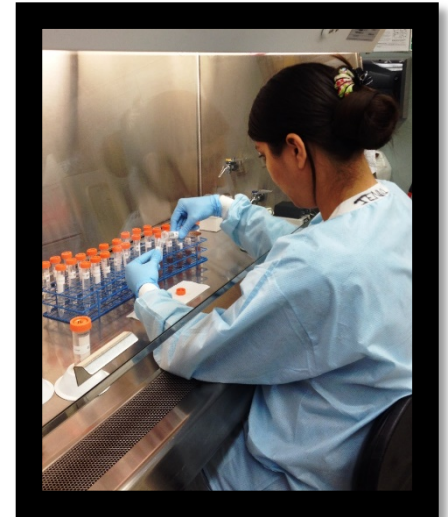


NCRAD update: How can I find NCRAD samples linked to NACC data?

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U24AG21886



Focus of this Presentation

- What does NCRAD have and how do I find it?
- Describe how to search for ADC participants meeting particular criteria with DNA samples
 - NCRAD or NACC query
- Summarize other samples at NCRAD
 - From the ADCs
 - From other studies
- New initiatives to broaden available samples from ADC participants
- Open discussion

Navigating to the NCRAD Catalogs

Accessing Biospecimens and Data

In order to ensure that researchers have the most accurate information, the National Cell Repository for Alzheimer's Disease (NCRAD) is continually updated with new information. At the time data is requested, NCRAD will provide the researcher with the most current information. Therefore, NCRAD encourages all researchers to request an updated set of variables prior to publication and implementation of analyses involving samples acquired from the Repository. While every effort is made to verify all data and information, NCRAD cannot be responsible for any errors or omissions in the distributed data.

Cohort	Population	Genomic DNA	Cell Line DNA	RNA	Plasma	Serum	LCLs	PBMCs	CSF
ADNI	AD Cases, Controls, MCI	✓	✓	✓			✓		
AA Genetics	AD Cases, Controls		✓				✓		
ADCs	AD and other dementia cases, Controls, MCI	✓	✓					✓	
DIAN	Early Onset AD Families with known mutations		✓				✓		
GEMS	Dementia prevention	✓			✓	✓			
GIFT	AD, FTD, Controls	✓	✓				✓		
Indianapolis-Ibadan	Elderly African Americans from Indianapolis, Yoruba living in Ibadan	✓	✓				✓		
NCRAD Family	AD and other dementia families	✓	✓				✓	✓	
NIA-LOAD	Late Onset AD Families, Controls	✓	✓				✓		
ARTFL	FTLD syndrome cases and healthy family members	✓		✓	✓	✓		✓	✓
LEFFTDS	FTLD family study with known genetic mutations (symptomatic and asymptomatic family members)	✓		✓	✓	✓		✓	✓

ADNI

AA Genetics

ADCs

4RTNI-2

ADNI

AA Genetics

ADCs

The Alzheimer's Disease Centers (ADCs) are funded at major medical institutions across the United States. Researchers at these Centers are working to translate research advances into improved diagnosis and care for people with Alzheimer's disease while focusing on the program's long-term goal—finding a way to cure and possibly prevent Alzheimer's.

Study Subjects

Although each center has its own area of emphasis, a common goal of the ADCs is to enhance research on Alzheimer's disease by creating a network that shares new ideas and research results. The clinic-based population includes subjects with Alzheimer's disease and related disorders, as well as cognitively normal subjects and those with MCI.

Available Data

The National Alzheimer's Coordinating Center (NACC) maintains a cumulative database including clinical evaluations, neuropathology data when available, and MRI Imaging. The NACC database comprises several standardized clinical and neuropathology data sets, all of which are freely available to the research community.

Available Biospecimens

Genomic DNA from blood or brain tissue, Cell Line DNA from LCLs, PBMCs from select subjects

Price Structure

Catalog

Request Access to Biospecimens

DIAN

GEMS

GIFT

Indianapolis-Ibadan

NCRAD Family

Within the NCRAD website, in the Accessing Biospecimens and Data section, catalogs can be accessed at https://www.ncrad.org/accessing_data.html

Accessing NCRAD Catalogs

- Researchers must complete a web-based Data Agreement to obtain a username and password to the restricted catalogs.

Data Agreement

I request access to data housed at the National Cell Repository for Alzheimer's Disease (NCRAD) for the purpose of scientific investigation, teaching, or the planning of clinical research studies and agree to the following terms:

Section I: Access, Use, and Safeguards

- I will receive de-identified data and will not attempt to establish the identity of, or attempt to contact any of the subjects with data in NCRAD.
- I will not attempt to identify any specific study sites, unless NCRAD has approved such identification as part of my project's protocol.
- I understand that distributing these data to a third party is prohibited, and therefore I will not distribute these data beyond the uses outlined in this agreement. A third party is defined as anyone who is not a collaborator or co-author on the analyses defined in my proposal.
- I will require anyone on my team who uses the data, or anyone with whom I share these data, to comply with this Data Agreement.
- I will accurately provide the requested information about persons who will use the data and analyses that are planned using these data.
- I will comply with any rules and regulations imposed by my institution and its institutional review board in requesting and using these data.
- I understand that any data I download may change as new quality assurance measures are implemented and data records are updated.
- I will ensure that Investigators who utilize data obtained from NCRAD use appropriate administrative, physical, and technical safeguards to prevent use or disclosure of the data other than as provided for by this Agreement.
- I will report any use or disclosure of the data not provided for by this Agreement of which I become aware within 15 days of becoming aware of such use or disclosure.

NCRAD Catalogs

After obtaining a username and password from the NCRAD staff, researchers will be able to log directly into the specimen catalog to review a subset of data.

Welcome to the HUGB Web Portal

Please Sign In




Username
lacy

Password
.....

Log in

Log in

Trouble signing in? [Click Here](#)

NCRAD Catalogs

The catalog system is designed to allow researchers to determine which sample collections best fit their research needs and perform feasibility checks before applying for or requesting the samples. The researcher will have the option to download their selected sample set and include that with their application.

