

# 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

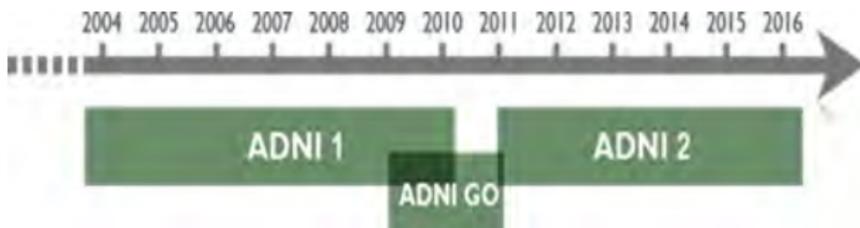
## The Alzheimer's Disease Neuroimaging Initiative (ADNI)

- 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 website homepage in a browser window. The address bar displays <http://www.adni-info.org>. The page features a large orange and yellow header with the ADNI logo and the text "ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE". A navigation menu on the left lists various sections, with "Volunteer for ADNI" highlighted in a dark red box. The main content area includes a section titled "Alzheimer's Disease Neuroimaging Initiative" with a sub-section "Welcome from the ADNI Principal Investigator". This section contains a video player showing a man speaking, with a play button and a "vimeo" logo. The text below the video describes the ADNI study, mentioning its third phase (ADNI GO and ADNI 2) and the number of participants in different groups.

**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
- DOD ADNI Home**

## Alzheimer's Disease Neuroimaging Initiative

### Welcome from the ADNI Principal Investigator

Alzheimer's disease (AD) affects almost 50% of those over the age of 85 and is the sixth leading cause of death in the US. Since 2005, the longitudinal Alzheimer's Disease Neuroimaging Initiative (ADNI) has been validating the use of biomarkers including blood tests, tests of cerebrospinal fluid, and MRI/PET imaging for Alzheimer's disease (AD) clinical trials and diagnosis.

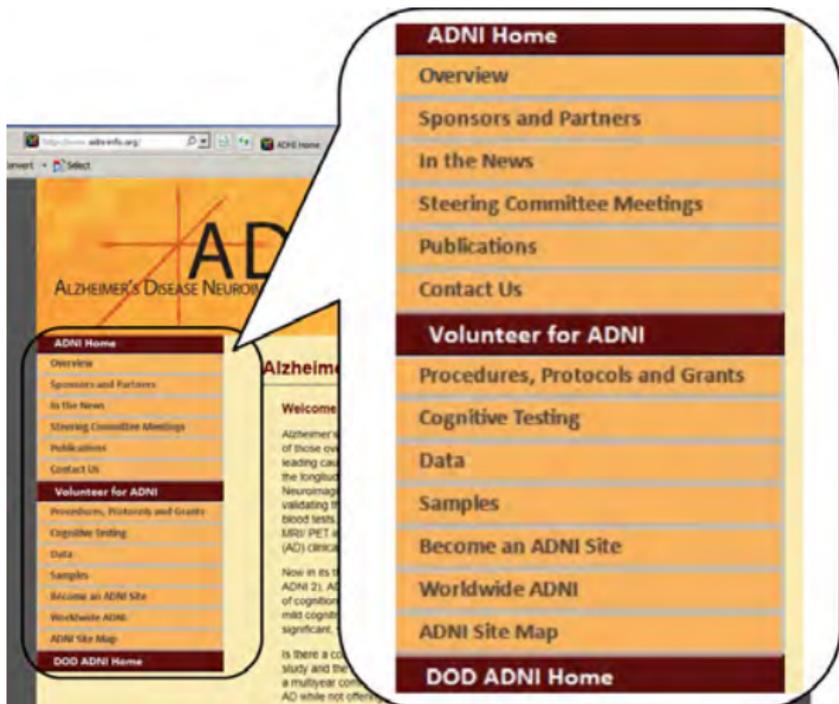
Now in its third phase (ADNI, ADNI GO and ADNI 2), ADNI 2 is studying the rate of change of cognition, function, brain structure, and biomarkers in 150 elderly controls, 450 subjects with mild cognitive impairment, 150 with mild to moderate AD and a new group of 100 people with significant, yet subtle, memory complaints, referred to as the significant memory concern cohort.

