

# ADNI Data Training Part 1

ADNI Biostatistics Core Team

UC Davis School of Medicine  
Department of Public Health Sciences

April 4, 2013



# Outline

## Today's Presentation Outline

- About ADNI
- How to navigate ADNI website
- How to download data
- How to use visualization tool

# About ADNI

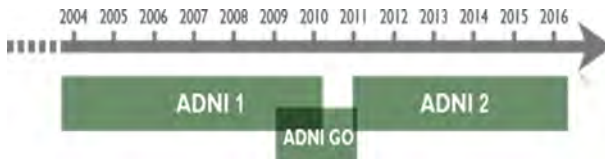
## The Alzheimer's Disease Neuroimaging Initiative (ADNI)

- On-going multisite longitudinal study
- Subjects are recruited from 55 sites in the U.S. and Canada
- Five diagnostic categories
  - cognitively normal (CN)
  - significant memory concern (SMC) - newly added group
  - early MCI (EMCI)
  - late MCI (LMCI)
  - mild AD (AD)
- Collect clinical/imaging/genetic/biospecimen/biomarker data
- Validate biomarkers for use in Alzheimer's disease clinical trials.

# About ADNI

The study has 3 phases

- ADNI1: 5 years from October 2004
- ADNIGO: 2 years from September 2009
- ADNI2: 5 years from September 2011



# About ADNI

The study has 3 phases

- New participants were recruited during each phase of the study.
- Participants are followed and reassessed over time to track the pathology of the disease as it progresses.

	Normal	EMCI	MCI	LMCI	AD	MRI	fMRI	DTI	FDG	AV45	PIB	Biosamples
ADNI 1	200	-	400	-	200							
ADNI GO	↓	200	↓	-	-							
ADNI 2	150	150	↓	150	200							

# Navigate ADNI website

Two important websites for ADNI.

- ADNI-Info website
- LONI (Laboratory of Neuro Imaging, UCLA) website

# ADNI-Info website

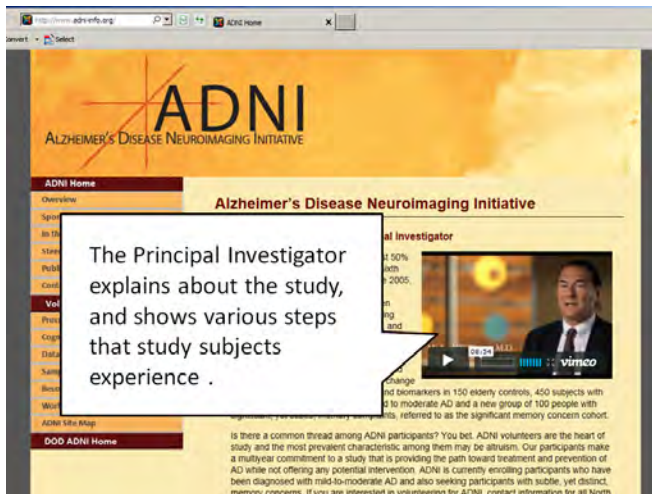
ADNI-info Homepage: [www.adni-info.org](http://www.adni-info.org)



The screenshot shows the ADNI-Info website homepage in a web browser. The browser's address bar displays <http://www.adni-info.org/>. The website features a large orange header with the ADNI logo and the text "ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE". A left sidebar contains a navigation menu with links such as "ADNI Home", "Overview", "Sponsors and Partners", "In the News", "Steering Committee Meetings", "Publications", "Contact Us", "Volunteer for ADNI", "Procedures, Protocols and Grants", "Cognitive Testing", "Data", "Samples", "Become an ADNI Site", "Workwide ADNI", "ADNI Site Map", and "DOD ADNI Home". The main content area is titled "Alzheimer's Disease Neuroimaging Initiative" and includes a "Welcome from the ADNI Principal Investigator" section. This section contains a video player showing a man speaking, with a "vimeo" logo and a play button. Below the video, there is text describing the ADNI study, its phases (ADNI GO and ADNI 2), and the types of participants being recruited. The text mentions that ADNI is currently enrolling participants who have been diagnosed with mild-to-moderate AD and also seeking participants with subtle, yet distinct, memory concerns. It concludes by stating that ADNI volunteers are the heart of the study and that the study is providing the path toward treatment and prevention of AD while not offering any potential intervention.

# ADNI-Info website

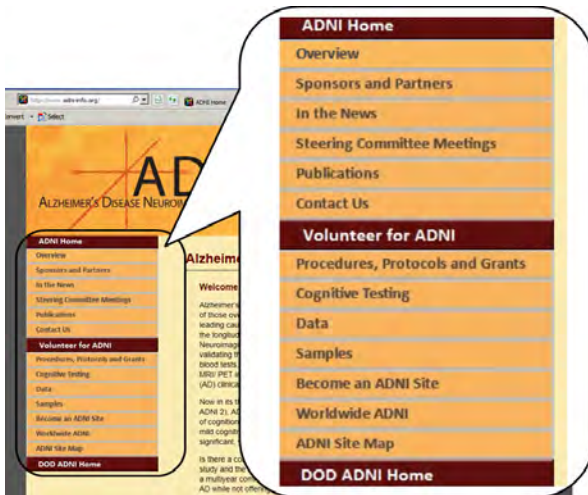
ADNI introduction video (9 minutes).



The screenshot shows the ADNI website interface. At the top, the URL is <http://www.adni-info.org/>. The main header features the ADNI logo and the text "ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE". Below this, there is a navigation menu on the left with links like "ADNI Home", "Overview", "Sponsor", "In The", "Steering", "Public", "Coord", "Vol", "Pres", "Cogn", "Data", "Sam", "Bios", "Wor", "ADNI Site Map", and "DOD ADNI Home". The main content area is titled "Alzheimer's Disease Neuroimaging Initiative". A video player is embedded, showing a man speaking. A text box with a speech bubble overlay reads: "The Principal Investigator explains about the study, and shows various steps that study subjects experience." Below the video, there is a paragraph of text: "Is there a common thread among ADNI participants? You bet. ADNI volunteers are the heart of study and the most prevalent characteristic among them may be altruism. Our participants make a multiyear commitment to a study that is providing the path toward treatment and prevention of AD while not offering any potential intervention. ADNI is currently enrolling participants who have been diagnosed with mild-to-moderate AD and also seeking participants with subtle, yet distinct, memory concerns. If you are interested in volunteering for ADNI, contact information for all North

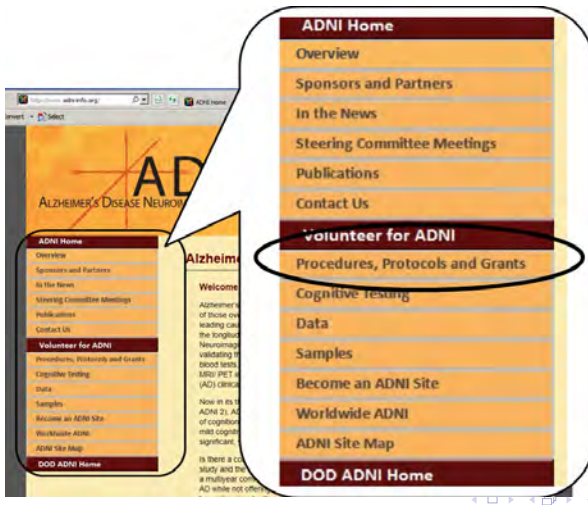
## ADNI-Info website

ADNI-info website has basic information about ADNI study.



# ADNI-Info website

Link to the ADNI Procedure Manuals.



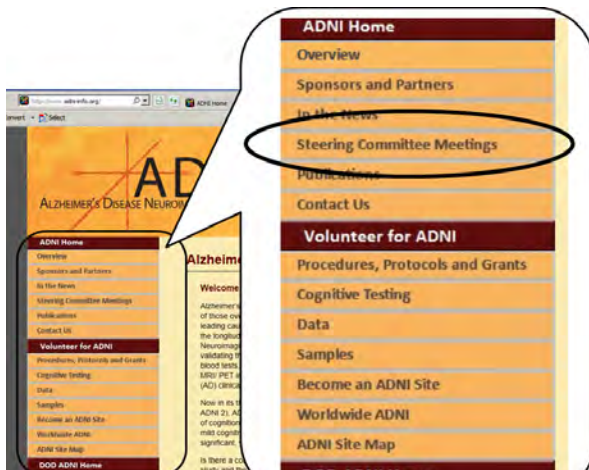
# ADNI-Info website

Procedure manuals are located here.

The screenshot shows the ADNI (Alzheimer's Disease Neuroimaging Initiative) website. The header features the ADNI logo and the text 'ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE'. A left sidebar contains navigation links under 'ADNI Home' (Overview, Sponsors and Partners, In the News, Steering Committee Meetings, Publications, Contact Us) and 'Volunteer for ADNI' (Procedures, Protocols and Grants, Cognitive Testing, Data, Samples, Become an ADNI Site, Worldwide ADNI, ADNI Site Map). Below this is a 'DOD ADNI Home' link. The main content area is titled 'ADNI Procedures, Protocols and Grants'. Under 'ADNI Grant Applications', it lists links for 'Grant Applications', 'Download the ADNI 2 Grant Application', 'Download the Scientific Portion of the ADNI GO Grant Application', 'Download the ADNI Grant Application', and 'Download the ADNI Neuropathology Core Grant Application (posted 5/16/2007)'. Under 'ADNI Protocols', it lists links for 'Protocols', 'Download the ADNI RFA', 'Download the ADNI 2 Protocol', and 'Download the ADNI 1 Protocol'. A callout box with a black border and white background highlights the following links: 'ADNI 1 Procedures Manual', 'ADNI GO Procedures Manual', and 'ADNI 2 Procedures Manual'. Below the callout box, a small box lists 'ADNI 1 Procedures Manual', 'ADNI GO Procedures Manual', and 'ADNI 2 Procedures Manual'.

# ADNI-Info website

Steering Committee Meeting page has slides from previous presentations.



# ADNI-Info website

Presentation slides are available to view/download.



The screenshot shows the ADNI (Alzheimer's Disease Neuroimaging Initiative) website. The header features the ADNI logo and the text "ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE". A left sidebar contains a navigation menu with links: ADNI Home, Overview, Sponsors and Partners, In the News, Steering Committee Meetings, Publications, Contact Us, Volunteer for ADNI, Procedures, Protocols and Grants, Cognitive Testing, Data, Samples, Become an ADNI Site, Worldwide ADNI, ADNI Site Map, and DOD ADNI Home. The main content area is titled "ADNI Steering Committee Meetings" and contains a paragraph stating that meetings take place annually in the spring, with the next meeting in San Diego, CA on March 18, 2013. It also lists the 2013 steering committee members and provides a list of past meetings with expand/collapse links.

**ADNI**  
ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE

**ADNI Home**  
Overview  
Sponsors and Partners  
In the News  
Steering Committee Meetings  
Publications  
Contact Us  
**Volunteer for ADNI**  
Procedures, Protocols and Grants  
Cognitive Testing  
Data  
Samples  
Become an ADNI Site  
Worldwide ADNI  
ADNI Site Map  
**DOD ADNI Home**

## ADNI Steering Committee Meetings

ADNI Steering Committee Meetings take place annually in the spring. The next meeting will take place in San Diego, CA on March 18, 2013. Presentation slides from past meetings are available for download.