ADC Catalog

Dictionary

Join Data

Selection

Download

Help

Tour

Signed in as lacyLogout

Column Filter Search

	NACCID	Specimen Type	Specimen Quantity	Quantity UOM	Specimen Count
<input checked="" type="checkbox"/> NACCID	20527	NACC031676	DNA	5 ug	154
<input type="checkbox"/> Sex	20590	NACC046061	DNA	5 ug	128
<input type="checkbox"/> Hispanic	20589	NACC468633	DNA	5 ug	222
<input type="checkbox"/> Race	20551	NACC722051	DNA	5 ug	2
<input type="checkbox"/> Years of Education	20722	NACC815678	DNA	5 ug	50
<input checked="" type="checkbox"/> Specimen Type	20873	NACC404251	DNA	5 ug	828
<input checked="" type="checkbox"/> Specimen Quantity	20725	NACC793322	DNA	5 ug	78
<input checked="" type="checkbox"/> Quantity UOM	20878	NACC165757	DNA	5 ug	772
<input checked="" type="checkbox"/> Specimen Count	23500	NACC666455	DNA	5 ug	230
<input type="checkbox"/> Additional Stock	23359	NACC928893	DNA	5 ug	180
<input type="checkbox"/> Concentration	23361	NACC968763	DNA	5 ug	126
<input type="checkbox"/> Ratio 260-280	20881	NACC394961	DNA	5 ug	298
<input type="checkbox"/> DNA Source	23353	NACC987523	DNA	5 ug	268
<input type="checkbox"/> Total Visits	23421	NACC528063	DNA	5 ug	246
<input type="checkbox"/> Initial Visit Age	21409	NACC835931	DNA	5 ug	52
<input type="checkbox"/> Initial Global CDR	21412	NACC032271	DNA	5 ug	304
<input type="checkbox"/> Initial UDS Status	21486	NACC611039	DNA	5 ug	138
<input type="checkbox"/> Initial Diagnosis	20728	NACC333002	DNA	5 ug	238
<input type="checkbox"/> DICOM Available	21603	NACC148948	DNA	5 ug	8
<input type="checkbox"/> Last Age	22202	NACC843246	DNA	5 ug	802
<input type="checkbox"/> Decline Age	23381	NACC601145	DNA	5 ug	166
<input type="checkbox"/> Last Global CDR	23383	NACC141480	DNA	5 ug	264
<input type="checkbox"/> Last UDS Status	24300	NACC517482	DNA	5 ug	1134
<input type="checkbox"/> Last Diagnosis	24302	NACC845177	DNA	5 ug	802
<input type="checkbox"/> Deceased	21735	NACC571764	DNA	5 ug	1080
<input type="checkbox"/> Age at Death	23356	NACC395904	DNA	5 ug	470
<input type="checkbox"/> Autopsy Available	25111	NACC987468	DNA	5 ug	740
<input type="checkbox"/> Braak Stage	25120	NACC810748	DNA	5 ug	1444
<input type="checkbox"/> CERAD	21424	NACC377498	DNA	5 ug	874
	21440	NACC017390	DNA	5 ug	344
	21456	NACC007556	DNA	5 ug	186
	21457	NACC547123	DNA	5 ug	380

mmgcCatalogs v.2.1.42 - Catalog Data Generated: 2018-10-10

Displaying 28,147 records (0 Selected)

What is in the NCRAD ADC Catalog?

NACC Fields in NCRAD Limited Data Set

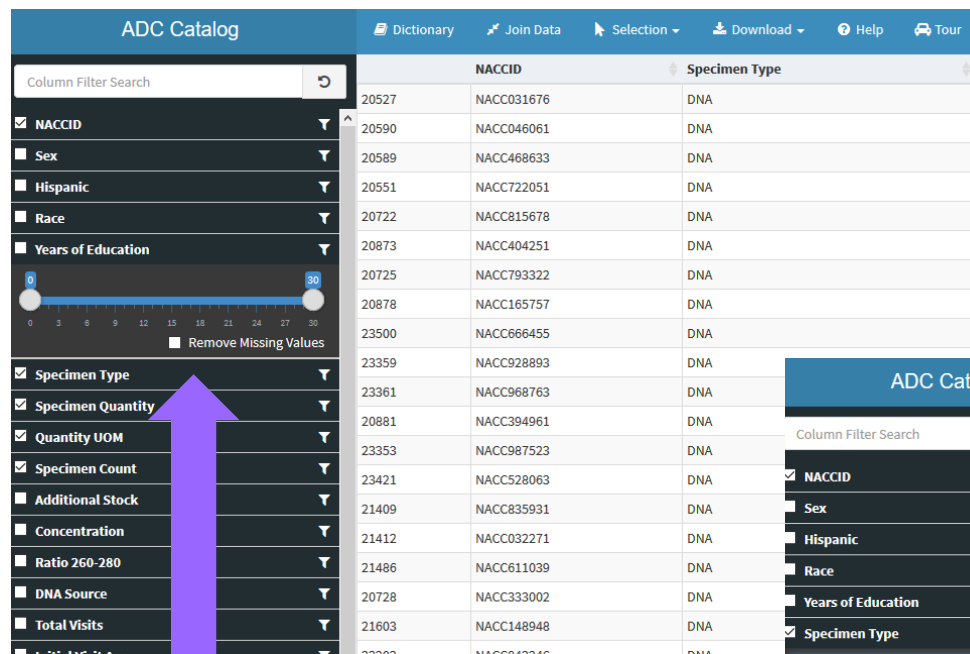
• NACCID	• DICOM image file available?
• Sex	• Global CDR at Last Visit
• Ethnicity	• Cognitive Status at Last Visit
• Race	• Diagnosis at Last Visit
• Years of Education	• Deceased?
• Total Visits	• Age at Death
• Initial Visit Age	• Autopsy Available
• Global CDR at Initial Visit	• Braak Stage
• Cognitive Status at Initial Visit	• CERAD Score
• Diagnosis at Initial Visit	

NCRAD Biospecimen Fields

• Specimen Type
• Specimen Quantity
• Quantity UOM
• Specimen Count
• Additional Stock
• Concentration
• 260/280 Ratio
• DNA Source
• Specimen Type
• Specimen Quantity

Filter by Specimen Criteria

Researchers can use the sidebar to filter for the specific samples that meet their request criteria. When the categories on the left are selected, they will appear in the dataset to the right. Variables can be chosen by range of numbers, such as age, or text options, such as baseline diagnosis.



