

BioRC Mission

Our Mission

- To procure, process, store and distribute precious bio-samples following best

Our Goal

- Establish a premier biobank with a well-defined and targeted set of biospecimens and supporting services.
- Enable support for both ongoing research and future studies that employ new and emerging technologies.
- Provide the highest quality biomaterials, specimen services, technical consultation and logistical support.

Our Vision

- To become a world-class collaborative pediatric biobank.

How We Operate

- We work mainly on a project by project basis.
- We support Investigator-initiated, Divisional, and Center-based IRB-approved biobanking efforts.
- Projects are approved via the BioRC Operational Committee (BOC*).
- Projects must meet the institutional principles for biobanking.

*Paula Oliver, PhD., Committee Chair

CHOP Biobanking Principles

- Biobanking specimens must be accessioned via the Nautilus LIMS system and the DBHi Bioportal-Honest Broker system for tracking and linking data.
- Specimen and associated data (PI-approved) will be made available (de-identified) on the CHOP **ARCUS** data platform to allow for collaboration across the institute.
- Specimen distribution is encouraged; however, all biobank specimen distribution via collaborative requests from CHOP investigators must be approved by the PI of the collecting study.
- Projects that agree to the principles and are approved by the BOC will receive free specimen accession, tracking, and storage.

BioRC LIMS

BioRC LIMS Study Design Module:

Creation of study based on specimen collection protocol.

- Biobank Study
- Groups (Participants)
- Collection Events
- Primary Samples
- Derived Aliquots

Enables:

- Specimen Collection Kits
- Collection Guide
- Tracking of Collection goals

| Name | Description | Sequence | Volume | Unit | Container Type |
|--------|-----------------------|----------|--------|------|------------------|
| BLD01 | EDTA Blood | 1 | 4000 | ul | EDTA (5ml) |
| BLD02 | EDTA Blood | 2 | 4000 | ul | EDTA (5ml) |
| CSF01 | Cerebral Spinal Fluid | 1 | | ul | Cryovial (1.5ml) |
| CSF02 | Cerebral Spinal Fluid | 2 | | ul | Cryovial (1.5ml) |
| CSF03 | Cerebral Spinal Fluid | 3 | | ul | Cryovial (1.5ml) |
| FFR201 | Flash Frozen Tissue | 1 | | ug | Cryovial (1.5ml) |
| FFR202 | Flash Frozen Tissue | 2 | | ug | Cryovial (1.5ml) |
| FFR203 | Flash Frozen Tissue | 3 | | ug | Cryovial (1.5ml) |
| FRZM01 | Freezing Media Tissue | 1 | | mg | Cryovial (1.5ml) |
| FRZM02 | Freezing Media Tissue | 2 | | mg | Cryovial (1.5ml) |
| FRZM03 | Freezing Media Tissue | 3 | | mg | Cryovial (1.5ml) |
| FRZM04 | Freezing Media Tissue | 4 | | mg | Cryovial (1.5ml) |
| FRZM05 | Freezing Media Tissue | 5 | | mg | Cryovial (1.5ml) |

BioRC Services

Sample Tracking and Processing

- Enterprise LIMS system.
- Labeling and tracking with barcoding (1D & 2D) and scanning systems.
- Tracking and storage of all sample derivatives.
- Blood fractionation.
- PBMC isolation and cryopreservation.
- Aliquoting for distribution.

Sample Extraction and Purification

- Automated format for efficient throughput.
- DNA and RNA.
- Optimized technology for a wide range of sample types:
 - Blood
 - Buffy coat
 - Saliva
 - Tissue
 - Buccal swab
 - Cells

Sample Storage

- Dedicated and customized storage.
- Temperature monitoring and redundant alarm systems.

BioRC Lab: A440 Colket Translational Research Building

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