2013 ADNI Steering Committee Members

**April 22, 2012 New Orleans, LA**  
[Expand / collapse](#)

**April 09, 2011 Los Angeles, CA**  
[Expand / collapse](#)

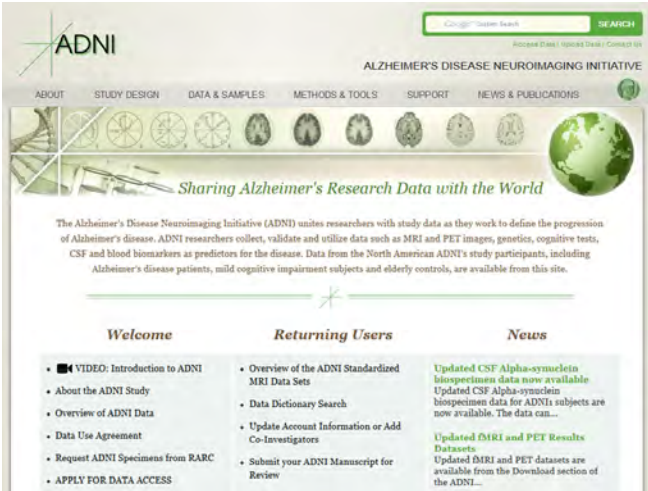
**April 12, 2010 Toronto, Canada**  
[Expand / collapse](#)

**April 27, 2009 Seattle, WA**  
[Expand / collapse](#)

**April 14, 2008 Chicago, IL**  
[Expand / collapse](#)

# LONI website: Home Page

ADNI Data Page: [adni.loni.ucla.edu](http://adni.loni.ucla.edu)



The screenshot shows the ADNI (Alzheimer's Disease Neuroimaging Initiative) website. At the top, there is a search bar with the text "Google Custom Search" and a "SEARCH" button. Below the search bar, the text "ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE" is displayed. A navigation menu includes links for ABOUT, STUDY DESIGN, DATA & SAMPLES, METHODS & TOOLS, SUPPORT, and NEWS & PUBLICATIONS. The main banner features a collage of brain scans and a globe, with the text "Sharing Alzheimer's Research Data with the World". Below the banner, a paragraph describes the ADNI initiative: "The Alzheimer's Disease Neuroimaging Initiative (ADNI) unites researchers with study data as they work to define the progression of Alzheimer's disease. ADNI researchers collect, validate and utilize data such as MRI and PET images, genetics, cognitive tests, CSF and blood biomarkers as predictors for the disease. Data from the North American ADNI's study participants, including Alzheimer's disease patients, mild cognitive impairment subjects and elderly controls, are available from this site." The page is divided into three columns: "Welcome", "Returning Users", and "News". The "Welcome" column lists links for a video introduction, about the study, overview, data use agreement, request for specimens, and a link to apply for data access. The "Returning Users" column lists links for an overview of standardized MRI data sets, data dictionary search, update account information, and submit a manuscript for review. The "News" column contains two updates: "Updated CSF Alpha-synuclein biospecimen data now available" and "Updated fMRI and PET Results Datasets".

ADNI

ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE

ABOUT STUDY DESIGN DATA & SAMPLES METHODS & TOOLS SUPPORT NEWS & PUBLICATIONS

*Sharing Alzheimer's Research Data with the World*

The Alzheimer's Disease Neuroimaging Initiative (ADNI) unites researchers with study data as they work to define the progression of Alzheimer's disease. ADNI researchers collect, validate and utilize data such as MRI and PET images, genetics, cognitive tests, CSF and blood biomarkers as predictors for the disease. Data from the North American ADNI's study participants, including Alzheimer's disease patients, mild cognitive impairment subjects and elderly controls, are available from this site.

**Welcome**

- VIDEO: Introduction to ADNI
- About the ADNI Study
- Overview of ADNI Data
- Data Use Agreement
- Request ADNI Specimens from RARC
- APPLY FOR DATA ACCESS**

**Returning Users**

- Overview of the ADNI Standardized MRI Data Sets
- Data Dictionary Search
- Update Account Information or Add Co-Investigators
- Submit your ADNI Manuscript for Review

**News**

**Updated CSF Alpha-synuclein biospecimen data now available**  
Updated CSF Alpha-synuclein biospecimen data for ADNI subjects are now available. The data can...

**Updated fMRI and PET Results Datasets**  
Updated fMRI and PET datasets are available from the Download section of the ADNI...

# LONI website: Home Page

New video from LONI.

The screenshot shows the ADNI (Alzheimer's Disease Neuroimaging Initiative) website. At the top, there is a search bar and the text "ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE". Below this is a navigation menu with links: ABOUT, STUDY DESIGN, DATA & SAMPLES, METHODS & TOOLS, SUPPORT, and NEWS & PUBLICATIONS. The main content area features a banner with the text "Sharing" and a description of the initiative. A callout box, resembling a speech bubble, is overlaid on the right side of the page, containing a list of navigation links. The first link, "VIDEO: Introduction to ADNI", is circled in red. Below the callout box, there is a "Welcome" section with a list of links, including "VIDEO: Introduction to ADNI", "About the ADNI Study", "Overview of ADNI Data", "Data Use Agreement", "Request ADNI Specimens from RARC", and "APPLY FOR DATA ACCESS".

ADNI

ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE

ABOUT STUDY DESIGN DATA & SAMPLES METHODS & TOOLS SUPPORT NEWS & PUBLICATIONS

Sharing

The Alzheimer's Disease Neuroimaging Initiative is a national effort to advance the understanding of Alzheimer's disease. ADNI researchers are studying the progression of the disease, and how it affects the brain, using a variety of imaging techniques, including MRI, PET, and CSF and blood biomarkers as predictors of Alzheimer's disease patients, mild cognitive impairment, and normal aging.

VIDEO: Introduction to ADNI

- VIDEO: Introduction to ADNI
- About the ADNI Study
- Overview of ADNI Data
- Data Use Agreement
- Request ADNI Specimens from RARC
- APPLY FOR DATA ACCESS

Welcome

- VIDEO: Introduction to ADNI
- About the ADNI Study
- Overview of ADNI Data
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- APPLY FOR DATA ACCESS

# LONI website: Home Page

A brief introduction to ADNI data.

The screenshot shows the LONI website home page. At the top, there is a navigation bar with links: "About ADNI", "Navigate ADNI website", "LONI: Download data", and "Visualization Tool". Below this, the main content area features a large video player titled "Introduction to ADNI Data". The video player shows a title card with the ADNI logo and the text "Alzheimer's Disease Neuroimaging Initiative" and "Laboratory of Neuro Imaging". To the right of the video player, there is a sidebar with links: "SEASE NEUROIMAGING INITIATIVE", "NEWS & PUBLICATIONS", and "Introduction to ADNI". Below the video player, there is a "Welcome" section with a list of links: "VIDEO: Introduction to ADNI", "About the ADNI Study", "Overview of ADNI Data", "Data Use Agreement", "Request ADNI Specimens from RARC", and "APPLY FOR DATA ACCESS". A large speech bubble graphic is overlaid on the right side of the page, containing the text "Introduction to ADNI", "Study", "Data", and a list of links: "Data Use Agreement", "Request ADNI Specimens from RARC", and "APPLY FOR DATA ACCESS".

YouTube - Mozilla Firefox  
www.youtube.com/watch?v=79H3Tndd0g=2

Introduction to ADNI Data

Alzheimer's Disease Neuroimaging Initiative  
**ADNI**  
Laboratory of Neuro Imaging

SEASE NEUROIMAGING INITIATIVE  
NEWS & PUBLICATIONS

Introduction to ADNI  
Study  
Data

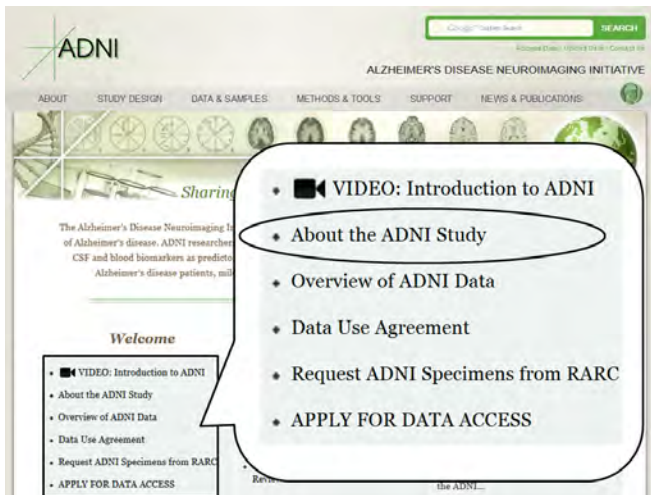
Welcome

- VIDEO: Introduction to ADNI
- About the ADNI Study
- Overview of ADNI Data
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- Request ADNI Specimens from RARC
- APPLY FOR DATA ACCESS

- Data Use Agreement
- Request ADNI Specimens from RARC
- APPLY FOR DATA ACCESS

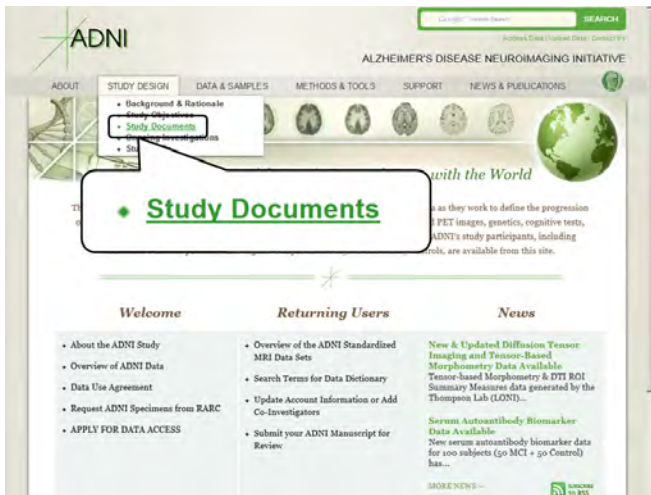
# LONI website: Home Page

You can learn more about ADNI.



# LONI website: Home Page

You can view some study documents under **STUDY DESIGN**



# LONI website: Study Documents

Complete Study Schedule can be downloaded.

ADNI

ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE

ABOUT STUDY DESIGN DATA & SAMPLES METHODS & TOOLS SUPPORT NEWS & PUBLICATIONS

Study Documents

Study Information:

- ADNI 1 Procedures Manual
- ADNI GO Procedures Manual
- ADNI 2 Procedures Manual
- Complete ADNI Study Schedule (PDF)
- Complete ADNI Study Schedule (xls)

MRI Protocols:

- Complete ADNI Study Schedule (PDF)
- Complete ADNI Study Schedule (xls)

Details about the clinical assessments can be found in the following documents:

- ADNI 1 Procedures Manual
- ADNI GO Procedures Manual
- ADNI 2 Procedures Manual

Biospecimen Protocols:

Biosamples: Neuropathological Tissue:

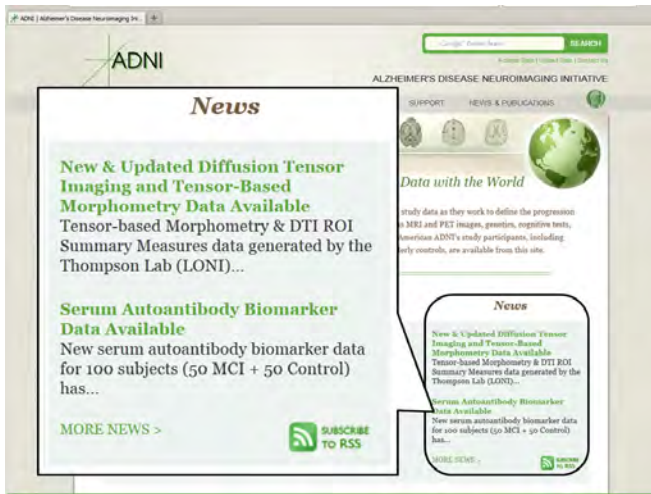
# LONI website: Study Documents

**Complete Study Schedule** tells you which tests are done at each visit.

ADNI														ADNI GO: New Part														
Study Schedule																												
	Screen			Baseline			Month 6			Month 12			Month 18			Month 24			Month 30			Month 36			Screen	Baseline	Month 3	Month 6
	CN	MC	AD	CN	MC	AD	CN	MC	AD	CN	MC	AD	CN	MC	AD	CN	MC	AD	CN	MC	AD	CN	MC	AD	EMC	EMC1	EMC2	EMC3
English Study	X	X	X																									
Obtain Consent	X	X	X																									
Demographics, Family History, Education and Medical History, Medical History, Physical Exam, Neurological Exam, Neuropsychological Exam, Neuropsychological Exam, Neuropsychological Exam	X	X	X																						X			
Vital Signs	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Weight																												
Screening Labs	X	X	X																									
ADNI	X	X	X																									
Blood Sample Collection for APOE Genotyping and GWAS																												
Cell Immunization Sample Collection																												
American National Adult Reading Test				X	X	X																						
Mini-Mental State Examination	X	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Logical Memory I and II	X	X	X							X	X	X				X	X	X				X	X	X				
Everyday Cognition (ECG)																												
Executive Cognitive Assessment (EMC)																												
Digit Span				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Category Fluency				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Category Fluency (Animals)																												
Trail Making B				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Digit Symbol				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Random Reading Test				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Auditory verbal learning Test				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Geriatric Depression Scale	X	X	X																									
Clock Drawing				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Neuropsychiatric Inventory																												
Neuropsychiatric Inventory Q				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ADNI-Go	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ADNI-Go 12 (with Delivered Form)																												

