to peer-reviewed grant funded scientific collaborators with appropriate Review Ethics Board (REB) protocols in place as explained below. All studies with humans or animals wishing to use the 3T/7T MRI Facility require ethics approval before commencing with data collection.

**2. New Protocols**

- 2.1. An investigator wishing to begin a new study at the 3T/7T MRI Facility must submit a brief summary (less than 2 pages long) of the proposed research to the Director and Facility Manager which includes details of the experimental protocol. The report will be kept on file with the Facility Manager.
- 2.1.1. The report can be submitted online by completing the 3T/7T New Study Request form available at <http://cfmm.robarts.ca/3t-7t-new-study-request>.
- 2.2. Investigators may request Pilot Time on the 3T/7T New Study Request form. Pilot Time is the booking of resources that would otherwise be billable, for the purpose of protocol development and establishing preliminary study parameters.
- 2.2.1. Activities that can be claimed as pilot time:
- 2.2.1.1. Testing of new or modified peripheral devices in the MR environment.
- 2.2.1.2. Establishing the physical compatibility of study equipment within the MR environment.
- 2.2.1.3. Optimization of non-standard imaging protocols.
- 2.2.1.4. Up to one hour of data collection with the complete MR and peripheral hardware setup (ie. a “dry run” for testing of triggers and timing).
- 2.2.2. Restrictions on Pilot Time:
- 2.2.2.1. A maximum of 6 hours of pilot time may be granted, with a maximum of one hour of actual data collection. Time in excess of this will be billed at the standard billing rate.
- 2.3. Upon approval of the study the investigator may meet with the Facility Manager / Director / Head MRI Technologist to discuss appropriate experimental details. If pilot time has been

requested, the Facility Manager and Head MRI Technologist will meet to discuss the study and determine a suitable amount of pilot time. The investigator will be notified as to the amount of pilot time granted. If, after using this initial time, the investigator requires additional pilot time, it may be granted at the discretion of the Head MRI Technologist, up to a maximum of 6 hours total.

- 2.4. Approval of the study must then be obtained through the University of Western Ontario's Review Ethics Board (UWO-REB) before the study may commence, as explained in Section 3 below. Once approval has been granted the investigator must provide the facility with a copy of the ethics protocol (preferably in electronic format) as well as the letter of approval.
- 2.5. Scan time may be approved for preliminary data acquisition if it is required to support a grant application. Investigators requiring such time may apply online by completing the 3T/7T New Study Request form available at <http://cfmm.robarts.ca/3t-7t-new-study-request>. Each application will be reviewed, and the number of hours granted will be based upon the type and amount of data required.

### 3. **Required Ethics**

- 3.1. All research involving humans or animals by Robarts employees or their collaborators must be approved by a UWO-sanctioned review board. For further details pertaining to specific REB guidelines please refer to <http://www.uwo.ca/research/ethics>.
- 3.2. Specific 3T/7T hardware and software development involving human subjects requires UWO institutional ethics approval. The 3T/7T MRI Facility has obtained such approval, see "3T/7T MRI RF Hardware and Software Development", located in the "Red Binder". Exposure of these subjects must be monitored and accurately logged within the appropriate data sheets (see "Purple Binder") in order to file annual surveillance reports to the UWO-REB.