

**Magnetic Resonance Research Center  
University of Pittsburgh  
MRRC 007: COVID-19 MRRC Research Operations**

**PURPOSE**

The purpose of this Standard Operating Procedure (SOP) of the Magnetic Resonance Research Center (MRRC) is to outline the operations of MRRC in response to COVID-19.

**POLICY**

The policy addresses the operations of the center and the services to the research imaging community, as well as operations to mitigate the potential spread of the virus.

**COVID -19 Status**

While the expectation is that the participants are not actively infected with COVID-19, the MRRC are following University safety guidelines that assume anyone could be infected and asymptomatic. Running known actively infected individuals requires substantially more safeguards (higher level PPE) and more cleaning time. Thus, at this time it is not feasible to include these individuals. Similarly, MRRC faculty and staff, as well as faculty and staff from the user community may not come on site if they may be actively infected with COVID-19.

**MRRC Operation and Schedule**

- The MRRC is operating with a normal schedule on all 5 systems. Each system will be cleaned to follow the cleaning effectiveness of the cleaning product (i.e. 1-4 minutes) between each scan. The start of the table time for each scan maybe delayed a few minutes due to cleaning the magnet and frequently touched surfaces.
- Fixed slots will be assigned on a two-week alternating schedule (i.e., odd and even weeks). The five-day rule will apply, and users may schedule slots that are canceled or fixed slot available on an *ad hoc* basis.
- The waiting area is open to allow research staff and their participant to wait for MRRC staff to screen and begin their scan. Users are not to enter Zone II, III & IV (Screening area, Control Room Areas/Magnet room), to inform staff of arrival or check in to see how much longer. This is for participant and researcher confidentiality.
- Users can schedule available time on any of the systems, 32 channel head coil, practice room(s), consent room, medical suite, or NIRS lab/Brian Vision through the online scheduling system.
- A phone number of the research staff conducting the study visit at the MR center is required, this must be added to the participant information through the scheduling system. Please ensure contact information is for the person coming to the MRRC for that date and time. Instructions on how to submit participant information and add contact information are in appendix B of this document.

**Scheduling for Available by Request, Fixed Slot Available or Cancel Time Requests**

- Before requesting a slot, ensure the participant is identified. Look at the MR schedule for fixed slot available (light blue) or canceled (red) slots. Complete and correctly submitted schedule requests are on a first come, first served basis. Directions for how to submit a request can be found on the Appendix B. The request will be sent to the MRRC email service account and will be processed, if the request is unable to be scheduled the MRRC will contact the user.
- Scheduling requests will be promptly reviewed and confirmed Monday through Friday during the MRRC business hours 8am to 4pm. Requests submitted after 2:30pm will be addressed the following business day, during business hours.
- Once the request is approved, an automatic email is sent to the user. **The user will have 24 hours from (8am-4pm, M-F) to submit the participant information to confirm the slot. If the participant information is not submitted the slot will be canceled. The users associated with that project code will receive an automatic email notification of the cancelation with a reason why the slot was canceled.**

- Once the slot is confirmed (yellow) it should not be edited. If the user edits the slot, it will revert the status to submitted. The user will then need to resubmit the participant information to confirm the slot. If this is not done the slot canceled or released back to the community.
- Users must check the schedule the day of their scan to ensure it is confirmed. Any questions or concerns can be addressed by calling (412-647-2816) or email.

### **Operating procedures for Scans**

#### **Prior to arrival at the MRRC**

- The research staff must contact their participants 24 hours prior to the scan and complete the COVID-19 screening (see Appendix A). If the participant/patient answers yes to any of the questions the scan **must** be canceled and rescheduled.
- Users are requested to arrive 30 minutes before their table time if not using an ancillary area. Please have a seat in the waiting area and call 412-647-9701 or use the red phone to let us know you have arrived. The MRRC staff will greet users in the waiting when we are ready to begin the research activities. Users are not to enter Zone II, III & IV (Screening area, Control Room Areas/Magnet room), to inform staff of arrival or check in to see how much longer. This is for participant and researcher confidentiality. NOTE: If an ancillary room is scheduled please arrive at the scheduled times. If another user is using the area and it is not scheduled, please call and the MRRC staff will assist in resolving the scheduling conflict.
- All study faculty or staff and the research participant **must** wear a face covering while at the MRRC.
- Patients and participants are encouraged to wear MRI safe clothing to their scan, this will limit the need to utilize the MRRC changing rooms and prevent the potential spread of COVID-19.