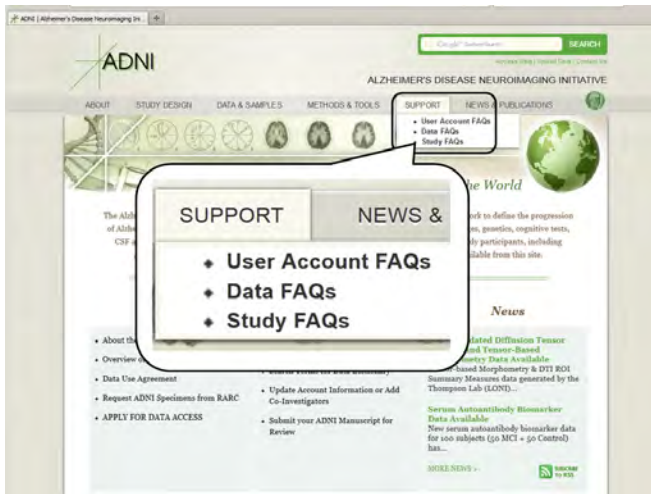
# LONI website: Home Page

Please check News regularly or subscribe to RSS.



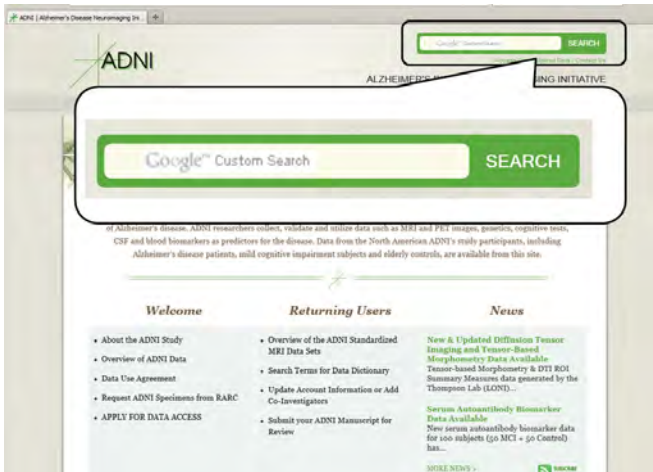
# LONI website: Home Page

Frequently asked questions are found under **SUPPORT**.



# LONI website: Home Page

You can also use the Google Site Search to find information on LONI website.



# LONI website: Ask the Experts

**Ask the Experts** page will be available soon. (tentatively April 8th)

ABOUT STUDY DESIGN DATA & SAMPLES METHODS & TOOLS SUPPORT NEWS & PUBLICATIONS

Home > Support > Experts Knowledge Base > Ask the Experts

## Ask the Experts

Use this online form to submit an ADNI question to our experts. All fields are required. Please allow 3-5 business days for an email reply. Responses are made through the Experts Knowledge base and may be published to this site.

Name  Email

My question is for

Question

Enter the text you see in the captcha box on the right

**Vge8q**

<b>Neuropathology Core</b> <ul style="list-style-type: none"><li>• Neuropathological examination</li><li>• Brain tissue archive</li></ul>	<b>Data Sharing and Publications Committee (DPC)</b> <ul style="list-style-type: none"><li>• Your ADNI data application</li><li>• Manuscript submissions</li><li>• Data use policies</li></ul>	<b>Genetics Core</b> <ul style="list-style-type: none"><li>• Genetic data and samples</li><li>• MRI and PET endophenotypes</li></ul>	<b>Biomarker Core</b> <ul style="list-style-type: none"><li>• Biological fluids bank</li><li>• Biomarkers such as APOE genotyping, Plasma, CSF Aβ and tau, other promising biomarkers</li></ul>
<b>MRI Core</b> <ul style="list-style-type: none"><li>• MRI protocols</li><li>• MRI data</li></ul>	<b>Clinical Core</b> <ul style="list-style-type: none"><li>• Clinical data, CRFs</li><li>• Clinical Protocols</li></ul>	<b>Informatics Core</b> <ul style="list-style-type: none"><li>• Data archive access &amp; usage</li><li>• Data archive technical issues</li></ul>	<b>Coordinating Center</b> <ul style="list-style-type: none"><li>• Data collection</li></ul>

# LONI website: Ask the Experts

Q&A from **Ask the Experts** will be posted on the **Experts Knowledge Base**, and will be searchable by users.

The screenshot shows the ADNI website's 'Experts Knowledge Base' section. At the top, there is a Google Custom Search bar and the ADNI logo. A navigation menu includes links for ABOUT, STUDY DESIGN, DATA & SAMPLES, METHODS & TOOLS, SUPPORT, and NEWS & PUBLICATIONS. The breadcrumb trail reads 'Home > Support > Experts Knowledge Base'. The main heading is 'Experts Knowledge Base'. Below it, a welcome message states: 'Welcome to the ADNI Experts Knowledge Base. This section contains a searchable list of unedited questions and answers received by ADNI.' Another paragraph explains: 'We often receive questions that have already been posted elsewhere on this site. Be sure to review the FAQ, or search the Experts Knowledge Base by entering your keywords below:'. A search input field with the placeholder 'Type your term here...' and a magnifying glass icon is provided. Below the search field, a note says: 'If you still cannot find an answer to your questions, please fill out the "Ask the Experts" online form. Be as specific as possible and include any webpages or file names if necessary.' On the left, there is a 'Core Q&As' section with a link to 'All Cores' and a sub-link for 'Clinical Core'. On the right, there is a list of Q&As. The first entry is 'All Core Q&As' with a date of 01/22/13. Below it is 'Testing the fixed links.' with a date of 01/22/13. The next entry is 'Is it possible to determine whether some of the early patients enrolled under ADNI GO/2 already converted stage of late MCI during the trial course. Are these changes documented somewhere in the ADNI data?' with a date of 01/22/13. Below that is 'What is ADNI?' with a date of 01/22/13. The last visible entry is 'Here is a final test question to answer:' with a date of 01/22/13. At the bottom right, there are navigation icons for back, forward, and search.

ADNI

Google Custom Search

ALZHEIMER'S DISEASE NEUROIMAGING

ABOUT STUDY DESIGN DATA & SAMPLES METHODS & TOOLS SUPPORT NEWS & PUBLICATIONS

Home > Support > Experts Knowledge Base

### Experts Knowledge Base

Welcome to the ADNI Experts Knowledge Base. This section contains a searchable list of unedited questions and answers received by ADNI.

We often receive questions that have already been posted elsewhere on this site. Be sure to review the [FAQ](#), or search the Experts Knowledge Base by entering your keywords below:

Type your term here...

If you still cannot find an answer to your questions, please fill out the "Ask the Experts" online form. Be as specific as possible and include any webpages or file names if necessary.

#### Core Q&As

All Cores

Clinical Core

#### All Core Q&As

Testing the fixed links.  
01/22/13

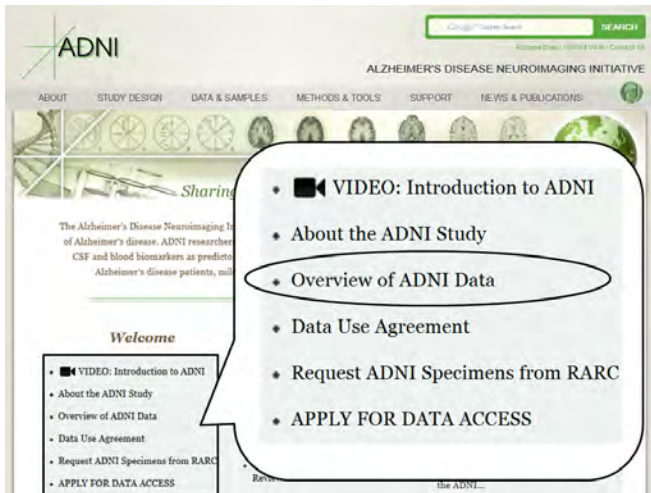
Is it possible to determine whether some of the early patients enrolled under ADNI GO/2 already converted stage of late MCI during the trial course. Are these changes documented somewhere in the ADNI data?  
01/22/13

What is ADNI?  
01/22/13

Here is a final test question to answer:  
01/22/13

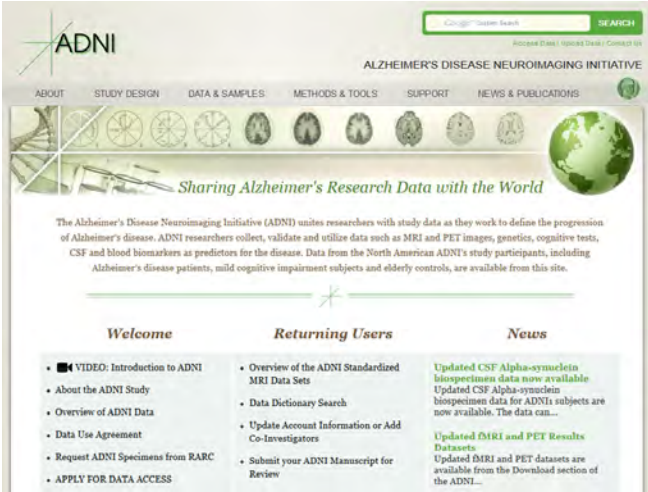
# LONI: Home Page

You can learn more about data from here.



# Download Data

## How to download data from LONI



The screenshot shows the ADNI (Alzheimer's Disease Neuroimaging Initiative) website. At the top, there is a search bar with the text "Go to: Search" and a "SEARCH" button. Below the search bar, the text "ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE" is displayed. A navigation menu includes links for "ABOUT", "STUDY DESIGN", "DATA & SAMPLES", "METHODS & TOOLS", "SUPPORT", and "NEWS & PUBLICATIONS". The main banner features the ADNI logo, a series of brain scan images, and a globe. The text "Sharing Alzheimer's Research Data with the World" is prominently displayed. Below the banner, a paragraph describes the ADNI mission: "The Alzheimer's Disease Neuroimaging Initiative (ADNI) unites researchers with study data as they work to define the progression of Alzheimer's disease. ADNI researchers collect, validate and utilize data such as MRI and PET images, genetics, cognitive tests, CSF and blood biomarkers as predictors for the disease. Data from the North American ADNI's study participants, including Alzheimer's disease patients, mild cognitive impairment subjects and elderly controls, are available from this site." The page is divided into three columns: "Welcome", "Returning Users", and "News". The "Welcome" column lists links for a video introduction, study overview, data use agreement, specimen request, and data access application. The "Returning Users" column lists links for MRI data sets, data dictionary search, account updates, and manuscript submission. The "News" column highlights updates on CSF Alpha-synuclein biospecimen data and MRI and PET results datasets.