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



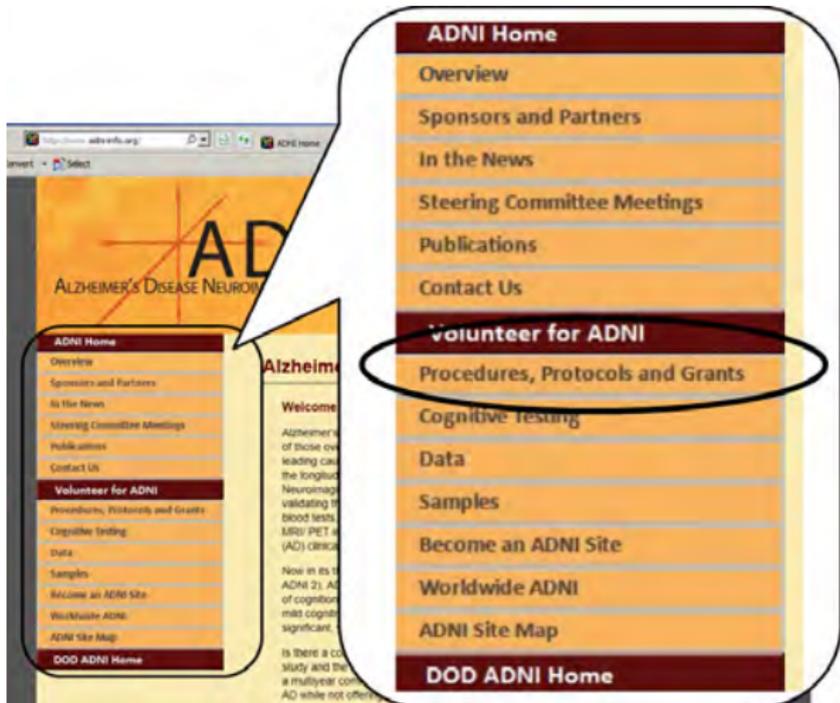
# ADNI-Info website

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 website interface. On the left is a vertical navigation menu with sections: 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 Procedures, Protocols and Grants" and is divided into "ADNI Grant Applications" and "ADNI Protocols". A callout box highlights a list of manuals: "ADNI 1 Procedures Manual", "ADNI GO Procedures Manual", and "ADNI 2 Procedures Manual". A smaller callout box below it lists: "ADNI 1 Procedures Manual", "ADNI GO Procedures Manual", and "ADNI 2 Procedures Manual".

**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 Procedures, Protocols and Grants**

**ADNI Grant Applications**

**Grant Applications**

- Download the ADNI 2 Grant Application.
- Download the Scientific Portion of the ADNI GO Grant Application.
- Download the ADNI Grant Application.
- Download the ADNI Neuropathology Core Grant Application (posted 5/16/2007)

**ADNI Protocols**

**Protocols**

- Download the ADNI RFA
- Download the ADNI 2 Protocol
- Download the ADNI 1 Protocol
- Download the ADNI GO Protocol
- Download the ADNI 2 Protocol

