MoTrPAC Biosample Access Policy
Version 1.1.1
September 26, 2023

MoTrPAC archived Biorepository samples (human and rodent) are available via three mechanisms:

- scheme 1: as part of the main contract (in the approved Tissue Analysis Plan; TAP);
- scheme 2: for projects not covered by main contract activities, as part of an approved ancillary study;
- scheme 3: to fulfill Journal requests for additional data.

This document is focused on schemes 2 and 3 (with the exception of item 8.a).

1. Anyone considering a MoTrPAC Ancillary Study **WILL** review the MoTrPAC Biosample Manual of Operations to help understand what biosamples are available. Also, Appendix #1 contains a "quick look" set of tables to help orient the investigators.
2. If investigators proceed with a MoTrPAC Ancillary Study, they **WILL** contact the Biorepository and DMAQC as early as possible in the planning process.
    a. In their Ancillary Study proposal, investigators **WILL** attach a Biorepository Report (an estimate of the impact of the proposal on the MoTrPAC Biorepository) obtained by the applicant from the Biorepository using information from the DMAQC as to the nature of the samples. Generally, two weeks are needed for preparing such a report but some circumstances may require faster turnaround.
3. The MoTrPAC BMP Subcommittee **WILL** review and evaluate proposals that utilize Biorepository samples and provide input to the Ancillary Studies Subcommittee.
4. The MoTrPAC Biorepository **WILL NOT** set aside samples for approved Ancillary Studies while they are being reviewed for funding or in other ways delayed or not ready to start; the Biorepository will work with investigators to assure the best possible availability by the time of funding.
5. In our consideration of scientific merit, the BMP and Ancillary Studies Committees **WILL** give highest priority to projects
    a. that are consistent with MoTrPAC Mission and Goals and add substantially to MoTrPAC data set once completed.
    b. for which MoTrPAC samples are the best resource (or possibly the only resource) available; in other words, investigators should justify MoTrPAC samples rather than samples from some other source (e.g., locally collected samples).
6. As MoTrPAC progresses, the MoTrPAC Biorepository **WILL** accumulate once-thawed samples from which a portion was previously removed (especially likely for serum samples).
    a. The BMP and Ancillary Studies Committees **WILL** approve thawed samples first; investigators must justify the use of unthawed samples.
7. The BMP and Ancillary Studies Committees **WILL** approve the sample type (e.g., once-spun plasma vs twice-spun plasma) in greatest abundance first; investigators must justify the use of samples with lesser abundance.

8. The BMP and Ancillary Studies Committees **WILL** approve the smallest workable amount of material; investigators **WILL** carefully justify the volume requested.
    a. In the cases where residual samples remain after analyses (whether originally distributed as part of scheme 1, 2 or 3), they may remain at the lab where the analyses were done for a period that covers
        i. being certain everything worked well (i.e., QC); or
        ii. 6 months

    After that, the investigators **WILL** return samples to the Biorepository where they will be either restocked with annotation regarding being residual samples, or destroyed (if there is sufficient reason to believe they have been compromised in a substantive manner).
9. Investigators **WILL** provide evidence to affirm that the proposed assays have been validated as sufficiently sensitive and reproducible for the study, including a brief review of quality assurance/quality control.
    a. The BMP and Ancillary Studies Committees **WILL NOT** approve MoTrPAC samples for assay optimization (e.g., determining smallest workable amount, proper extraction method, etc); this should be done prior to applying for MoTrPAC samples with non-MoTrPAC materials.
    b. Rare cases where this must be done with MoTrPAC material **WILL** require strong justification.
10. As MoTrPAC progresses, certain samples will become in short supply. As we approach ~10% of initial amount or an amount which would be completely depleted by a proposed study, investigators **WILL** carefully justify the use of remaining samples.
11. In addition to general scientific merit and benefit specifically to MoTrPAC, the BMP and Ancillary Studies Committees **WILL** consider the following issues as important in prioritizing proposals:
    a. Does the proposal integrate activities with other ancillary studies to help limit freeze-thaw cycles?
    b. Is the proposal important to a new investigator(s)?
    c. Does the proposal help complete or expand the overall MoTrPAC portfolio?
12. Approved ancillary studies **WILL** have 2 years to obtain funding; after that they will need reapproval to be put in the queue for biosamples.
13. Regarding requests based on Journal review, see MoTrPAC Data Sharing Plan v3.5, Appendix 4 (item #1).

Appendix #1. “Quick Look” at available MotrPAC samples.

HUMAN

Time Point	**Tissue**	**SED EE**	**SED RE**	**SED Control**	**HA EE^**	**HA RE^**	**PEDS^~**
Pre-exercise or Rest 1	Blood	x	x	x	x	x	x
	Muscle	x	x	x	x	x	
	Adipose	x	x	x	x	x	
20min exercise or Rest 2	Blood	x		x	x		x
	Muscle						
	Adipose						
40min exercise or Rest 2	Blood	x		x	x		x
	Muscle						
	Adipose						
10min post-exercise or Rest 3	Blood	x	x	x	x	x	x
	Muscle						
	Adipose						
15min post-exercise or Rest 3	Blood						
	Muscle	x*	x*	x*	x	x	
	Adipose						
30min post-exercise or Rest 3	Blood	x	x	x	x	x	x
	Muscle						
	Adipose						
45min post-exercise or Rest 3	Blood						
	Muscle						
	Adipose	x*	x*	x*			
3.5h post-exercise or Rest 3	Blood	x*	x*	x*	x	x	x
	Muscle	x*	x*	x*	x	x	
	Adipose						
4h post-exercise or Rest 3	Blood						
	Muscle						
	Adipose	x*	x*	x*	x	x	

24h post-exercise or Rest 3	Blood	x*	x*	x*	x	x	
	Muscle	x*	x*	x*	x	x	
	Adipose	x*	x*	x*			

^Samples are collected at baseline acute test only in HA participants

~ **Includes all PED groups:** PED SED EE, PED Control, PED HA EE

*These specific timepoints and samples are collected in a subset of randomized participants due to randomization to temporal profiles

PASS Phase 1A

Time Point of Tissue Collection Post-Acute Exercise or Rest	**Exercise**	**SED Control**
Immediately (IPE)	x	
0.5h post	x	
1h post	x	
4h post	x	
7h post	x	x
24h post	x	x
48h post	x	

PASS 1C

Time Point of Tissue Collection Post-Acute Exercise or Rest	**Exercise**	**SED Control**
Immediately (IPE)		x
0.5h post	x	x
1h post	x	
4h post		x
7h post		
24h post	x	
48h post		

PASS Phase 1B

Time Point of Tissue Collection Post-Training or Rest	**Exercise**	**SED Control**
Week 1	x	x*
Week 2	x	
Week 4	x	
Week 8	x	x

* For the older age group, an additional set of controls (n=5-6) was collected with the 1-2 week training group