ADNI

Go to: Search SEARCH

ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE

ABOUT STUDY DESIGN DATA & SAMPLES METHODS & TOOLS SUPPORT NEWS & PUBLICATIONS

Sharing Alzheimer's Research Data with the World

The Alzheimer's Disease Neuroimaging Initiative (ADNI) unites researchers with study data as they work to define the progression of Alzheimer's disease. ADNI researchers collect, validate and utilize data such as MRI and PET images, genetics, cognitive tests, CSF and blood biomarkers as predictors for the disease. Data from the North American ADNI's study participants, including Alzheimer's disease patients, mild cognitive impairment subjects and elderly controls, are available from this site.

**Welcome**

- VIDEO: Introduction to ADNI
- About the ADNI Study
- Overview of ADNI Data
- Data Use Agreement
- Request ADNI Specimens from RARC
- APPLY FOR DATA ACCESS

**Returning Users**

- Overview of the ADNI Standardized MRI Data Sets
- Data Dictionary Search
- Update Account Information or Add Co-Investigators
- Submit your ADNI Manuscript for Review

**News**

**Updated CSF Alpha-synuclein biospecimen data now available**  
Updated CSF Alpha-synuclein biospecimen data for ADNI subjects are now available. The data can...

**Updated fMRI and PET Results Datasets**  
Updated fMRI and PET datasets are available from the Download section of the ADNI...

# LONI: Access Data

Go to **Access Data** page from **DATA & SAMPLES**.

The screenshot shows the ADNI (Alzheimer's Disease Neuroimaging Initiative) website. The header includes the ADNI logo, a search bar, and navigation links: ABOUT, STUDY DESIGN, DATA & SAMPLES, METHODS & TOOLS, SUPPORT, and NEWS & PUBLICATIONS. The 'DATA & SAMPLES' menu is expanded, showing options like Access Data, Clinical Data, MR Image Data, PET Image Data, Genetic Data, Biospecimen Data, Access Samples, Data FAQs, ADNI Data Inventory, and ADNI Data Usage Stats. A callout box highlights the 'Access Data' link. Below the navigation, the main content area features the heading 'Research Data with the World' and a paragraph about providing researchers with study data. The footer contains three columns: 'Welcome' (with links like 'About the ADNI Study', 'Overview of ADNI Data', 'Data Use Agreement', 'Request ADNI Specimens from RARC', and 'APPLY FOR DATA ACCESS'), 'Returning Users' (with links like 'Overview of the ADNI Standardized MRI Data Sets', 'Search Terms for Data Dictionary', 'Update Account Information or Add Co-Investigators', and 'Submit your ADNI Manuscript for Review'), and 'News' (with updates on 'Diffusion Tensor Imaging and Tensor-Based Morphometry Data Available' and 'Serum Autoantibody Biomarker Data Available').

ADNI

ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE

ABOUT STUDY DESIGN DATA & SAMPLES METHODS & TOOLS SUPPORT NEWS & PUBLICATIONS

Access Data

Research Data with the World

researchers with study data as they work to define the progression of Alzheimer's disease. The data includes MRI and PET images, genetics, cognitive tests, and clinical data from the North American ADNI's study participants, including cognitively normal elderly controls, mild cognitive impairment subjects, and elderly controls, are available from this site.

Welcome

Returning Users

News

- About the ADNI Study
- Overview of ADNI Data
- Data Use Agreement
- Request ADNI Specimens from RARC
- APPLY FOR DATA ACCESS

- Overview of the ADNI Standardized MRI Data Sets
- Search Terms for Data Dictionary
- Update Account Information or Add Co-Investigators
- Submit your ADNI Manuscript for Review

New & Updated Diffusion Tensor Imaging and Tensor-Based Morphometry Data Available

Tensor-based Morphometry & DTI ROI Summary Measures data generated by the Thompson Lab (LONI)...

Serum Autoantibody Biomarker Data Available

New serum autoantibody biomarker data for 100 subjects (50 MCI + 50 Control) has...

MORE NEWS >

# LONI: Access Data

Or click **APPLY FOR DATA ACCESS**.

The image shows a screenshot of the Alzheimer's Disease Neuroimaging Initiative (ADNI) website. At the top, there is a search bar and navigation links: ABOUT, STUDY DESIGN, DATA & SAMPLES, METHODS & TOOLS, SUPPORT, and NEWS & PUBLICATIONS. A callout box, which is a speech bubble-like shape, is overlaid on the page. It contains a list of links, with the last one, 'APPLY FOR DATA ACCESS', circled. The list includes:

- VIDEO: Introduction to ADNI
- About the ADNI Study
- Overview of ADNI Data
- Data Use Agreement
- Request ADNI Specimens from RARC
- **APPLY FOR DATA ACCESS**

The background of the website shows a banner with the ADNI logo and a section titled 'Sharing' with text about Alzheimer's disease research.

# LONI: Access Data

Apply for Access to Data as shown below.  
(aibl is the Australian study.)

The screenshot shows the ADNI website with the following content:

- ADNI** logo and navigation bar: ABOUT, STUDY DESIGN, DATA & SAMPLES, METHODS & TOOLS, SUPPORT, NEWS & PUBLICATIONS.
- Access Data** section:
  - Text: "Through this website, qualified scientists may obtain access to imaging, clinical, genomic, and biomarker data for the purpose of scientific investigation, teaching or planning clinical research studies. ADNI Data is archived in a secured and encrypted system provided by the LONI Image Data Archive (IDA). The IDA also hosts related data from the Australian Imaging Biomarkers and Lifestyle Study of Aging (AIBL) study, which you may also apply for access to below. Please go to <http://www.aibl.edu.au> for more information about the AIBL study. Using ADNI data in your research, requires adherence to the information outlined in the documents listed below. Note: documents are subject to updates by ADNI."
  - List of links:
    - Data Sharing and Publication Policy
    - ADNI Data Use Agreement
    - ADNI Manuscript Citations
    - Group Acknowledgements List
- Apply for Access to** section:
  - Text: "The application process includes a **Data Use Agreement** and the submission of an application must include the information and the proposed research to be conducted on the links below to apply for ADNI data only."
  - Callout box: "Click here to go to **ADNI Data Use Agreement Page.**" (points to the ADNI Data Use Agreement link).
  - Callout box: "Application Review" (points to the Application Review link).
- Maintaining Your ADNI Data Use Account** section:
  - Text: "Part of the ADNI Data Use Agreement requires that you update your proposed analysis on an annual basis in order to keep your account activated. You will be sent a reminder before your account is deactivated by the DPC. You may also add or remove co-investigators, submit manuscripts and update contact information."

# LONI: Access Data

Apply for Access to Data.

- Read and Agree **ADNI Data Use Agreement**.
- Complete **ADNI Data Access Application** (name, e-mail address, institution, proposed analysis, etc.)
- All applications are reviewed by the **Data Publication and Sharing Committee** within one week of submission.

# LONI: Access Data

After you receive password, enter your e-mail and password to go to Data Download page.

**ADNI**  
ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE

ABOUT STUDY DESIGN DATA & SAMPLES METHODS & TOOLS SUPPORT NEWS & PUBLICATIONS

### Access Data

Through this website, qualified scientists may obtain access to imaging, clinical, genomic, and biomarker data for the purpose of scientific investigation, teaching or planning clinical research studies. ADNI Data is archived in a secured and encrypted system provided by the LONI Image Data Archive (IDA). The IDA also hosts related data from the Australian Imaging Biomarkers and Lifestyle Study of Aging (AIBL) study, which you may also apply for access to below. Please go to <http://www.aibl.edu.au> for more information about the AIBL study as outlined in the documents listed below. Note: documents

**EMAIL**

**PASSWORD**

**Submit**

**Data Archive Login**

Already have an ADNI Data account, you can login to the ADNI Data Archive to manage and download data.

**EMAIL**

**PASSWORD**

**Submit**

**Maintaining Your ADNI Data Use Account**

Part of the ADNI Data Use Agreement requires that you update your proposed analysis on an annual basis in order to keep

# LONI: Download Data

You can view DOWNLOAD instruction slide from here.



# LONI: Download Data

Click **DOWNLOAD** to go to **Download Study Data** page.

The screenshot shows the ADNI LONI website interface. At the top, there is a navigation bar with links: ADNI @ LONI, PROJECTS, SEARCH, **DOWNLOAD** (highlighted with a callout), and EXPLORE. To the right of the navigation bar is a 'LONI Home' link and a 'Download Data' icon. Below the navigation bar, the main content area is titled 'Alzheimer's Disease Neuroimaging' and contains a description of the initiative. A large, light blue button labeled 'DOWNLOAD' is prominently displayed in the center. To the right of the button, there is a 'Research Group' section with a 'Patient' button and a 'Gender' section with 'Unknown', 'Male', and 'Female' buttons. Below these sections, there is a bar chart showing the 'Number of Subjects' by 'Age' group. The chart has bars for 'Under 2', '2-11', '12-18', '19-29', '30-39', '40-49', '50-59', '60-69', '70-79', '80-89', '90-99', and 'Unknown'. The values for the bars are: Under 2 (1), 2-11 (1), 12-18 (0), 19-29 (0), 30-39 (0), 40-49 (0), 50-59 (67), 60-69 (404), 70-79 (879), 80-89 (363), 90-99 (1), and Unknown (1). Below the chart, there is a table with the following data:

Age Group	Number of Subjects
Under 2	1
2-11	1
12-18	0
19-29	0

At the bottom right, there are links for 'Export PDF' and 'Export CSV'.

# LONI: Download Data

You can download data from the **Download Study Data** page.

ADNI

ADNI @ LONI PROJECTS SEARCH DOWNLOAD EXPLORE LONI Home

Study Data Image Collections

## Download Study Data

Filter(s)

- ☐ Only include data that is new/changed since
- ☐ Select ALL tabular data (csv format)
- ☐ Select ALL documents and zip files (30.0 GB)
- ☐ Assessments
  - ☐ ALL Diagnosis
    - ☐ Conversions Confirmed by Conversion Committee (Conditionally) (ADN11)
    - ☐ Conversions Confirmed by Conversion Committee (ADN11)
    - ☐ Diagnosis and Symptom Checklist (ADN11.G0.2)
    - ☐ Diagnostic Summary - Baseline Changes (ADN11.G0.2)
    - ☐ Diagnostic Summary (ADN11.G0.2)
  - ☐ ALL Neuropsychological
    - ☐ ADAS Sub-Scores and Total Scores (ADN11)
    - ☐ Alzheimer's Disease Assessment Scale (ADAS) (ADN11)
    - ☐ Alzheimer's Disease Assessment Scale (ADAS) (ADN11.G0.2)
    - ☐ Clinical Dementia Rating Scale (CDR) (ADN11.G0.2)
    - ☐ Everyday Cognition - Participant Self Report (ADN11.G0.2)
    - ☐ Functional Activities Questionnaire (FAQ) (ADN11.G0.2)
    - ☐ Genetic Depression Scale (GDS) (ADN11.G0.2)
    - ☐ Item Level Data (ADAS-Cog, NART, MMSE, etc)
    - ☐ Item Level Data Dictionary
    - ☐ Mini-Mental State Examination (MMSE) (ADN11.G0.2)
    - ☐ Modified Hachinski Ischemia Scale (ADN11.G0.2)
    - ☐ Montreal Cognitive Assessment (MoCA) (ADN11.G0.2)
    - ☐ Neuropsychiatric Inventory (NPI) (ADN11)
    - ☐ Neuropsychiatric Inventory Questionnaire (NPI-Q) (ADN11.G0.2)

# LONI: Download Data

You can download a single data file by clicking an item as below.