**ADNI 1 Procedures Manual**

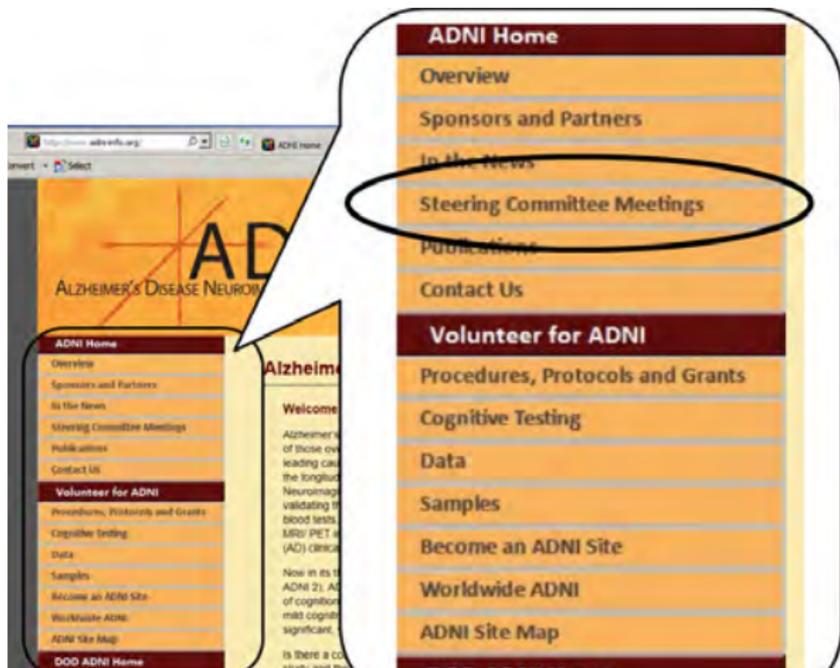
**ADNI GO Procedures Manual**

**ADNI 2 Procedures Manual**

ADNI 1 Procedures Manual  
ADNI GO Procedures Manual  
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 website with a navigation menu on the left and a main content area on the right. The navigation menu includes links for 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 features a section titled 'ADNI Steering Committee Meetings' with a paragraph explaining that meetings take place annually in the spring and that presentation slides from past meetings are available for download. Below this, there is a list of meetings with dates and locations, each with an 'Expand / collapse' link.

**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)

**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's 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 website home page. At the top left is the ADNI logo. To the right is a search bar with the text "Google Custom Search" and a "SEARCH" button. Below the search bar is the text "ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE". A navigation menu includes links for "ABOUT", "STUDY DESIGN", "DATA & SAMPLES", "METHODS & TOOLS", "SUPPORT", and "NEWS & PUBLICATIONS". The main content area features a "Sharing" section with a video player and a list of links. A large speech bubble highlights the video player and the list of links. The video player shows a play button and the text "VIDEO: Introduction to ADNI". The list of links includes "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 large-scale effort to understand the progression of Alzheimer's disease. ADNI researchers are studying the relationship between brain structure, function, and cognition, and how these factors relate to CSF and blood biomarkers as predictors of Alzheimer's disease patients, mild cognitive impairment, and dementia.

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

VIDEO: Introduction to ADNI

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

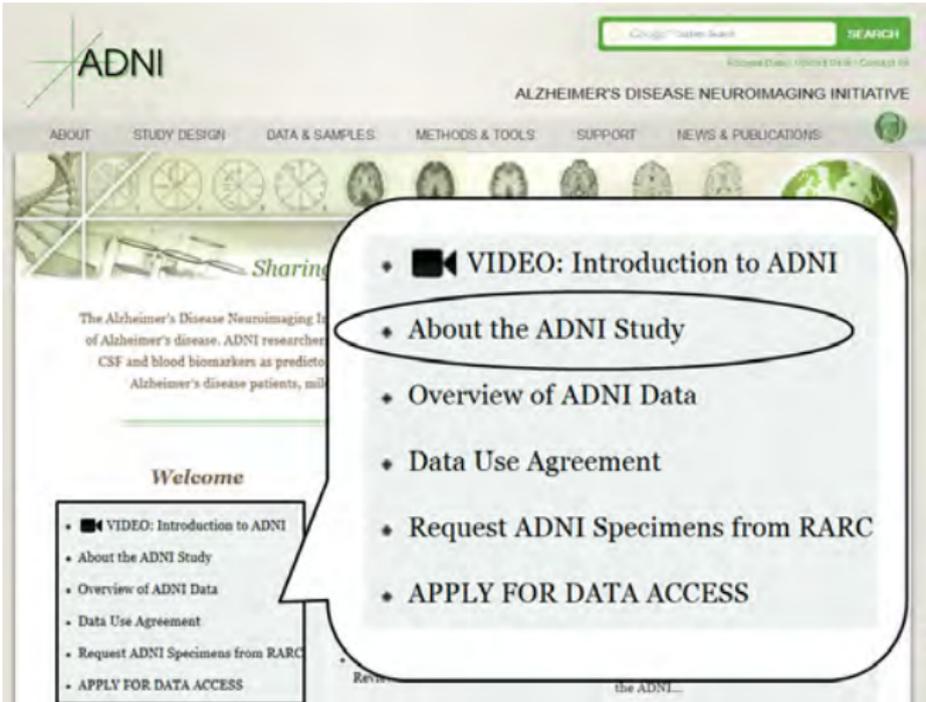
# LONI website: Home Page

A brief introduction to ADNI data.