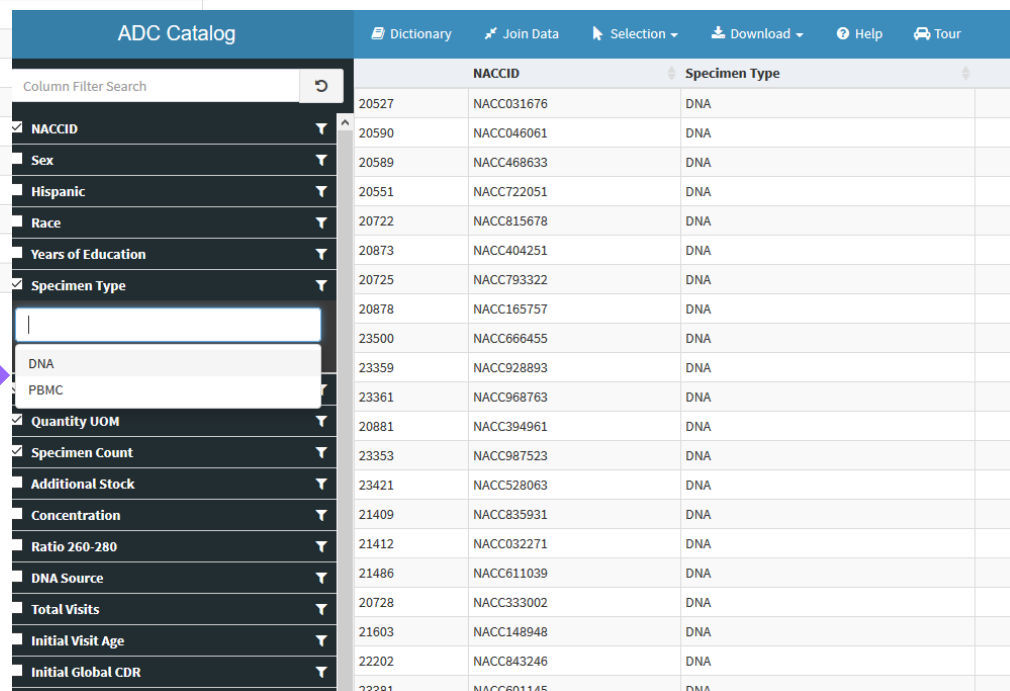
ADC Catalog

Column Filter Search

- ☒ NACCID
- ☐ Sex
- ☐ Hispanic
- ☐ Race
- ☐ Years of Education
- ☒ Specimen Type
- ☒ Specimen Quantity
- ☒ Quantity UOM
- ☒ Specimen Count
- ☐ Additional Stock
- ☐ Concentration
- ☐ Ratio 260-280
- ☐ DNA Source
- ☐ Total Visits
- ☐ Initial Visit Age

Remove Missing Values

	NACCID	Specimen Type
20527	NACC031676	DNA
20590	NACC046061	DNA
20589	NACC468633	DNA
20551	NACC722051	DNA
20722	NACC815678	DNA
20873	NACC404251	DNA
20725	NACC793322	DNA
20878	NACC165757	DNA
23500	NACC666455	DNA
23359	NACC928893	DNA
23361	NACC968763	DNA
20881	NACC394961	DNA
23353	NACC987523	DNA
23421	NACC528063	DNA
21409	NACC835931	DNA
21412	NACC032271	DNA
21486	NACC611039	DNA
20728	NACC333002	DNA
21603	NACC148948	DNA
22202	NACC843246	DNA
22381	NACC601145	DNA



ADC Catalog

Column Filter Search

- ☒ NACCID
- ☐ Sex
- ☐ Hispanic
- ☐ Race
- ☐ Years of Education
- ☒ Specimen Type
- ☐ Specimen Quantity
- ☒ Quantity UOM
- ☒ Specimen Count
- ☐ Additional Stock
- ☐ Concentration
- ☐ Ratio 260-280
- ☐ DNA Source
- ☐ Total Visits
- ☐ Initial Visit Age
- ☐ Initial Global CDR

DNA
PBMC

	NACCID	Specimen Type
20527	NACC031676	DNA
20590	NACC046061	DNA
20589	NACC468633	DNA
20551	NACC722051	DNA
20722	NACC815678	DNA
20873	NACC404251	DNA
20725	NACC793322	DNA
20878	NACC165757	DNA
23500	NACC666455	DNA
23359	NACC928893	DNA
23361	NACC968763	DNA
20881	NACC394961	DNA
23353	NACC987523	DNA
23421	NACC528063	DNA
21409	NACC835931	DNA
21412	NACC032271	DNA
21486	NACC611039	DNA
20728	NACC333002	DNA
21603	NACC148948	DNA
22202	NACC843246	DNA
22381	NACC601145	DNA

Filters are available as sliders or drop down lists

Sample Selection

Researchers can individually select the samples they want, which highlights the selection in blue. They can also use the selection tool at the top to select all, none, or invert their selection.

By clicking here, selection options appear.