The screenshot displays the LONI ADNI website interface. The top navigation bar includes links for 'ADNI @ LONI', 'PROJECTS', 'SEARCH', 'DOWNLOAD', 'EXPLORE', and 'LONI Home'. The 'Study Data' link is highlighted. Below the navigation bar, the 'Download Study Data' section is visible. On the left, a sidebar lists various data categories: Assessments, Biospecimen, Enrollment, Genetic, Imaging, Medical History, Study Info, Subject Characteristics, and ALL. A red arrow points from the 'ALL' link to a list of data items. The list includes 'ALL Diagnosis' and 'ALL Neuropsychological' categories. Under 'ALL Diagnosis', the item 'Diagnostic Summary (ADNI1.GG.2)' is selected. An Excel download dialog box is open, showing the file 'DKSURF\_PDXCONV\_ADNI1ALL.csv' and the option to 'Open with Microsoft Office Excel (default)'.

# LONI: Download Data

OR You can download a group of data. Click a group as below.

The screenshot shows the LONI ADNI website interface for downloading study data. The top navigation bar includes links for ADNI @ LONI, PROJECTS, SEARCH, DOWNLOAD, EXPLORE, and LONI Home. The main heading is 'Download Study Data'. On the left, a sidebar lists categories: Assessments, Biospecimen, Enrollment, Genetic, Imaging, Medical History, Study Info, and Subject Characteristics. The 'ALL' option under Subject Characteristics is highlighted. A red arrow points to the 'ALL Neuropsychological' checkbox, which is selected. The right side of the interface shows filter options, including 'Select ALL tabular data (csv format)', 'Select ALL documents and zip files (30.0 GB)', and a list of specific assessments and neuropsychological tests.

**Download Study Data**

**Filter(s)**

☐ Only include data that is new/changed since:

☐ Select ALL tabular data (csv format)

☐ Select ALL documents and zip files (30.0 GB)

☐ Assessments

☐ ALL Diagnosis

☐ Conversions Confirmed by Conversion Committee Dictionary (ADN11)

☐ Conversions Confirmed by Conversion Committee (ADN11)

☐ Diagnosis and Symptoms Checklist (ADN11 GO 2)

☐ Diagnostic Summary - Baseline Changes (ADN11 GO 2)

☐ Diagnostic Summary (ADN11 GO 2)

☒ **ALL Neuropsychological**

☒ ADAS Sub-Scores and Total Scores (ADN11)

☒ Alzheimer's Disease Assessment Scale (ADAS) (ADN11)

☒ Alzheimer's Disease Assessment Scale (ADAS) (ADN11 GO 2)

☒ Clinical Dementia Rating Scale (CDR) (ADN11 GO 2)

☒ Everyday Cognition - Participant Self Report (ADN11 GO 2)

☒ Functional Activities Questionnaire (FAQ) (ADN11 GO 2)

☒ Geriatric Depression Scale (GDS) (ADN11 GO 2)

☒ Item Level Data (ADAS-Cog, ATHART, MMSE, etc)

☒ Item Level Data Dictionary

☒ Mini-Mental State Examination (MMSE) (ADN11 GO 2)

☒ Modified Hachinski Ischemia Scale (ADN11 GO 2)

☒ Montreal Cognitive Assessment (MoCA) (ADN11 GO 2)

☒ Neurocognitive Inventory (NOCI) (ADN11)

☒ Neurocognitive Inventory (NOCI) (ADN11 GO 2)

# LONI: Download Data

Then click Download.

The screenshot shows the LONI ADNI website interface. At the top, there's a navigation bar with links: ADNI @ LONI, PROJECTS, SEARCH, DOWNLOAD, EXPLORE, and LONI Home. Below this is a section titled 'Download Study Data'. On the left, there's a sidebar with a tree view of data categories: Assessments, Biospecimen, Enrollment, Genetic, Imaging, Medical History, Study Info, and Subject Characteristics. The 'Assessments' category is expanded, showing a list of assessment types. A 'Filter(s)' section is visible, with options to 'Select ALL tabular data (csv format)' and 'Select ALL documents and zip files (30.0 GB)'. A red arrow points to the 'Download' button. A file download dialog box is open, showing the file 'Neuropsychological.zip' and asking what to do with it. The dialog box has options to 'Open with' (Windows Explorer (default)), 'Save File', or 'Do this automatically for files like this from now on'.

# LONI: Download Data

Optional: You can download data from a specific date.

ADNI @ LONI PROJECTS SEARCH DOWNLOAD EXPLORE LONI Home

Study Data Image Collections

## Download Study Data

Assessments  
Biospecimen  
Enrollment  
Genetic  
Imaging  
Medical History  
Study Info  
Subject Characteristics  
ALL

Only include data that is new/changed since

☐ Select ALL tabular data (csv format)  
☐ Select ALL documents and zip files

☐ Assessments

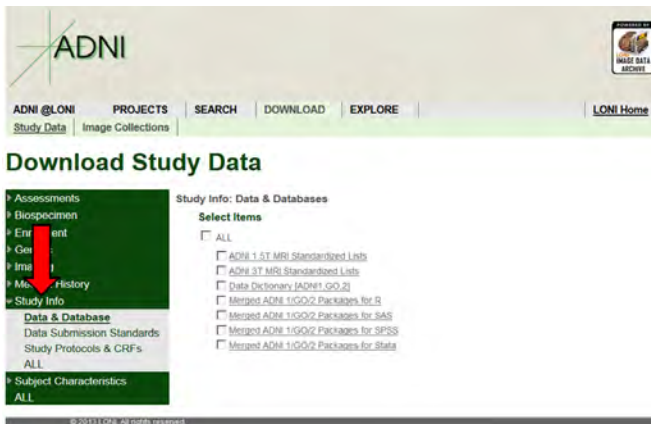
- ☐ ALL Diagnosis
  - ☐ Conversations Confirmed by Conver
  - ☐ Conversations Confirmed by Conver
  - ☐ Diagnosis and Symptoms Check
  - ☐ Diagnostic Summary - Baseline C
  - ☐ Diagnostic Summary (ADNI1 GO 2)
- ☐ ALL Neuropsychological
  - ☐ ADAS Sub-Scores and Total Scores (ADNI1)
  - ☐ Alzheimer's Disease Assessment Scale (ADAS) (ADNI1)
  - ☐ Alzheimer's Disease Assessment Scale (ADAS) (ADNI1 GO 2)
  - ☐ Clinical Dementia Rating Scale (CDR) (ADNI1 GO 2)
  - ☐ Everyday Cognition - Participant Self Report (ADNI1 GO 2)
  - ☐ Functional Activities Questionnaire (FAQ) (ADNI1 GO 2)
  - ☐ Genetic Depression Scale (GDS) (ADNI1 GO 2)
  - ☐ Item Level Data (ADAS-Cog, ANART, MMSE, etc)
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  - ☐ Montreal Cognitive Assessment (MoCA) (ADNI1 GO 2)
  - ☐ Neuropsychiatric Inventory (NPI) (ADNI1 GO 2)

March 2013

Su	Mo	Tu	We	Th	Fr	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

# LONI website: Download Study Data

ADNIMERGE packages are located under **Study Info**  
(R, SAS, STATA, and SPSS)



The screenshot shows the LONI website interface. At the top, there is a navigation bar with links: ADNI @ LONI, PROJECTS, SEARCH, DOWNLOAD, EXPLORE, and LONI Home. Below this is a section titled 'Download Study Data'. On the left, there is a sidebar menu with categories: Assessments, Biospecimen, Enrollment, Genomics, Imaging, Medical History, Study Info, and Subject Characteristics. A red arrow points to the 'Study Info' category. Under 'Study Info', there is a sub-menu with 'Data & Database' (selected), 'Data Submission Standards', 'Study Protocols & CRFs', and 'ALL'. The main content area is titled 'Study Info: Data & Databases' and contains a 'Select Items' section. Under 'Select Items', there is a checkbox for 'ALL' and a list of data packages with checkboxes: ADNI 1.5T MRI Standardized Lists, ADNI 3T MRI Standardized Lists, Data Dictionary (ADNI1.GOV2), Merged ADNI 1/GOV2 Packages for R, Merged ADNI 1/GOV2 Packages for SAS, Merged ADNI 1/GOV2 Packages for SPSS, and Merged ADNI 1/GOV2 Packages for Stata. At the bottom of the page, there is a copyright notice: © 2013 LONI. All rights reserved.

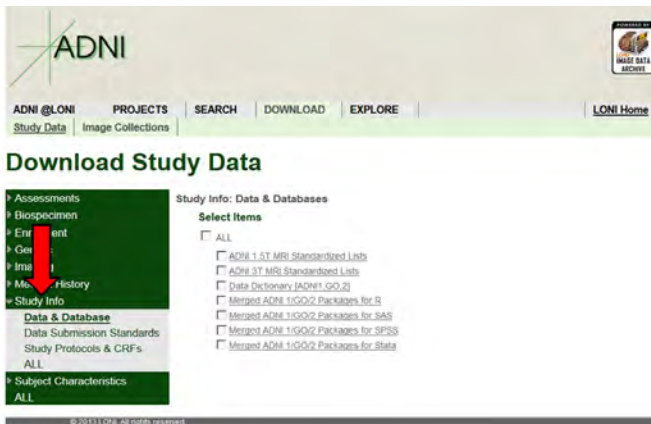
# ADNIMERGE

What is the ADNIMERGE package?

- This contains all ADNI data (except genetic data).
- R, SAS, Stata and SPSS versions are available.
- Mike Donohue from UC San Diego wrote R code to store R dataframes in SAS, Stata, and SPSS.
- It includes 'adnimerge' data which contains commonly used variables (i.e. demographic, clinical exam, MRI and PET variables)
- Labels & formatting have been incorporated in R, SAS, Stata.
- ADNIMERGE packages are updated daily.

# LONI : Download Data

Data dictionary is located under Study Info



The screenshot shows the LONI ADNI website interface. At the top, there is a navigation bar with links: ADNI @LONI, PROJECTS, SEARCH, DOWNLOAD, EXPLORE, and LONI Home. Below this is a section titled 'Download Study Data'. On the left, there is a sidebar with a list of categories: Assessments, Biospecimen, Enrollment, Genotype, Imaging, Metadata, and Study Info. A red arrow points to 'Study Info'. Under 'Study Info', there is a sub-section 'Data & Database' which includes links for 'Data Submission Standards', 'Study Protocols & CRFs', and 'ALL'. The main content area, titled 'Study Info: Data & Databases', contains a 'Select items' section with a list of checkboxes and links: ALL, ADNI 1.5T MRI Standardized Lists, ADNI 3T MRI Standardized Lists, Data Dictionary [ADNI1 GO 2], Merged ADNI 1/GO/2 Packages for R, Merged ADNI 1/GO/2 Packages for SAS, Merged ADNI 1/GO/2 Packages for SPSS, and Merged ADNI 1/GO/2 Packages for Stata. The footer of the page indicates '© 2012 LONI. All rights reserved.'

# LONI : Search Data

Back to the Home Page, we have **Data Dictionary Search**.

The screenshot shows the ADNI (Alzheimer's Disease Neuroimaging Initiative) website. At the top, there is a navigation bar with links: ABOUT, STUDY DESIGN, DATA & SAMPLES, METHODS & TOOLS, SUPPORT, and NEWS & PUBLICATIONS. Below this is a banner with the text "Sharing Alzheimer's Research Data with the World" and a globe icon. The main content area features a large green box with the text "Search Terms for Data Dictionary" in green, which is highlighted by a callout box. To the left of this box is a list of links: "About the ADNI Study", "Overview of ADNI Data", "Data Use Agreement", "Request ADNI Specimens from RARC", and "APPLY FOR DATA ACCESS". To the right of the main box, there are two sections: "New of the ADNI Standardized Data Sets" and "New & Updated Diffusion Tensor Imaging and Tensor-Based Morphometry Data Available". The bottom of the page has a green footer with the same navigation links as the top bar.

