

**SOP 03**  
**Safety and Operator Training Procedures**

**MRI Facility**

**Centre for Neuroscience Studies**

**July 2021**

**Approved: July 12, 2021**  
**Next Revision: July, 2023**

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## SUMMARY

- i. 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 associate peripheral hardware.
- ii. 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 our person in any way - i.e., magnetic fields cannot be felt, seen, or smelled.
- iii. Due to the nature of the MR environment and the many safety risks present, all those wishing to obtain security access are required to follow the procedures specified below in section 2. All operators of the 3T MRI system must be authorized by the facility and are required to follow the procedures specified below in sections 2 and 3.
- iv. Training of operators is very rare at the MR facility, and we strongly encourage our users to take advantage of our experienced MRI staff to run their experiments. Training of operators is at the discretion of the MR Manager and MR Lead

## TRAINING FOR INDIVIDUALS WITH 3T SECURITY ACCESS

- i. Individuals wishing to obtain security access to the facility are required to read all SOP's and to produce their signature declaring that they have read, understood, and plan to follow all of the guidelines set in place by the SOPs (see the COMPLIANCE STATEMENT at <http://neuroscience.queensu.ca/facilities/mri-facility#forms>), and must have completed the Safety Checklist: "MAGNETIC RESONANCE (MR) IMAGING SAFETY CHECKLIST FOR INDIVIDUALS" (see: <http://neuroscience.queensu.ca/facilities/mri-facility#forms>).
- ii. It is mandatory that all individuals with 3T security access participate and complete the 3T MRI Facility Safety Training course. The course will be held as required by the MR Manager.
- iii. Security access is valid for 1-year from the date of the Safety Training course if the person has not been scanning in the facility, otherwise is valid for 1-year from the date of last facility use.

## OPERATOR TRAINING

- i. Operators are required to read all SOP's and to produce their signature declaring that they have read, understood and plan to follow all of the guidelines set in place by the SOPs (see the COMPLIANCE STATEMENT at <http://neuroscience.queensu.ca/facilities/mri-facility#forms>), and must have completed the Safety Checklist: "MAGNETIC RESONANCE (MR) IMAGING SAFETY CHECKLIST FOR INDIVIDUALS" (see: <http://neuroscience.queensu.ca/facilities/mri-facility#forms>).
- ii. Due to the responsibility incurred when operating the scanner, and the importance of the safety of the volunteer/patient and experimental support personnel, all operators are required to obtain and hold a valid Emergency First Aid Training certificate and CPR Level A Training certificate.
- iii. It is mandatory that all operators participate and complete the 3T MRI Facility Safety Training course. The course will be held as required by the MR Manager.
- iv. It is the responsibility of the MR Facility to ensure that only authorized personnel operate the 3T MRI. Operators are therefore required to complete extensive training of the system and its components to ensure the wellbeing of the volunteers, patients, and experimental support staff as well as the MRI system itself. This training will be held onsite with extent determined by the MR Manager and MR Lead. Personnel will receive operator training only at the discretion of the MR Manager and MR Lead. An example of the extent of training required is outlined in SOP 17 – Student Run MRI Experiments.
- v. All relevant documentation and information pertaining to operator status will be kept with the MR Manager in a secured file cabinet and held in strict confidence.

## AUTHORIZED SIGNATURES

Prepared by:



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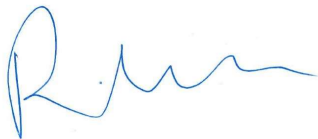
**Donald Brien**  
Manager, CNS MRI Facility

July 12, 2021

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Date

Approved by:



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**Roumen Milev, MD, PhD, FRCPsych, FRCPC**  
Director, Centre for Neuroscience Studies

July 12, 2021

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Date