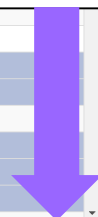


Selection ▾ Download ▾ Help Tour							Signed in as lacy Logout	
Column Filter Search		Specimen Type	Specimen Quantity	Quantity UOM	Specimen Count	Last Diagnosis		
<input checked="" type="checkbox"/> NACCID	20590	NACC046061	DNA	5 ug	154	Alzheimer's disease (AD)		
<input checked="" type="checkbox"/> Sex	20589	NACC468633	DNA	5 ug	128	Alzheimer's disease (AD)		
<input checked="" type="checkbox"/> Hispanic	20551	NACC722051	DNA	5 ug	222	FTLD, other		
<input checked="" type="checkbox"/> Race	20722	NACC815678	DNA	5 ug	2	Alzheimer's disease (AD)		
<input checked="" type="checkbox"/> Years of Education	20873	NACC404251	DNA	5 ug	50	Alzheimer's disease (AD)		
<input checked="" type="checkbox"/> Specimen Type	20725	NACC793322	DNA	5 ug	828	Alzheimer's disease (AD)		
<input checked="" type="checkbox"/> Specimen Quantity	20878	NACC165757	DNA	5 ug	78	Alzheimer's disease (AD)		
<input checked="" type="checkbox"/> Quantity UOM	23500	NACC666455	DNA	5 ug	772	Not applicable, not cognitively impaired		
<input checked="" type="checkbox"/> Specimen Count	23359	NACC928893	DNA	5 ug	230	FTLD, other		
<input checked="" type="checkbox"/> Additional Stock	23361	NACC968763	DNA	5 ug	180	Not applicable, not cognitively impaired		
<input checked="" type="checkbox"/> Concentration	20881	NACC394961	DNA	5 ug	126	Alzheimer's disease (AD)		
<input checked="" type="checkbox"/> Ratio 260-280	23353	NACC987523	DNA	5 ug	298	Vascular brain injury or va		
<input checked="" type="checkbox"/> DNA Source	23421	NACC528063	DNA	5 ug	268	Alzheimer's disease (AD)		
<input checked="" type="checkbox"/> Total Visits	21409	NACC835931	DNA	5 ug	246	Alzheimer's disease (AD)		
<input checked="" type="checkbox"/> Initial Visit Age	21412	NACC032271	DNA	5 ug	52	FTLD, other		
<input checked="" type="checkbox"/> Initial Global CDR	21486	NACC611039	DNA	5 ug	304	Lewy body disease (LbD)		
<input checked="" type="checkbox"/> Initial UDS Status	20728	NACC333002	DNA	5 ug	138	Alzheimer's disease (AD)		
<input checked="" type="checkbox"/> Initial Diagnosis	21603	NACC148948	DNA	5 ug	238	Alzheimer's disease (AD)		
<input checked="" type="checkbox"/> DICOM Available	22202	NACC843246	DNA	5 ug	8	Alzheimer's disease (AD)		
<input checked="" type="checkbox"/> Last Age	23381	NACC601145	DNA	5 ug	802	Alzheimer's disease (AD)		
<input checked="" type="checkbox"/> Decline Age	23383	NACC141480	DNA	5 ug	166	Alzheimer's disease (AD)		
<input checked="" type="checkbox"/> Last Global CDR	24300	NACC517482	DNA	5 ug	264	Not applicable, not cognitively impaired		
<input checked="" type="checkbox"/> Last UDS Status	24302	NACC845177	DNA	5 ug	1134	Alzheimer's disease (AD)		
<input checked="" type="checkbox"/> Last Diagnosis	21735	NACC571764	DNA	5 ug	802	FTLD, other		
<input checked="" type="checkbox"/> Deceased	23356	NACC395904	DNA	5 ug	1080	Missing/unknown		
<input checked="" type="checkbox"/> Age at Death	25111	NACC987468	DNA	5 ug	470	Alzheimer's disease (AD)		
<input checked="" type="checkbox"/> Autopsy Available	25120	NACC810748	DNA	5 ug	740	Alzheimer's disease (AD)		
<input checked="" type="checkbox"/> Braak Stage	21424	NACC377498	DNA	5 ug	1444	Alzheimer's disease (AD)		
<input checked="" type="checkbox"/> CERAD	21440	NACC017390	DNA	5 ug	874	FTLD, other		
	21456	NACC007556	DNA	5 ug	344	Not applicable, not cognitively impaired		
	21457	NACC547123	DNA	5 ug	186	Not applicable, not cognitively impaired		
				5 ug	380	Not applicable, not cognitively impaired		

mmpgCatalogs v2.1.40 - Catalog Data Generated: 2018-10-18

Displaying 28,147 records (17 Selected)

In the bottom right corner, the catalog will show how many samples are selected and how many samples are displayed.



Download Selection

Researchers will have the option to download the entire dataset, just the filtered specimens, or their selected specimens. An excel file will download to the desktop.



By clicking here,
download options
appear.