ADNI

ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE

ABOUT STUDY DESIGN DATA & SAMPLES METHODS & TOOLS SUPPORT NEWS & PUBLICATIONS

Sharing Alzheimer's Research Data with the World

The Alzheimer's Disease Neuroimaging Initiative (ADNI) unites researchers with study data as they work to define the progression

**Search Terms for Data Dictionary**

- About the ADNI Study
- Overview of ADNI Data
- Data Use Agreement
- Request ADNI Specimens from RARC
- APPLY FOR DATA ACCESS

New of the ADNI Standardized Data Sets

- Search Terms for Data Dictionary**
- Update Account Information or Add Co-Investigators
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New & Updated Diffusion Tensor Imaging and Tensor-Based Morphometry Data Available

Tensor-based Morphometry & DTI ROI Summary Measures data generated by the Thompson Lab (LONI)...

Serum Autoantibody Biomarker Data Available

New serum autoantibody biomarker data for 100 subjects (50 MCI + 50 Control) lots...

MORE NEWS >

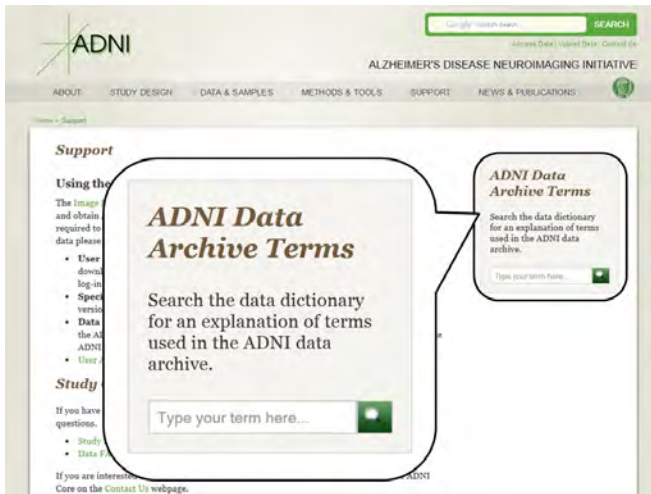
ADNI

ABOUT STUDY DESIGN DATA & SAMPLES METHODS & TOOLS SUPPORT NEWS & PUBS

Learning & Career Background & Relationships Access Data Study Documents User Account FAQs Publications

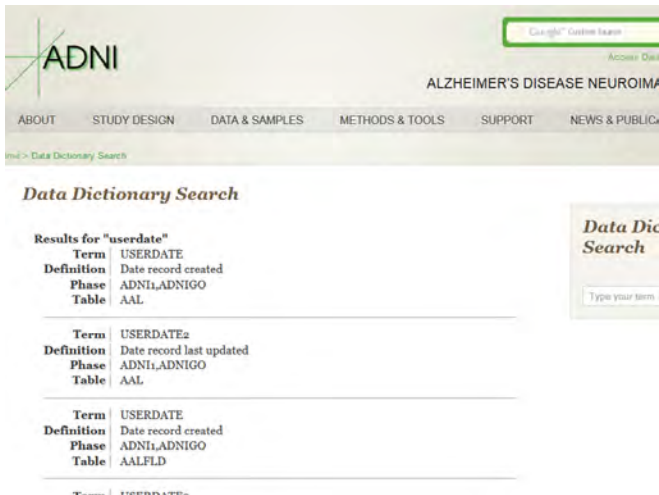
# LONI : Search Data

You can enter a term you want to search.



# LONI website: Data Dictionary Search

Search results for the 'USERDATE'.



The screenshot shows the ADNI website's Data Dictionary Search interface. At the top, there is a navigation bar with links: ABOUT, STUDY DESIGN, DATA & SAMPLES, METHODS & TOOLS, SUPPORT, and NEWS & PUBLIC. Below the navigation bar, the search results for the term "userdate" are displayed. The results are organized into three distinct sections, each containing a table with the following columns: Term, Definition, Phase, and Table.

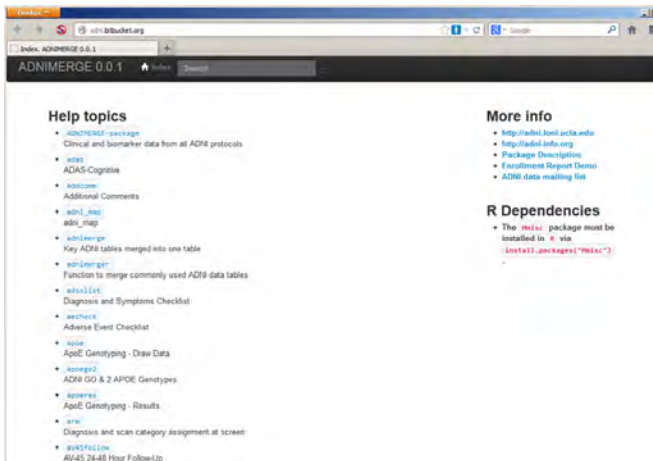
**Results for "userdate"**

Term	Definition	Phase	Table
USERDATE	Date record created	ADNI1,ADNIGO	AAL
USERDATE2	Date record last updated	ADNI1,ADNIGO	AAL
USERDATE	Date record created	ADNI1,ADNIGO	AALFLD

At the bottom of the page, there is a footer with the text "ADNI Biostatistics Core Team" and "ADNI Data Training Part 1".


# ADNIMERGE package

For ADNIMERGE package users: static html document is available.  
adni.bitbucket.org



# ADNI MERGE document

We can view data description and variable list.

ADNIMERGE 0.0.1  Index

## ADAS-Cognitive






### Description

Raw Alzheimer's Disease Assessment Scale-Cognitive (ADAS-Cog) data from the electronic case report form (eCRF). More information is available at <http://adni.loni.ucla.edu/data-samples/data-faq/>

### Format

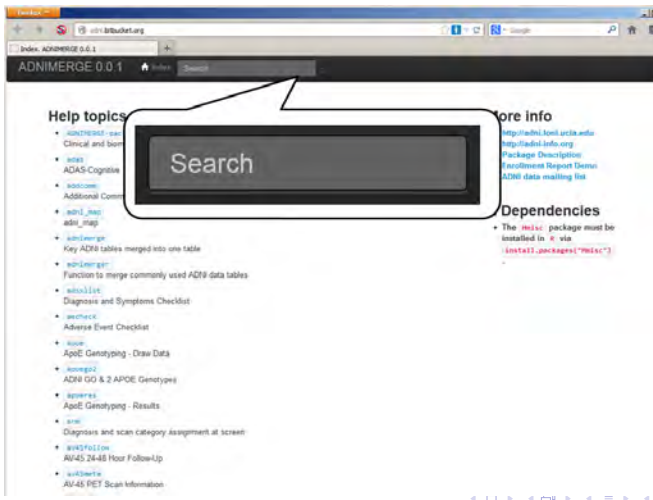
A dataframe containing 170 variables.

1	WORDLIST	N Word Recall and Recognition Tasks List Number
2	Q1UNABLE	N 1. Word Recall
3	Q1TR1	T Trial 1
4	Q1TR2	T Trial 2
5	Q1TR3	T Trial 3
6	Q1SCORE	N Score Component
7	TIMEEND	T Time Ended:
8	Q2UNABLE	N 2. Commands
9	Q2TASK	T \$<\$!-2. Commands--\$>\$
10	Q2SCORE	N Score Component
11	Q3UNABLE	N 3. Constructional Praxis
12	Q3TASK1	N Circle
13	Q3TASK2	Two overlapping rectangles

 >    

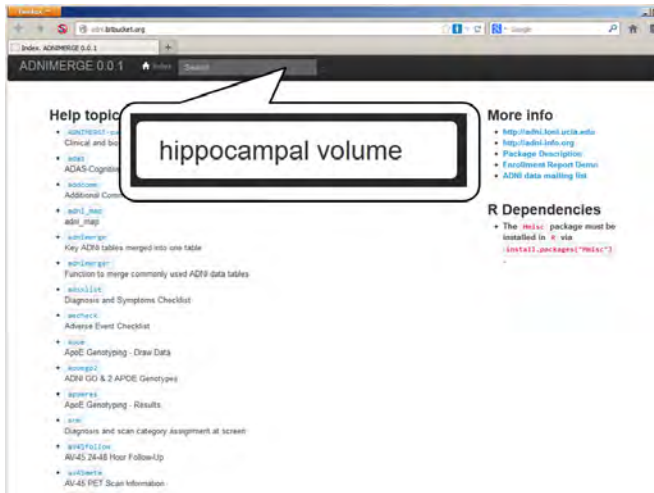
# ADNI MERGE document

You can use the search box.



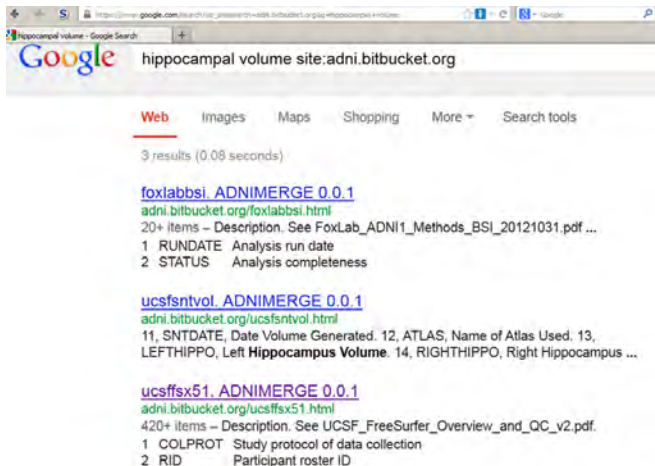
# ADNI MERGE document

For example, we can enter **hippocampal volume**.



# ADNI MERGE document

This will be the search result.



# Visualization Tool

**Visualization Tool** helps you to visualize data easily.

Please note:

- Not all assessments (variables) are available.
- Database is updated in real-time.
- Numbers in the slide will be different from current one.

# Visualization Tool

After you login

The screenshot shows the ADNI (Alzheimer's Disease Neuroimaging Initiative) website. The header includes the ADNI logo, a search bar, and navigation links: ABOUT, STUDY DESIGN, DATA & SAMPLES, METHODS & TOOLS, SUPPORT, NEWS & PUBLICATIONS. The main content area is titled 'Access Data' and contains a paragraph about data access for qualified scientists. Below this, there are two callout boxes highlighting login and account maintenance sections. The first callout box points to a login form with fields for 'EMAIL' (containing 'your e-mail') and 'PASSWORD' (containing dots), and a 'Submit' button. The second callout box points to a 'Maintaining Your ADNI Data Use Account' section, which includes a smaller version of the login form and text about updating the account annually.

**ADNI**  
ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE

ABOUT STUDY DESIGN DATA & SAMPLES METHODS & TOOLS SUPPORT NEWS & PUBLICATIONS

**Access Data**

Through this website, qualified scientists may obtain access to imaging, clinical, genomic, and biomarker data for the purpose of scientific investigation, teaching or planning clinical research studies. ADNI Data is archived in a secured and encrypted system provided by the LONI Image Data Archive (IDA). The IDA also hosts related data from the Australian Imaging Biomarkers and Lifestyle Study of Aging (AIBL) study, which you may also apply for access to below. Please go to <http://www.aibl.csiro.au> for more information about the AIBL study and the documents outlined in the documents listed below. Note: documents

**EMAIL** your e-mail

**PASSWORD** .....

Submit

**data Archive Login**

already have an ADNI Data account, you can login to the ADNI Data Archive to manage and download data.

**EMAIL** your email

**PASSWORD** .....

Submit

**Maintaining Your ADNI Data Use Account**

Part of the ADNI Data Use Agreement requires that you update your proposed analysis on an annual basis in order to keep your account activated. You will be sent a reminder before your account is deactivated by the DPC. You may also add or remove

# Visualization Tool

Click EXPLORE tab

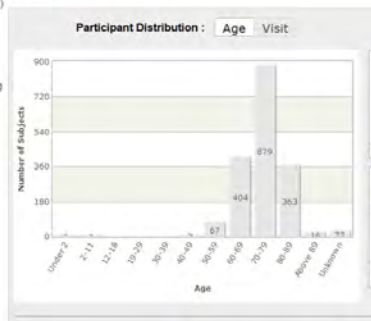


## Alzheimer's Disease Neuroimaging Initiative

The Alzheimer's Disease Neuroimaging Initiative (ADNI) seeks to develop biomarkers of the disease and advance the understanding of AD pathophysiology, improve diagnostic methods for early detection of AD and improve clinical trial design. Additional goals are examining the rate of progress for both mild cognitive impairment and Alzheimer's disease, as well as building a large repository of clinical and imaging data.

