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

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National Institute of Neurological Disorders and Stroke

The Michael J. Fox Foundation for Parkinson's Research

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

Disease Subcollection	Samples Received	Unique Subjects	Affected Subjects	At Risk Subjects	Unaffected Subjects
Cerebrovascular Disease	20,422	12,478	10,285	2,193	0
Control	13,892	6,958	0	0	6,958
Dystonia	1,862	926	910	16	0
Epilepsy	11,238	5,650	3,819	1,831	0
Huntington's Disease	25,406	1,428	256	860	412
Motor Neuron Disease	5,477	2,743	2,539	204	0
Parkinsonism	13,644	6,885	6,135	750	0
Tourette Syndrome	8,134	4,051	2,846	1,205	0
TOTAL	**100,075**	**41,119**	**26,790**	**7,059**	**7,270**

BIOMARKER COLLECTIONS

Parkinson's Disease Biomarkers Program

PDBP Parkinson's Disease Biomarkers Program

pdbp.ninds.nih.gov

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

Fox Investigation for New Discovery of Biomarkers

BioFIND

www.michaeljfox.org/biofind

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

Neurobiological Predictors of Huntington's Disease

PREDICT-HD

www.predict-hd.net

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

Sample Types

- DNA, RNA
- Plasma, Serum, Whole-blood
- CSF, Urine

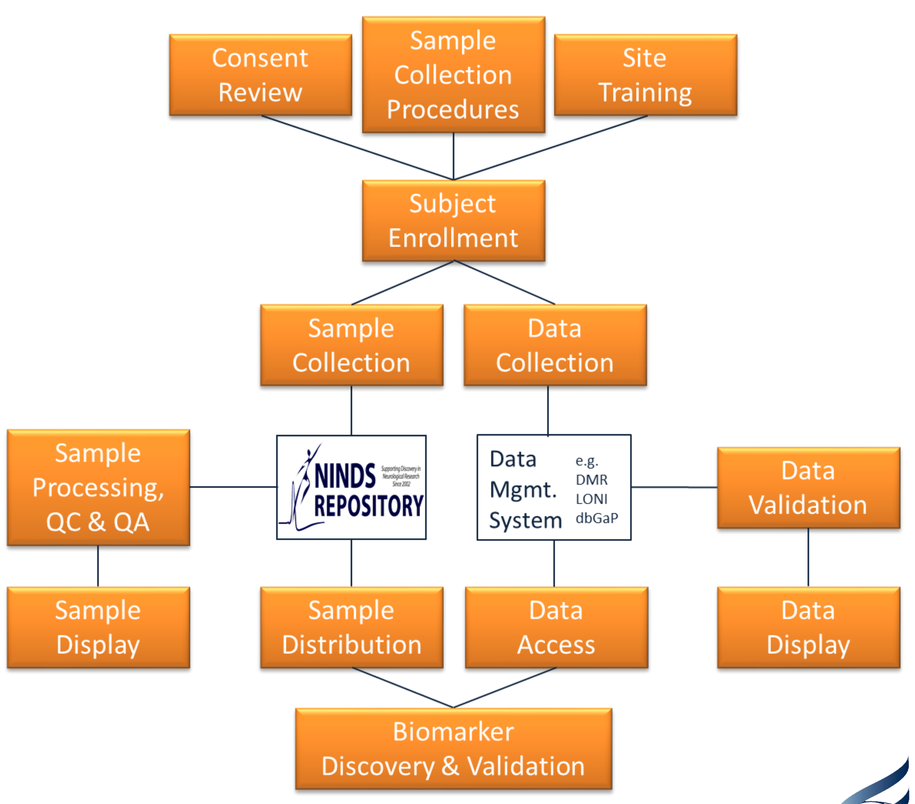
PROCESSING, QC & QA

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



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