ADC Catalog		Dictionary Join Data Selection Download					Signed in as lacy Logout	
Column Filter Search		NACCID	Specimen Type	Specimen Quantity	Quantity UOM	Specimen Count	Last Diagnosis	
<input checked="" type="checkbox"/>	NACCID	20527	NACC031676	DNA	5 ug	154	Alzheimer's disease (AD)	
<input type="checkbox"/>	Sex	20590	NACC046061	DNA	5 ug	128	Alzheimer's disease (AD)	
<input type="checkbox"/>	Hispanic	20589	NACC468633	DNA	5 ug	222	FTLD, other	
<input type="checkbox"/>	Race	20551	NACC722051	DNA	5 ug	2	Alzheimer's disease (AD)	
<input type="checkbox"/>	Years of Education	20722	NACC815678	DNA	5 ug	50	Alzheimer's disease (AD)	
<input type="checkbox"/>	Specimen Type	20873	NACC404251	DNA	5 ug	828	Alzheimer's disease (AD)	
<input checked="" type="checkbox"/>	Specimen Quantity	20725	NACC793322	DNA	5 ug	78	Alzheimer's disease (AD)	
<input checked="" type="checkbox"/>	Quantity UOM	20878	NACC165757	DNA	5 ug	772	Not applicable, not cognitively impaired	
<input checked="" type="checkbox"/>	Specimen Count	23500	NACC666455	DNA	5 ug	230	FTLD, other	
<input type="checkbox"/>	Additional Stock	23359	NACC928893	DNA	5 ug	180	Not applicable, not cognitively impaired	
<input type="checkbox"/>	Concentration	23361	NACC968763	DNA	5 ug	126	Alzheimer's disease (AD)	
<input type="checkbox"/>	Ratio 260-280	20881	NACC394961	DNA	5 ug	298	Vascular brain injury or vascular dementia including stroke	
<input type="checkbox"/>	DNA Source	23353	NACC987523	DNA	5 ug	268	Alzheimer's disease (AD)	
<input type="checkbox"/>	Total Visits	23421	NACC528063	DNA	5 ug	246	Alzheimer's disease (AD)	
<input type="checkbox"/>	Initial Visit Age	21409	NACC835931	DNA	5 ug	52	FTLD, other	
<input type="checkbox"/>	Initial Global CDR	21412	NACC032271	DNA	5 ug	304	Lewy body disease (LbD)	
<input type="checkbox"/>	Initial UDS Status	21486	NACC611039	DNA	5 ug	138	Alzheimer's disease (AD)	
<input type="checkbox"/>	Initial Diagnosis	20728	NACC333002	DNA	5 ug	238	Alzheimer's disease (AD)	
<input type="checkbox"/>	Decline Age	21603	NACC148948	DNA	5 ug	8	Alzheimer's disease (AD)	
<input type="checkbox"/>	Last Age	22202	NACC843246	DNA	5 ug	802	Alzheimer's disease (AD)	
<input type="checkbox"/>	Last Global CDR	23381	NACC601145	DNA	5 ug	166	Alzheimer's disease (AD)	
<input type="checkbox"/>	Last UDS Status	23383	NACC141480	DNA	5 ug	264	Not applicable, not cognitively impaired	
<input type="checkbox"/>	Last Diagnosis	24300	NACC517482	DNA	5 ug	1134	Alzheimer's disease (AD)	
<input type="checkbox"/>	Deceased	24302	NACC845177	DNA	5 ug	802	FTLD, other	
<input type="checkbox"/>	Age at Death	21735	NACC571764	DNA	5 ug	1080	Missing/unknown	
<input type="checkbox"/>	Autopsy Available	23356	NACC395904	DNA	5 ug	470	Alzheimer's disease (AD)	
<input type="checkbox"/>	Braak Stage	25111	NACC987468	DNA	5 ug	740	Alzheimer's disease (AD)	
<input type="checkbox"/>	CERAD	25120	NACC810748	DNA	5 ug	1444	Alzheimer's disease (AD)	
		21424	NACC377498	DNA	5 ug	874	FTLD, other	
		21440	NACC017390	DNA	5 ug	344	Not applicable, not cognitively impaired	
		21456	NACC007556	DNA	5 ug	186	Not applicable, not cognitively impaired	
		21457	NACC547123	DNA	5 ug	380	Not applicable, not cognitively impaired	

Help and Tour

The “Help” tab walks researchers through the catalog sections such as the toolbar and sidebar. It explains in detail how to filter, join data, and download files.

The “Tour” tab walks researchers through the dataset step by step, such as explaining how to filter for specimen criteria or how to join data.

ADC Catalog

Dictionary Join Data Selection Download Help Tour

Toggle field visibility

Use these checkboxes to toggle the visibility of columns in the catalog

« Prev Next » End tour

Help General Filtering Joining Ordering

IUGB Catalog System

Welcome to the IUGB Biospecimen Cataloging System. Use this catalog to identify available biospecimens. You may use the tabs at the top of this window to read more detailed help about specific sections of the catalog or click the button in the toolbar labeled "Tour".

Clicking the button will open the catalog tour:

Welcome

Please take a short tour to familiarize yourself with the application

« Prev Next » End tour

Click "Next" to step through explanations of all the functionality of the catalog. You may click "End Tour" at any time to end the tour and start using the catalog.

Catalog Sections

There are four main sections of the application: the toolbar, the side bar, the catalog, and the footer. Each section is explained below.

Close

Column Filter Search	NACCID	Specimen Type	Specimen Quantity	Quantity UOM
NACCID	20527	NACC031676	DNA	5 ug
Sex	20590	NACC046061	DNA	5 ug
Race	20589	NACC468633	DNA	5 ug
Years of Education	20722	NACC722051	DNA	5 ug
Specimen Type	20725	NACC793322	DNA	5 ug
Specimen Quantity	20878	NACC165757	DNA	5 ug
Quantity UOM	23500	NACC666455	DNA	5 ug
Specimen Count	23359	NACC928893	DNA	5 ug
Additional Stock	23361	NACC968763	DNA	5 ug
Concentration	20881	NACC394961	DNA	5 ug
Ratio 260-280	23353	NACC987523	DNA	5 ug
DNA Source	23421	NACC528063	DNA	5 ug
Total Visits	21409	NACC835931	DNA	5 ug
Initial Visit Age	21412	NACC032271	DNA	5 ug
Initial Global CDR	21486	NACC611039	DNA	5 ug
Initial UDS Status	20728	NACC333002	DNA	5 ug
Initial Diagnosis	21603	NACC148948	DNA	5 ug
DICOM Available	22202	NACC843246	DNA	5 ug
Last Age	23381	NACC601145	DNA	5 ug
Decline Age	23383	NACC141480	DNA	5 ug
Last Global CDR	24300	NACC517482	DNA	5 ug
Last UDS Status	24302	NACC845177	DNA	5 ug
Last Diagnosis	21735	NACC571764	DNA	5 ug
Deceased	23356	NACC395904	DNA	5 ug
Age at Death	25111	NACC987468	DNA	5 ug
Autopsy Available	25120	NACC810748	DNA	5 ug
Braak Stage	21424	NACC377498	DNA	5 ug
CERAD	21457	NACC547123	DNA	5 ug