#### **Arrival at the MRRC**

- Upon arrival at the MRRC, research staff and their participant may wait in the waiting area and call 412-647-9701 or use the red phone to let the MRRC they have arrived OR head straight to the ancillary area that was scheduled. When the MRRC staff is ready they will greet the Research team and participant to complete MRI Safety Screening, any research testing, and begin the MRI.

#### **Imaging Study**

- All staff interacting (MRRC staff and research staff) with a participant while unmasked **will** wear a face shield in addition to a mask. Interactions with an unmasked participant in the magnet room must be limited to less than 15 minutes.
- Participants/patients will wear a mask into the magnet room. We encourage the use of a mask while in the magnet. Studies who require that a mask not be used during scanning, will take it off after being positioned in the scanner and will put it back on immediately when coming out of the scanner. An MRI safe mask will be available and provided by the MRRC for those not having one.
- At the completion of the scan the participant will be escorted out wearing a mask and if needed be directed to the dressing room.
- If time is needed for cleaning due to contamination, the MR staff will cancel the following slot and contact the research staff using the contact information provided in participant safety form/MRRC schedule.

#### **Billing**

The MRRC hourly charge is \$607 per hour or \$303.5 per half-hour, used time is billed in 30 minute increments.

Strict use of slot times will be enforced (i.e. if the slot is scheduled from 8am-9am, at 9am the study will be required to stop and the participant off the table, to ensure 30 minutes between the next scan). If a user runs over their scheduled time an additional half hour of scan time will be billed. Consideration will be given on a case by case basis. If there are challenges after sequence (s) have been started with the research participant or the user's equipment the MRRC will only bill for the time used in 30 minute increments. Users will not be billed for canceled time, MRRC equipment failure, or challenges with the research participant prior to sequences being ran.

- Scheduled slot time includes:
  - The time to position the participant on the bed and connect all relevant stimulation and physiological recording hardware
  - The time spent communicating with the participant (i.e. instructions for tasks, checking in with the participant etc.)
  - any repeated scans due to participant motion.
  - The time between scans during which the MRI system performs sequence specific calibrations.
  - Any time required to remove the participant from the magnet and exit the suite. Thus, depending on the protocol and participant management.

#### Data Review:

Users will have 4 months from the date their scan was completed to complete quality control and contact the MRRC about re-running a scan or sequences. After four months the MRRC is not responsible for data that the user has not reviewed.

#### Staffing

- Contact tracing will be recorded on the participant safety information sheet, to track users that come to the MRRC and the staff they interact with.
- **Only one member from the research staff and the participant will be routinely allowed at the MRRC.** If more than 2 members of the research team need to be present to complete the scan for safety purposes, the investigator must let the MRRC know.
- Staff members must adhere to the maximum amount of people in an area, wear a face covering, and social distance (please refer to room occupancy and description section).
- This means no one will accompany the participant other than a faculty or staff member performing/assisting with the study. This is required to minimize the number of individuals at the MRRC at any time given the limited amount of space.
  - For participants under the age of 18 or those who need extra assistance, and additional person may accompany them to the MRRC to assist in screening, once screening is completed, they must wait elsewhere then the MRRC, the waiting room is only for the research staff member and their participant to wait until their table time

#### MRRC Specific Issues

##### Minimize risk of infection spread

- Access to MRRC will be allowed only if:
  - Screening questions are answered in the negative 24 hours before coming to the MRRC.
- Disposable gloves for the study staff will be provided by the MRRC.
- PPE required: mask and gloves will be required for all direct contact interactions between technologists and staff/faculty with participants when at the MRRC. Disposable gloves will be provided by the MRRC. All staff interacting (MRRC staff and research staff) with a participant while unmasked **will** wear a face shield in addition to a mask. Interactions with an unmasked participant in the magnet room must be limited to less than 15 minutes.
- Disinfecting Magnet area: All surfaces (patient bed, coils, magnet bore, stimulus response device etc.) are to be wiped between studies. Wiping is responsibility of technologist who oversaw that study.
- All common areas are to be disinfected following each use. This includes high use areas such as door handles, sinks etc. Wiping is the responsibility of the individual(s) using the room.
- The ancillary rooms (practice rooms, NIRS lab/Brain Vision, and medical room) are to be cleaned by the user. Cleaning supplies (Wipes, paper towels, and spray) are in each area. Failure to clean the ancillary room will be deemed a non-compliance.
- While masking and covid-19 screening required, Saliva samples and testing are not to be completed at the MRRC.

#### Other

MRRC projects that violate this SOP will be sent a written warning by email for the first violation. If there is a second violation the study will be suspended. The investigator will be notified by email, and reported to their department chair and the University of Pittsburgh IRB/UPMC OSPARS Office.

