The NINDS Repository Biomarker Discovery Collection: A Public Resource of Biomaterials for Neurodegenerative Disease Research

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NINDS REPOSITORY

Established in 2002 by the National Institute of Neurological Disorders and Stroke
Managed by Coriell Institute (expertise on biobanking/cryogenics, personalized medicine, stem cells and LIMS).

Biospecimens from >41,000 individuals publicly available online: ccr.coriell.org/NINDS

Sample types include DNA, RNA, lymphoblastoid cell lines (LCL), fibroblasts, induced pluripotent stem cells (iPSC), plasma, serum, cerebrospinal fluid (CSF), whole-blood, and urine

BIOMARKER COLLECTIONS

Parkinson's Disease Biomarkers Program

2012 – Present
5 yrs. 1,400 unique subjects
Longitudinal Visits 2/yr.
(900 affected / 500 control)
pdbp.ninds.nih.gov

Fox Investigation for New Discovery of Biomarkers

2012 – Present
2 yrs. 240 unique subjects
2 Visits within 2 weeks
(120 affected / 120 control)
www.michaeljfox.org/biofind

Neurobiological Predictors of Huntington's Disease

2000 – Present
10+ yrs. 1,380 unique subjects
Longitudinal Visits 1/yr.
(230 diagnosed / 850 at-risk / 300 control)
www.predict-hd.net

Sample Types

DNA RNA Plasma Serum Whole-blood CSF Urine

PROCESSING, QC & QA

INCOMING SAMPLES

PACKAGE ARRIVAL

WHOLE-BLOOD

PLASMA

SERUM

CSF

PROCESSING

SAMPLE ARCHIVING

DNA & RNA EXTRACTION

SUB-ALIQUOTING

QC & QA

SHIPMENT DOCUMENTATION

VISUAL INSPECTION

SAMPLE CODING

IDENTITY & GENDER CONFIRMATION

FREEZE / THAW TRACKING

HEMOGLOBIN CONCENTRATION

STUDY WORKFLOW

Subject Enrollment

Sample Collection

Data Collection

Sample Display

Data Access

Biomarker Discovery & Validation

Data Validation

Sample Processing, QC & QA

Sample Collection Procedures

Site Training

Subject

NINDS Repository

Data Mgmt. System

Ag. Data

Distribution

Display

Coriell Institute for Medical Research