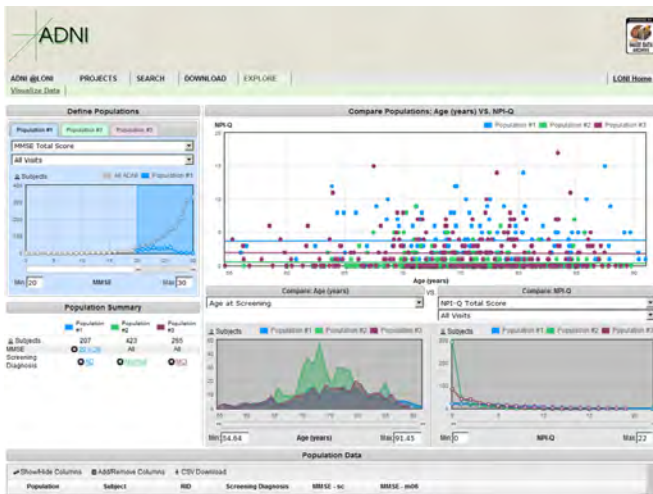
### RELATED LINKS

- [NEWS AND ANNOUNCEMENTS](#)
- [ADNI 1/GOV2 DOWNLOAD INSTRUCTIONS](#)
- [MRI RECALL NOTICES](#)



# Visualization Tool

## Visualization Page



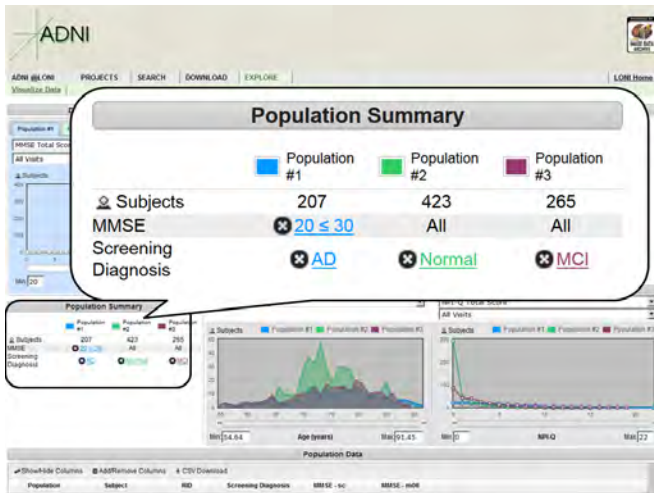
# Visualization Tool: Define Populations

First, you need to define populations.



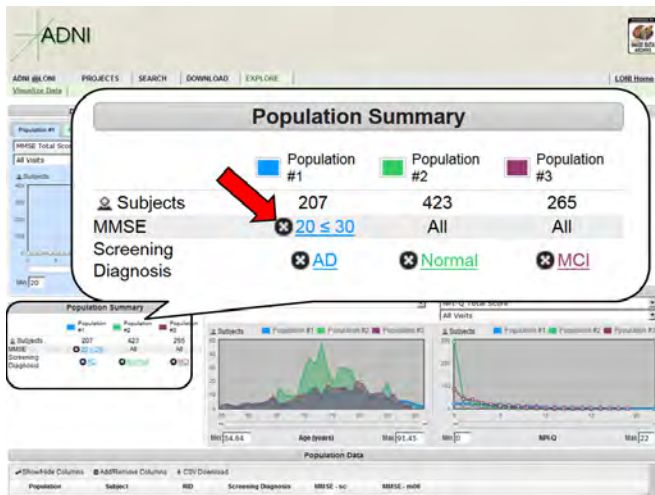
## Visualization Tool: Define Populations

Currently, Population#1 are MMSE of  $20 \leq 30$  and AD.



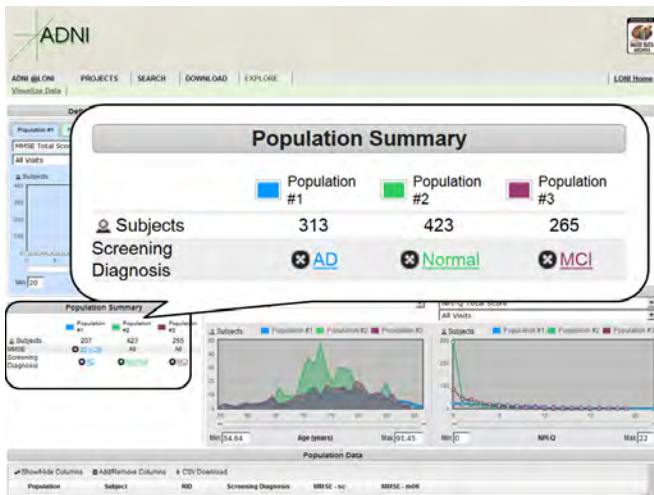
# Visualization Tool: Define Populations

We can remove MMSE restriction by clicking here



# Visualization Tool: Define Populations

Now Population #1 is all AD.



# Visualization Tool: Define Populations

We can add more restrictions from the pull-down menu to define each population.

The screenshot displays the ADNI Visualization Tool interface. The main window is titled "Define Populations" and features three tabs for "Population #1", "Population #2", and "Population #3". A callout box points to a list of variables available for selection, categorized as follows:

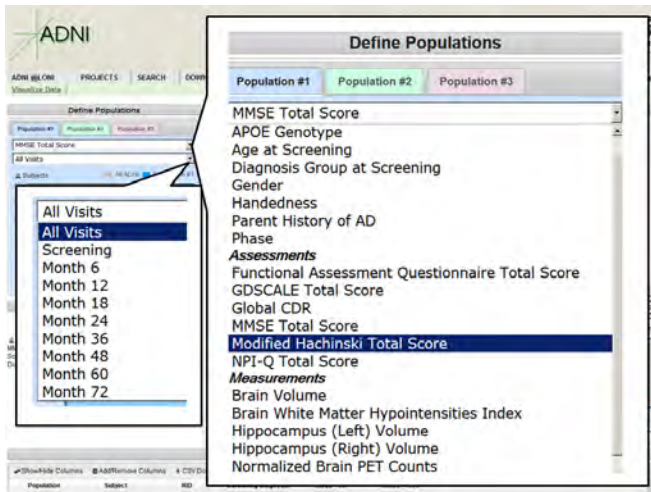
- MMSE Total Score**
- APOE Genotype**
- Age at Screening**
- Diagnosis Group at Screening**
- Gender**
- Handedness**
- Parent History of AD**
- Phase**
- Assessments**
  - Functional Assessment Questionnaire Total Score
  - GDSCALE Total Score
  - Global CDR
  - MMSE Total Score
  - Modified Hachinski Total Score** (highlighted)
  - NPI-Q Total Score
- Measurements**
  - Brain Volume
  - Brain White Matter Hypointensities Index
  - Hippocampus (Left) Volume
  - Hippocampus (Right) Volume
  - Normalized Brain PET Counts

The sidebar on the left includes the ADNI logo, navigation links (ADNI @ LONI, PROJECTS, SEARCH, DOWNLOAD), and a "Define Populations" section with a "Population Summary" table.

	Population #1	Population #2	Population #3
Subjects	207	423	255
MMSE	100	148	148
Screening	100	148	148
Diagnosed	100	148	148

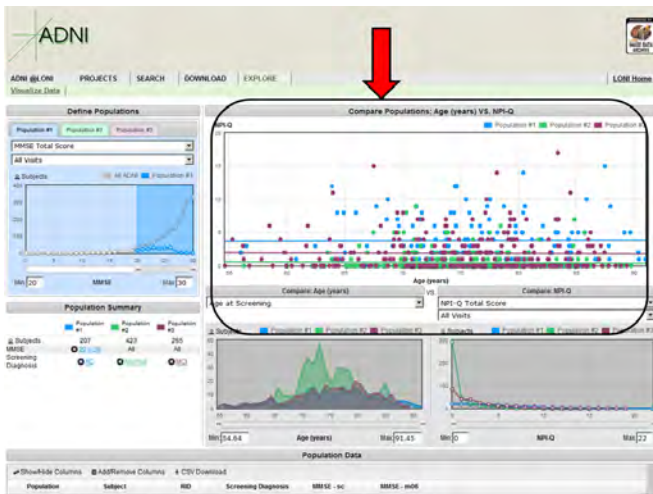
# Visualization Tool: Define Populations

For Assessment variable, we can restrict by visit time also.



# Visualization Tool: Compare Populations

Second, you need to select variables.



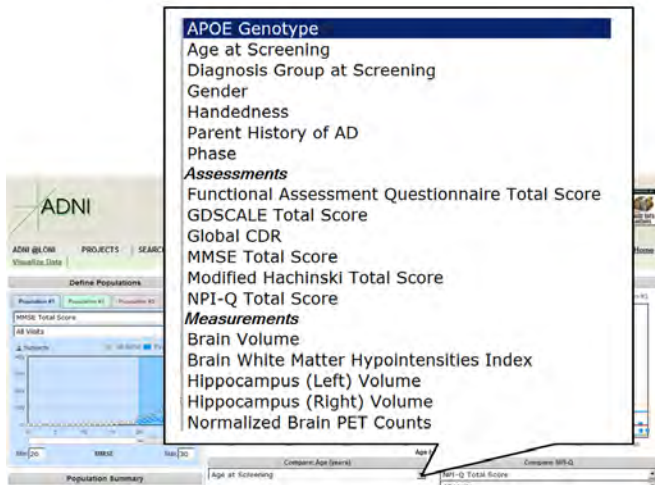
# Visualization Tool: Compare Populations

Currently, Age at Screening and NPI are set.



# Visualization Tool: Compare Populations

We can choose different variables from pull-down menu.



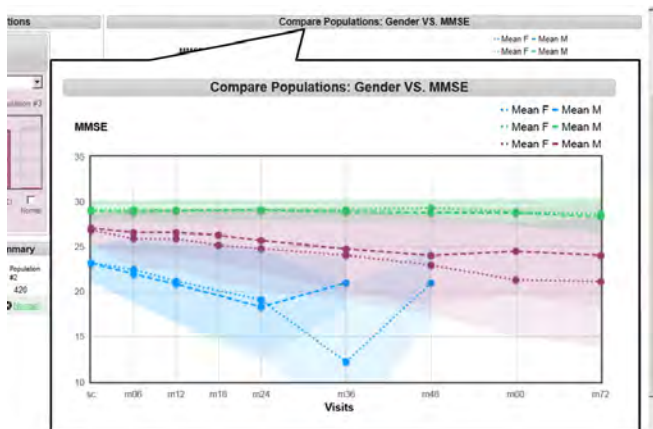
# Visualization Tool: Compare Populations

In this example, we chose Gender and MMSE.