#### **Contact Tracing**

The MRRC center will maintain a database of all participants/patients that are screened and complete a scan, as well as all MR staff and faculty and research staff who are on-site. In the event that someone subsequently tests positive for Covid-19 the MRRC can alert all MRRC Staff/Faculty and research staff that came in contact of the potential risk and to follow CDC guidelines. It is the responsibility of the PI to inform the research participants.

#### **Room Occupancy and Description**

Rooms at the MRRC are listed below according room number. Access is grouped by 3 areas (i.e. MRRC staff, study staff and participants) and the maximum occupancy is noted. For special circumstances, notes are listed. Rooms highlighted in Red are closed during the initial start-up phase. Blue highlights indicate one-person faculty/staff offices while green indicate common areas for MRRC staff and faculty. Orange areas indicate areas occupied by other programs. Yellow indicates areas where MRRC staff/faculty, study staff and participants interact. Some of these areas e.g. control rooms (closed to participants) and equipment rooms (closed to participants and study staff) are grouped together for convenience since the maximum occupancy is specified for the imaging suites as opposed to a room by room count.

Room #	Description	sq ft	ACCESS			MAX	Notes
			MRRC Staff	Study Staff	Participants	Occupancy	
800	Faculty Office	108	Yes	No	No	1	2
801	Restroom	54	Yes	Yes	Yes	1	
801.22	Service closet	100	No	No	No		
801.33	Service closet						
802.33	service closet						
804	Waiting Room Participant/Patient	286	Yes	Yes	Yes	6	3
805	Screening	118	Yes	Yes	Yes	2	
806	NIRS/Brain Vision	152	No	Yes	Yes	2	6, 8
807	Restroom	34	Yes	Yes	Yes	1	
808	Practice Prisma 1	86	Yes	Yes	Yes	2	
808.1	Consenting	116	Yes	Yes	Yes	2	3
808.2	Filing/Storage	88	Yes	No	No	1	
812	Procedure/Recovery	215	Yes	No	No	3	1,8
815	Bathroom	67	Yes	No	No	1	
816	Hallway/Storage	534	Yes	No	No	NA	
817	Admin Office	91	Yes	No	No	1	2
818	Conference Rooms	187	Yes	Yes	No	4	
822.1	Faculty Office	129	Yes	No	No	1	2
822	Faculty Office	193	Yes	No	No	1	2
824	Faculty Office	129	Yes	No	No	1	2
825	Lounge/Kitchen	285	Yes	No	No	3	
825.1	Bathroom	46	Yes	No	No	1	
825.2	Staff Changing Room	98	Yes	No	No	1	
826	Faculty Office	124	Yes	No	No	1	2
828	Faculty Office	130	Yes	No	No	1	2
833.1	Prisma 1 & MMR Changing room	49	Yes	Yes	Yes	1	
830	Faculty Office	143	Yes	No	No	1	2

Room #	Description	sq ft	ACCESS			MAX	Notes
			MRRC Staff	Study Staff	Participants	Occupancy	
<b>PET/MRI Suite</b>						<b>4</b>	<b>3,7,8</b>
834	Control Room	NA	Yes	Yes	No		
832	Magnet Room	NA	Yes	Yes	Yes		
813	Equipment Room	NA	Yes	No	No		
834.1	Uptake Room	NA	Yes	Yes	Yes		
835	Staff Temporary Waiting	71	Yes	Yes	No	1	
836	Prisma 2 Changing Room		Yes	Yes	Yes	1	
836a	Simulator Room	360	No	No	No	2	
<b>Prisma 1 Suite</b>						<b>4</b>	<b>3,8</b>
838	Control Room	310	Yes	Yes	No		
840	Magnet Room	751	Yes	Yes	Yes		
836	Equipment Room and Servers	804	Yes	No	No		
838.1	Staff Office	75	Yes	No	No	1	2
<b>Prisma 2 Suite</b>			<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>3</b>	<b>3,8</b>
839	Control Room	136	Yes	Yes	No		
841	Magnet Room	449	Yes	Yes	Yes		
839.1	Equipment Room	138	Yes	No	No		
842	Chemistry Lab	650	No	No	No		5
842.1	Chemistry Lab	201	No	No	No		5
844	PET	359	No	No	No		4
844.1	PET	270	No	No	No		4
846	Staff Office	81	Yes	No	No	1	2
849	Filing/Storage	80	Yes	No	No	1	
851	Postdoc Area	366	Yes	No	No	3	
855	Practice Room Prisma 2	262	Yes	Yes	Yes	3	
860	Electronics Laboratory	471	Yes	No	No	2	
860.1	Machine Shop	168	Yes	No	No	1	