ADC Catalog					Dictionary	Join Data	Selection	Download	Help	Tour
					NACCID	Specimen Type	Specimen Quantity	Quantity UOM		
<input checked="" type="checkbox"/>	20527	NACC031676	DNA	5 ug						
<input checked="" type="checkbox"/>	20590	NACC046061	DNA	5 ug						
<input checked="" type="checkbox"/>	20589	NACC468633	DNA	5 ug						
<input checked="" type="checkbox"/>	20551	NACC722051	DNA	5 ug						
<input checked="" type="checkbox"/>	20722	NACC815678	DNA	5 ug						
<input checked="" type="checkbox"/>	20873	NACC404251	DNA	5 ug						
<input checked="" type="checkbox"/>	20725	NACC793322	DNA	5 ug						
<input checked="" type="checkbox"/>	20878	NACC165757	DNA	5 ug						
<input checked="" type="checkbox"/>	23500	NACC666455	DNA	5 ug						
<input checked="" type="checkbox"/>	23359	NACC928893	DNA	5 ug						
<input checked="" type="checkbox"/>	23361	NACC968763	DNA	5 ug						
<input checked="" type="checkbox"/>	20881	NACC394961	DNA	5 ug						
<input checked="" type="checkbox"/>	23353	NACC987523	DNA	5 ug						
<input checked="" type="checkbox"/>	23421	NACC528063	DNA	5 ug						
<input checked="" type="checkbox"/>	21409	NACC835931	DNA	5 ug						
<input checked="" type="checkbox"/>	21412	NACC032271	DNA	5 ug						
<input checked="" type="checkbox"/>	21486	NACC611039	DNA	5 ug						
<input checked="" type="checkbox"/>	20728	NACC333002	DNA	5 ug						
<input checked="" type="checkbox"/>	21603	NACC148948	DNA	5 ug						
<input checked="" type="checkbox"/>	22202	NACC843246	DNA	5 ug						
<input checked="" type="checkbox"/>	23381	NACC601145	DNA	5 ug						
<input checked="" type="checkbox"/>	23383	NACC141480	DNA	5 ug						
<input checked="" type="checkbox"/>	24300	NACC517482	DNA	5 ug						
<input checked="" type="checkbox"/>	24302	NACC845177	DNA	5 ug						
<input checked="" type="checkbox"/>	21735	NACC571764	DNA	5 ug						
<input checked="" type="checkbox"/>	23356	NACC395904	DNA	5 ug						
<input checked="" type="checkbox"/>	25111	NACC987468	DNA	5 ug						
<input checked="" type="checkbox"/>	25120	NACC810748	DNA	5 ug						
<input checked="" type="checkbox"/>	21424	NACC377498	DNA	5 ug						
<input checked="" type="checkbox"/>	21440	NACC017390	DNA	5 ug						
<input checked="" type="checkbox"/>	21456	NACC007556	DNA	5 ug						
<input checked="" type="checkbox"/>	21457	NACC547123	DNA	5 ug						

mrmgCatalogs v2.1.42 - Catalog Data Generated: 2018-10-10

Links with NIAGADS



Catalog Selections

Please follow the steps below to select the criteria necessary for your research.

1. View the study Data Dictionary to see all available catalog fields' and their descriptions.

[Dictionary](#)

*Additional data were collected for this study. To download a list of additional variables [click here](#). Contact us to request more information about data that are not available in this catalog: alzstudy@iu.edu or 800-526-2839.

2. Click on **Select Columns** below to choose the fields you would like to display in the catalog.

[Select Columns](#)

3. Click on **Filter Columns** below to filter the catalog by applying criteria to individual fields.

[Filter Columns](#)

4. Please **Download** the records you have selected from the catalog. The downloaded CSV file will include all of the columns you have selected and the subjects that met your filtering criteria. Please use this list to work with your statistician to determine feasibility for your research project.

[Download](#)

5. **Contact us!** Please use your downloaded file to work with your statistician to determine feasibility for your research project. When you feel comfortable with the list of samples you have selected, please contact NCRAD to work through the request process. You can reach us at: alzstudy@iu.edu or 800-526-2839.

Late-Onset Alzheimer's Disease Family Study

Welcome and thank you for visiting the NCRAD catalog for the NIA-LOAD study! Please use this tool to help you determine feasibility of this collection for your request. Located on the left hand side of the screen, you will find expandable data mining tools for personalized sample selection. Use these tools to narrow our catalog to only those samples applicable for your research. This application is designed to help you find a list of subjects that can meet your research needs. Please do not hesitate to contact us at any point in the process to ask any questions, provide comments, or talk through your sample needs. You can reach us at: alzstudy@iu.edu or 800-526-2839.

Showing 1 to 25 of 7,126 entries

Subject ID	Family ID	Sex	Autopsy	Dementia Status	Age at Onset	NIAGADS Data
100001	1000	Female	Missing/Unknown	Probable AD	72	NG00020, NG00032
100101	1001	Female	Missing/Unknown	Probable AD	78	NG00020, NG00032
100102	1001	Male	Missing/Unknown	Probable AD	65	NG00020, NG00032
100103	1001	Female	Missing/Unknown	Not demented, no neurological disorder		NG00020, NG00032
100104	1001	Female	Missing/Unknown	Not demented, no neurological disorder		NG00020, NG00032
100201	1002	Female	Missing/Unknown	Probable AD	73	NG00020, NG00032
100301	1003	Male	Missing/Unknown	Probable AD	69	NG00020, NG00032
521641	1003	Female	Missing/Unknown	Probable AD	71	
100401	1004	Female	Missing/Unknown	Probable AD	63	NG00020, NG00032
521642	1004	Male	Missing/Unknown	Questionable dementia or cognitive impairment		
521643	1004	Female	Missing/Unknown	Dementia by family report	70	
521644	1004	Male	Missing/Unknown	Not demented, no neurological disorder		
100501	1005	Female	Missing/Unknown	Probable AD	76	NG00020, NG00032
521645	1005	Male	Missing/Unknown	Other		
100601	1006	Female	Missing/Unknown	Probable AD	81	NG00020, NG00032

Indication of NCRAD sample available in NIAGADS dataset.

Samples with genetic data at NIAGADS are hyperlinked directly to the information page for the dataset.