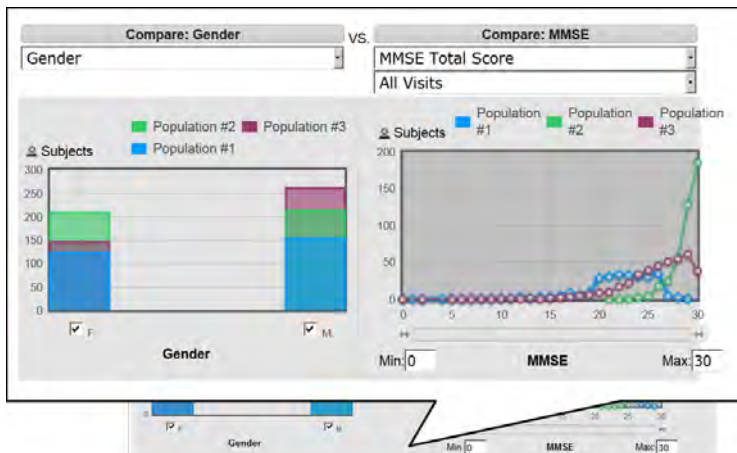
## Visualization Tool: Graphs

Mean of MMSE: highest is normal(green), lowest is AD(blue)  
MMSE score declined by time in MCI(red) and AD(blue)



# Visualization Tool: Graphs

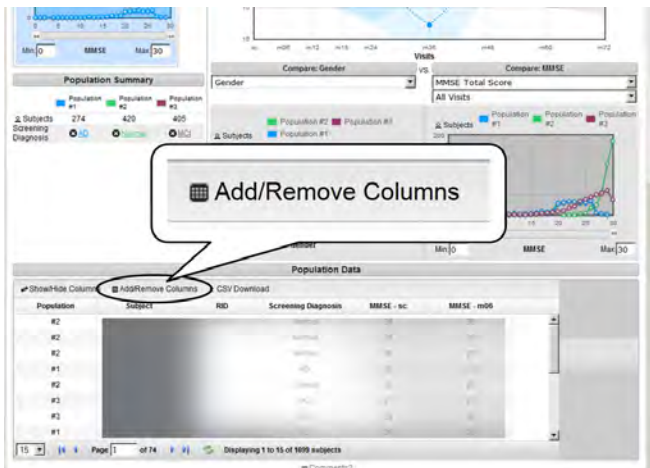
Bottom graphs show frequencies by each variable  
 We have more Male subjects in population#3 and #1



## Visualization Tool: Download Data

We can also download data from here.

You can Add/Remove variables by clicking here.



# Visualization Tool: Download Data

These are the available variables to add.

**Add/Remove Columns**

**Main**

- ☐ APOE Genotype
- ☐ Age at Screening
- ☒ Diagnosis Group at Screening
- ☐ Gender
- ☐ Handedness
- ☐ Parent History of AD
- ☐ Phase

**Assessments**

	Screening	Baseline	Month 6	Month 12	Month 18	Month 24
<input type="checkbox"/> Functional Assessment Questionnaire Total Score	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> GDSCAL Total Score	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Global CDR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> MMSE Total Score	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Modified Hachinski Total Score	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> NPI-Q Total Score	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Measurements**

	Screening	Baseline	Month 6
<input type="checkbox"/> Brain Volume	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Brain White Matter Hypointensities Index	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Hippocampus (Left) Volume	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Hippocampus (Right) Volume	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Normalized Brain PET Counts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Temporal Lobe Mean Jacobian	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

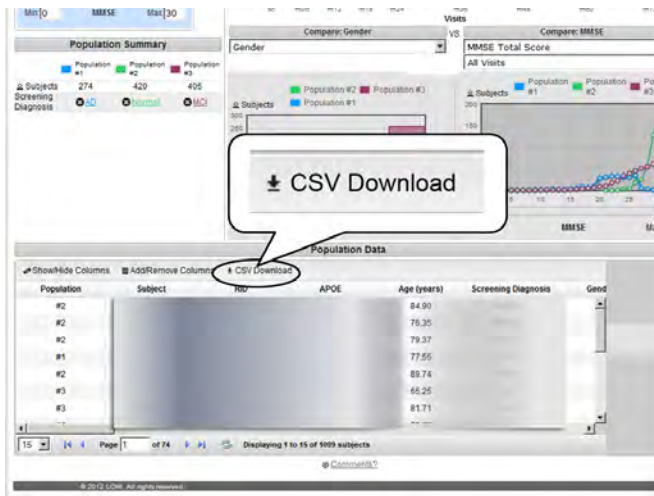
# Visualization Tool: Download Data

After you add desired variables, click **Change Columns**

The screenshot displays the ADNI Visualization Tool interface. At the top, there are two line graphs showing data trends. Below the graphs, the 'Population Summary' section shows three populations: Population #1 (274 subjects), Population #2 (420 subjects), and Population #3 (405 subjects). The 'Compare: Gender' and 'Compare: MMSE' sections show dropdown menus for selecting variables. The 'Add/Remove Columns' dialog box is open, showing a list of variables under 'Main' and 'Assessments' categories. A large callout box with the text 'Change Columns' points to the 'Change Columns' button at the bottom right of the dialog box. The dialog box also includes a 'Page' indicator showing 'Page 1 of 74' and 'Displaying 1 to 15 of 1099 subjects'.

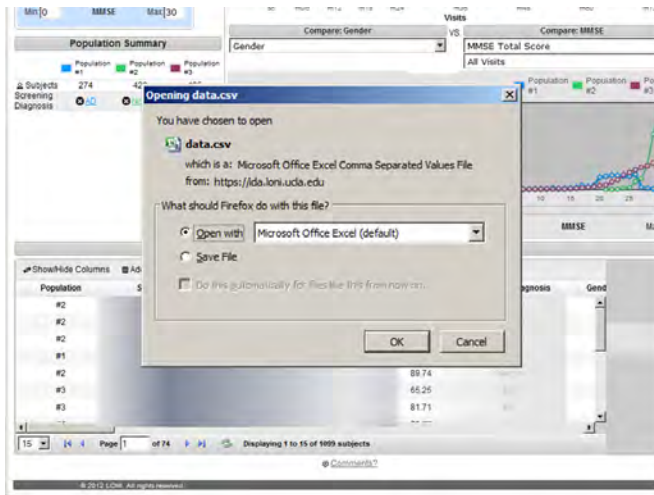
## Visualization Tool: Download Data

After adding desired variables, we can download csv data file.



# Visualization Tool: Download Data

This data will have wide format



# Having Question?

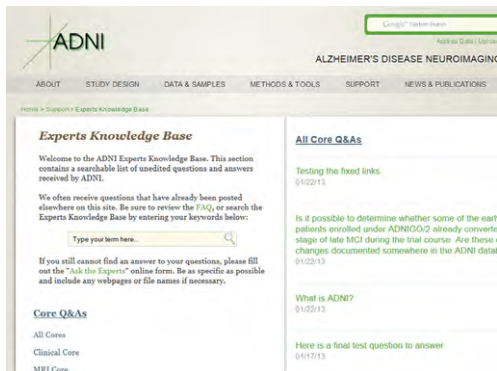
If you have questions, please check FAQ section first.



Still no answers?

# Having Question?

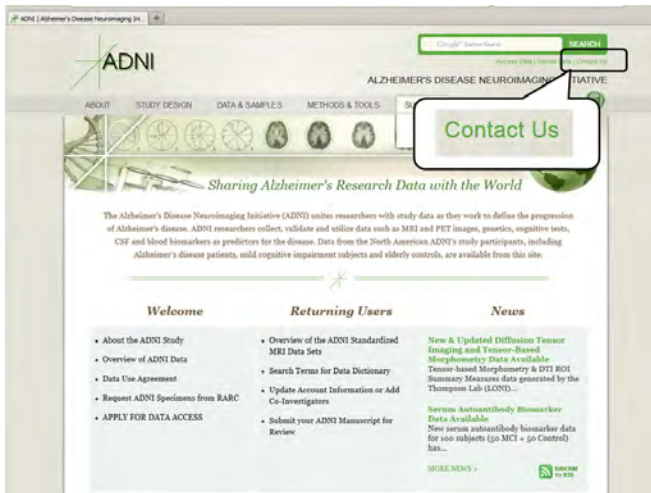
Search your question using **Experts Knowledge Base**.  
(will be available soon)



Still no answers?

# Having Question?

You can contact us from here.



# Having Question?

Or **Ask the Experts** page (will be available soon)

ABOUT STUDY DESIGN DATA & SAMPLES METHODS & TOOLS SUPPORT NEWS & PUBLICATIONS

Home > Support > Experts Knowledge Base > Ask the Experts

## Ask the Experts


Use this online form to submit an ADNI question to our experts. All fields are required. Please allow 3-5 business days for an email reply. Responses are made through the Experts Knowledge base and may be published to this site.

Name  Email

My question is for

Question

Enter the text you see in the captcha box on the right



<b>Neuropathology Core</b> <ul style="list-style-type: none"> <li>• Neuropathological examination</li> <li>• Brain tissue archive</li> </ul>	<b>Data Sharing and Publications Committee (DPC)</b> <ul style="list-style-type: none"> <li>• Your ADNI data application</li> <li>• Manuscript submissions</li> <li>• Data use policies</li> </ul>	<b>Genetics Core</b> <ul style="list-style-type: none"> <li>• Genetic data and samples</li> <li>• MRI and PET endophenotypes</li> </ul>	<b>Biomarker Core</b> <ul style="list-style-type: none"> <li>• Biological fluids bank</li> <li>• Biomarkers such as APOE genotyping, Plasma, CSF Aβ and tau, other promising biomarkers</li> </ul>
<b>MRI Core</b> <ul style="list-style-type: none"> <li>• MRI protocols</li> <li>• MRI data</li> </ul>	<b>Clinical Core</b> <ul style="list-style-type: none"> <li>• Clinical data, CRFs</li> <li>• Clinical Protocols</li> </ul>	<b>Informatics Core</b> <ul style="list-style-type: none"> <li>• Data archive access &amp; usage</li> <li>• Data archive technical issues</li> </ul>	<b>Coordinating Center</b> <ul style="list-style-type: none"> <li>• Data collection</li> </ul>
<b>PET Core</b>	<b>Biostatistics Core</b>	<b>Webmaster</b>	<b>Principle Investigator</b>

# Having Question?

Or you may join ADNI Data User Google Group.

<https://groups.google.com/d/forum/adni-data>

The screenshot shows the Google Groups interface for the 'Alzheimer's Disease Neuroimaging Initiative (ADNI) Data' group. The page includes a search bar at the top, a welcome message, and a sidebar with navigation links like 'My groups', 'Home', 'Starred', 'Announcements', 'Recently viewed', and 'Favorites'. The main content area features the group title, a description of the group's purpose, and a section titled 'ADNIMERGE data package for R' which provides instructions on how to install the package using R. The instructions include a code snippet for installing the package from a local file and a link to the package's documentation page.

Google

Welcome to the new Google Groups! Learn about the new features you'll find.

Groups

NEW TOPIC Mark all as read Actions Filters

My groups 9 of 9 topics

Home

Starred

Announcements

Recently viewed

Favorites

Click on a group's star icon to add it to your favorites

Alzheimer's Disease Neuroimaging Initiative (ADNI) Data

Tags Manage M

There is one pending member to review

**ADNI Data User Group**

This group is devoted to questions from users of the ADNI data. Please check the documentation available from [Laboratory of Neuropsychiatry, UCLA](http://adni.loni.ucla.edu/data-samples/data-faq/), in particular <http://adni.loni.ucla.edu/data-samples/data-faq/>, before posting your question. To subscribe to list, send an email to [adni-data+subscribe@googlegroups.com](mailto:adni-data+subscribe@googlegroups.com).

**ADNIMERGE data package for R**

For users of R, we have developed a data package "ADNIMERGE" which contains coded data, documentation, and analysis vignette documentation can be found at <http://adni.loni.ucla.edu> and more information about ADNI is available from <http://adni.loni.ucla.edu> depends on Frank Harrell's [Hmisc](#) package which can be installed from the R package repository (CRAN) by:

```
R prompt> install.packages("Hmisc")
```

To downloading the compressed ADNIMERGE\_0.0.1.tar.gz file, direct your browser to

<http://adni.loni.ucla.edu/> > Login > Download > Study Info > Merged ADNI 1/GO/2 Package for R

The package can be installed to your R system by entering the following at an R prompt:

```
R prompt> install.packages("ADNIMERGE_0.0.1.tar.gz", repos = NULL, type = "source")
```

# Q & A

Any questions?

# Thank You

Thank you.