Room #	Description	sq ft	ACCESS			MAX	Notes
			MRRC Staff	Study Staff	Participants	Occupancy	
862	<b>Prisma 3 Suite</b>					<b>7</b>	<b>3,8</b>
	Control Room	169	Yes	Yes	No	2	
	Magnet Room	536	Yes	Yes	Yes	1	
862.1	Equipment Room	293	Yes	No	No		
	Practice Room	244	Yes	Yes	Yes	2	
862.2	Interview	122	Yes	Yes	Yes	2	
	Changing Room	53	Yes	Yes	Yes		
864	Staff Office	141	Yes	No	No	2	2
864.2	Staff Office	90	Yes	No	No	1	2
864.1	Staff Office	92	Yes	No	No	1	2

#### Notes

In emergencies this room will be used for patient/participant medical care

- 1
  - 2
  - 3
  - 4
  - 5
  - 6
  - 7
  - 8
- Offices are designed for MRRC faculty/staff, infrequently other staff/faculty/visitors may be present.
- Multi-room suite including control room, magnet room, practice room, changing room, equipment room and interview room.
- Space allocated to PET program
- Space allocated to C Anderson lab
- Space allocated for NIRS and scalp EEG
- PET/MRI typically 2 techs are required, i.e. Nuc. Med. For isotope injection and MRI tech for scanning
- Exceptions for the number of people may be made due to training or medical and safety needs for running the study

**APPENDIX A: COVID-19 Screening Questions**

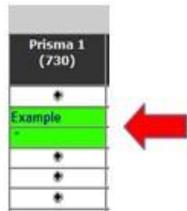
In the last 14 days, have you had:

Fever	___ Yes	___ No
Cough	___ Yes	___ No
Shortness of breath or difficulty breathing	___ Yes	___ No
Diarrhea	___ Yes	___ No
Chills	___ Yes	___ No
Repeated Shaking with Chills	___ Yes	___ No
Muscle pain	___ Yes	___ No
Headache	___ Yes	___ No
Sore Throat	___ Yes	___ No
New Loss of taste or smell	___ Yes	___ No
Have you had contact with known or presumed COVID-19 patient in the last 10 days?	___ Yes	___ No

**If the participant answers Yes to any of the above questions, please cancel your MRI and do not come to the MRRC.**

## How to Add Contact information to the MRRRC Schedule for a slot

**Step 1.** Click on slot



**Step 2.** Single click on Edit Entry



**Step 3.** Add Staff Name + Phone number for the staff completing the research visit under primary contact

**Step 4.** Click Save

# How to Submit an Urgent or Priority Request

**Step 1.** Review the schedule and look for canceled time (red) or fixed slot available (light blue)

MR Schedule									
<< Go To Day Before			Go To Today				Go To Day After		
Time:	mMR (630)	Prisma 1 (730)	32 Channel Head Coil (0)	Prisma 2 (830)	MR 7T (0)	Prisma 3 (0)	Practice Room 1 B-808 (0)	Practice Room 2 B-855 (0)	Practice Room 3 B-862 (0)
06:30am	n/a	n/a	*	n/a	n/a	*	n/a	n/a	n/a
07:00am	"	QA	*	"	"	*	Prisma 1 Available By Request	"	"
07:30am	"	Erickson	*	QA	"	*	Cleaning NOT AVAILABLE	Prisma 2 Available By Request	"
08:00am	"	"	*	Newman	"	*	"	n/a	Prisma 3 Available By Request
08:30am	QA	"	*	"	"	*	"	"	n/a

**Step 2.** Click on Urgent Request/Priority Request

Urgent Request / Priority Request

**Step 3.** Enter required information

### MRRC Priority Request Form

Priority requests are to be processed within two business days.

Request Date: Monday, August 10, 2020 at 09:14 AM

Project Code:

PI Name:

Requester's Name:

Requester's Phone # (Format: 123-456-7890):

Scanner / Room:

Exam Date (or Date Range):

Exam Time (AM, PM, Any):

Exam Duration:

Addition Comments (Reason for need):

Requester's Phone: This should be the phone number of the research staff accompanying the research subject.

**ATTENTION:** Requests that do not provide all the required fields and correct information will not be processed or reviewed.

**Step 4.** Submit Request

**Step 5.** Click OK

Priority requests are to be processed within two business days.  
Are you sure to send this urgent e-mail request to the administrator?

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Urgent requests are to be processed within 2-4 hours.  
Are you sure to send this urgent e-mail request to the administrator?

**Step Six.** Request Submitted

**MRRC Urgent Request Received**  
We have received your urgent request. We will get back to you within 2-4 hours.

**MRRC Priority Request Received**  
We have received your priority request. We will get back to you within two business days.