NIAGADS INQuery

Allowed Dataset: ALL

Reset ✓ Commit Export Search

Table List Fields Commands

- ☒ Uncheck all
- ☒ [OR] Filter
- ☒ NIAGADS_ID
- ☒ subject_id
- ☒ niagads_datasetid
- ☒ ncrad_sample
- ☒ cohort
- ☒ dx
- ☒ sex
- ☒ race
- ☒ ethnicity
- ☒ age
- ☒ mrose
- ☒ braak
- ☒ autopsy
- ☒ age_at_onset
- ☒ age_last_exam

Query By: By SNP By Position

Markers

NIAGADS_ID	subject_id	niagads_data	ncrad_sample	cohort	dx	sex
100001	1000	NG00020, NG00032	Yes	1000	AD	Female
100101	1001	NG00020, NG00032	Yes	1001	AD	Female
100102	1001	NG00020, NG00032	Yes	1001	AD	Male
100103	1001	NG00020, NG00032	Yes	1001	Not demented	Female
100104	1001	NG00020, NG00032	Yes	1001	Not demented	Female
100201	1002	NG00020, NG00032	Yes	1002	AD	Female
100301	1003	NG00020, NG00032	Yes	1003	AD	Male
521641	1003		Yes	1003	AD	Female
100401	1004	NG00020, NG00032	Yes	1004	AD	Female
521642	1004		Yes	1004	Questionable dementia	Male
521643	1004		Yes	1004	Dementia by family report	Female
521644	1004		Yes	1004	Not demented	Male
100501	1005	NG00020, NG00032	Yes	1005	AD	Female
521645	1005		Yes	1005	Other	Male
100601	1006	NG00020, NG00032	Yes	1006	AD	Female

Total Rows: 11226

Stage 1 >>

Developed by Penn Integrative Neurodegenerative Disease Database (INDD) | University of Illinois at Urbana-Champaign

Link at NACC to NCRAD

FTLD type, most recent FTLD module visit	<input type="radio"/>	<input type="radio"/>	
+ Genetics			
<i>Available as:</i>	ROW	COLUMN	PAGE
APOE genotype available at NACC	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
APOE genotype	<input type="radio"/>	<input type="radio"/>	
Number of APOE e4 alleles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Subject/family has known AD Mutation (APP, PS1, PS2)	<input type="radio"/>	<input type="radio"/>	
Subject/family has known FTLD mutation (MAPT, PGRN, C9ORF72, FUS)	<input type="radio"/>	<input type="radio"/>	
Genomic data/DNA samples available outside of NACC (ADGC, NIAGADS, NCRAD)	<input checked="" type="radio"/>	<input type="radio"/>	

NACC Query System: UDS Subjects

NOTE: This query used versions 1-3 of UDS data

These data should be used only as rough, preliminary numbers. For publication purposes, please submit a custom data request

Genomic data/DNA samples available outside of NACC (ADGC, NIAGADS, NCRAD)

Genomic data/DNA samples available outside of NACC (ADGC, NIAGADS, NCRAD)	Frequency (n)
Genotype data available at ADGC	13187
Genotype data available at NIAGADS	3285
Exome sequencing data available from dbGaP / ADSP	3285
DNA sample available at NCRAD	24593
Total UDS subjects	38836

Data from [Additional genetic data](#)

Created on October 11, 2018

Data as of September 1, 2018

www.alz.washington.edu

What About Samples Beyond DNA

- NCRAD is often considered only a DNA repository
- NCRAD banks a broader range of samples
- Challenge: NCRAD does not have enough:
 - Plasma, serum, CSF, RNA
 - from AD, cognitively normal controls, MCI

Accessing Biospecimens and Data

In order to ensure that researchers have the most accurate information, the National Cell Repository for Alzheimer's Disease (NCRAD) is continually updated with new information. At the time data is requested, NCRAD will provide the researcher with the most current information. Therefore, NCRAD encourages all researchers to request an updated set of variables prior to publication and implementation of analyses involving samples acquired from the Repository. While every effort is made to verify all data and information, NCRAD cannot be responsible for any errors or omissions in the distributed data.

Cohort	Population	Genomic DNA	Cell Line DNA	RNA	Plasma	Serum	LCLs	PBMCs	CSF
ADNI	AD Cases, Controls, MCI	✓	✓	✓			✓		
AA Genetics	AD Cases, Controls		✓				✓		
ADCs	AD and other dementia cases, Controls, MCI	✓	✓					✓	
DIAN	Early Onset AD Families with known mutations		✓				✓		
GEMS	Dementia prevention	✓			✓	✓			
GIFT	AD, FTD, Controls	✓	✓				✓		
Indianapolis-Ibadan	Elderly African Americans from Indianapolis, Yoruba living in Ibadan	✓	✓				✓		
NCRAD Family	AD and other dementia families	✓	✓				✓	✓	
NIA-LOAD	Late Onset AD Families, Controls	✓	✓				✓		
ARTFL	FTLD syndrome cases and healthy family members	✓		✓	✓	✓		✓	✓
LEFFTDS	FTLD family study with known genetic mutations (symptomatic and asymptomatic family members)	✓		✓	✓	✓		✓	✓

ADC Samples Coming to NCRAD

Study/PI/Grant	Subject Description	Samples to be Transferred
Study: Case Western ADC PI: Alan Lerner Grant: P50AG008012	The Case Western ADC was previously funded by the NIA and assessed and followed a large number of subjects. NCRAD will receive aliquots from subjects with MDS/UDS data at NACC.	<ul style="list-style-type: none">• DNA and buffy coats• Brain tissue• Plasma aliquots• CSF aliquots
Study: Banner/Mayo PIs: Eric Reiman and Richard Caselli Grant: P30AG031581	The Arizona ADC was funded in 1998, but subjects were enrolled at the Banner and Mayo Clinic Arizona sites beginning in 1994. Samples from these subjects will be transferred to NCRAD. Clinical data for these subjects was already transferred to NACC.	<ul style="list-style-type: none">• Plasma aliquots• Serum aliquots• CSF aliquots

Samples (above) collected under rapid processing protocol, but may be variable to final ADC Biomarker Initiative approved protocol

Accelerating Biomarker Development: Planning For the First Year

ADC

Propose blood collection from 3,000 subjects



Volume	Product
2x10 ml	Buffy coat (DNA) + Plasma aliquots
2x10 ml	PBMCs
1x10 ml	Serum aliquots
1x2.5 ml	RNA

Uniformly collected & processed blood samples



NCRAD

Buffy coat, plasma, serum aliquots; Blood for RNA, PBMCs

Plan to link specimens and data

- NCRAD will extend our catalogs to also display all available samples
 - Link through visit and NACC ID to NACC dataset
- How much NACC data
 - Link to NACC provided minimal dataset hosted at NCRAD
 - Link to subset of NACC variables joined to NCRAD catalog
- Suppose you want to query based on the more extensive UDS data at NACC?

Join Data

For many studies, more extensive data can be obtained from the study's data coordinating center. The catalog system supports joining this external data with the NCRAD biospecimen catalog data. This allows researchers to easily filter and select specimens based on criteria outside of those available in the catalog.

By clicking here, the join external data box appears.

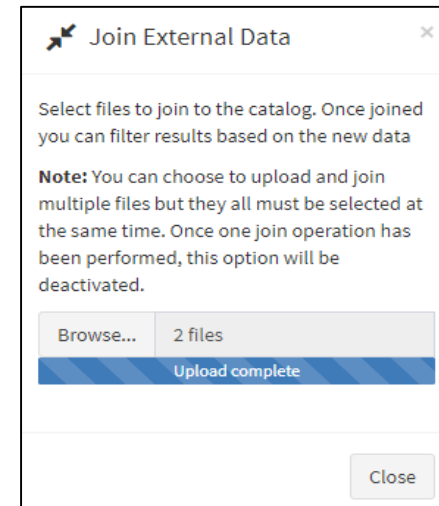


The screenshot shows the NCRAD biospecimen catalog interface. The top navigation bar includes 'Dictionary', 'Join Data', 'Selection', 'Download', 'Main', and 'Tools'. The 'Join Data' button is highlighted. A modal dialog box titled 'Join External Data' is open, displaying instructions on how to join external data files. The dialog includes a 'Browse...' button and a 'No file selected' message. The background shows a table of specimens with columns for NACCID, Specimen Type, Specimen Count, and Last Diagnosis.

NACCID	Specimen Type	Specimen Count	Last Diagnosis
20527	NACC031676	DNA	154 Alzheimer's disease (AD)
20590	NACC046061	DNA	128 Alzheimer's disease (AD)
20589	NACC468633	DNA	222 FTLD, other
20551	NACC722051	DNA	2 Alzheimer's disease (AD)
20722	NACC815678	DNA	50 Alzheimer's disease (AD)
20873	NACC404251	DNA	828 Alzheimer's disease (AD)
20725	NACC793322	DNA	78 Alzheimer's disease (AD)
20878	NACC165757	DNA	772 Not applicable, not cognitively impaired
23500	NACC666455	DNA	230 FTLD, other
23359	NACC928893	DNA	180 Not applicable, not cognitively impaired
23361	NACC968763	DNA	126 Alzheimer's disease (AD)
20881	NACC394961	DNA	298 Vascular brain injury or vascular dementia including stroke
23353	NACC987523	DNA	268 Alzheimer's disease (AD)
23421	NACC528063	DNA	246 Alzheimer's disease (AD)
21409	NACC835931	DNA	52 FTLD, other
21412	NACC032271	DNA	304 Lewy body disease (LbD)
21486	NACC611039	DNA	138 Alzheimer's disease (AD)

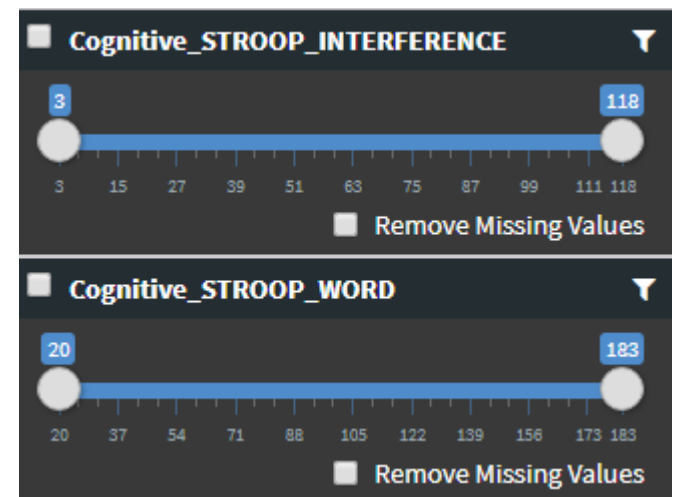
Join Data

- Once data is uploaded, data is joined by the Subject Identifier and Visit Code for that study. If successful, the Join External Data window will note “Upload Complete”.
- The “All files joined” banner will be green indicating which fields were joined from the external data and catalog data. In this example, the Subject data was joined by SUBJID while the longitudinal Cognitive data was joined by SUBJID and EVENT.
- Joined data is analyzed during the upload process to determine data type along with min/max for numeric values or choices for drop-downs. Uploaded data is prefixed by the filename and is appended to the field list. other fields on the left field panel.



All files joined

Joining phs000222.v4.pht001154.v3.p2.Predict_HD_Subject.MULTI.txt by SUBJID
Joining phs000222.v4.pht002872.v2.p2.c1.Cognitive.GRU.txt by SUBJID, EVENT



Questions...

- What kind of questions do you want to be able to ask with specimens?
- What kinds of specimens do you need?
- What are the criteria you want to use to select subjects?

Acknowledgement

- NCRAD Executive Committee
- NCRAD Biospecimen Review Committee
- NIA
- Alzheimer Disease Centers
- NACC
- NIAGADS
- ADGC
- Studies contributing samples to NCRAD

Questions/Contact:
kelfaber@iu.edu or
alzstudy@iu.edu



NCRAD Staff