The screenshot shows the ADNI website home page. At the top, there is a navigation bar with links for 'About ADNI', 'Navigate ADNI website', 'LONI: Download data', and 'Visualization Tool'. Below this is a large video player titled 'Introduction to ADNI Data' with the ADNI logo and the text 'Alzheimer's Disease Neuroimaging Initiative' and 'Laboratory of Neuro Imaging'. To the right of the video player is a search bar and a 'SEARCH' button. Below the video player 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 callout box on the right side of the page contains a list of links: 'Introduction to ADNI', 'Study', 'Data', 'Data Use Agreement', 'Request ADNI Specimens from RARC', and 'APPLY FOR DATA ACCESS'. The video player shows a progress bar at 0:03 / 1:09.

# LONI website: Home Page

You can learn more about ADNI.



The screenshot shows the ADNI website home page. At the top left is the ADNI logo. To the right is a search bar with the text "Google Custom Search" and a "SEARCH" button. Below the search bar is the text "ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE". A navigation menu includes links for "ABOUT", "STUDY DESIGN", "DATA & SAMPLES", "METHODS & TOOLS", "SUPPORT", and "NEWS & PUBLICATIONS". The main content area features a "Sharing" section with a video player and 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 callout box highlights these links, with "About the ADNI Study" and "APPLY FOR DATA ACCESS" circled.

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

## LONI website: Home Page

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

The screenshot shows the ADNI website home page. At the top left is the ADNI logo. To the right is a search bar and the text 'ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE'. Below this is a navigation menu with tabs: ABOUT, STUDY DESIGN, DATA & SAMPLES, METHODS & TOOLS, SUPPORT, and NEWS & PUBLICATIONS. The 'STUDY DESIGN' tab is active, and a dropdown menu is open, showing 'Background & Rationale', 'Study Documents', and 'Study Organization'. A callout box with a green arrow points to the 'Study Documents' link. Below the navigation menu is a banner with brain scan images and a globe, with the text 'with the World'. Below the banner are three columns: 'Welcome', 'Returning Users', and 'News'. The 'Welcome' column contains links like 'About the ADNI Study' and 'APPLY FOR DATA ACCESS'. The 'Returning Users' column contains links like 'Overview of the ADNI Standardized MRI Data Sets' and 'Submit your ADNI Manuscript for Review'. The 'News' column contains a 'New & Updated Diffusion Tensor Imaging and Tensor-Based Morphometry Data Available' announcement. At the bottom right, there is a 'MORE NEWS' link and an 'ADNI TO RSS' icon.

# 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

Home » Methods & Tools » Study Documents

### Study Documents

**Study Information:**

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

**MRI Protocols:**

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

**Biospecimen Protocols:**

Biosamples: Neuropathological Tissue:

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

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

# LONI website: Study Documents

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

Study Schedule	ADNI												ADNI GO: New Part															
	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	EMV	EMC	EMV
Brain Study	X	X	X																									
Brain Volume	X	X	X																									
Demographics, Family History, education and Equipment Choice	X	X	X																				X					
Medical History, Physical Exam, Neurological Exam, (national)	X	X	X																				X					
PSY 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
Height																								X				
Screening Labs	X	X	X																					X				
ADG	X	X	X																									
Spine Sample Collection for sTGF-β1 Genotyping and GWAS																												X
Cell immortalization Sample Collection																												X
American National Adult Reading Test				X	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				
Everyday Cognition (Ecog)																												X
Briefline Cognitive Assessment (MCCA)																												X
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
Categorical 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
Categorical Fluency (alternate)																												X
Trail A & 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
Balton 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
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																					X	X	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																												X
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
ADAS-Cog				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
ADAS-Cog 11 with Delirium Subst																												X

# LONI website: Home Page

Please check News regularly or subscribe to RSS.

The screenshot shows the ADNI website home page. At the top left is the ADNI logo. A search bar is located at the top right. Below the logo, the page is titled "ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE". A "News" section is highlighted with a large callout box. This callout contains the following text:

**News**

**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 >](#)

[SUBSCRIBE TO RSS](#)

A smaller callout box points to a "News" section on the right side of the page, which contains a summary of the same news items. Below this, there is a "Data with the World" section with a globe icon and text about study data availability. At the bottom right of the page, there are navigation icons for home, search, and refresh.

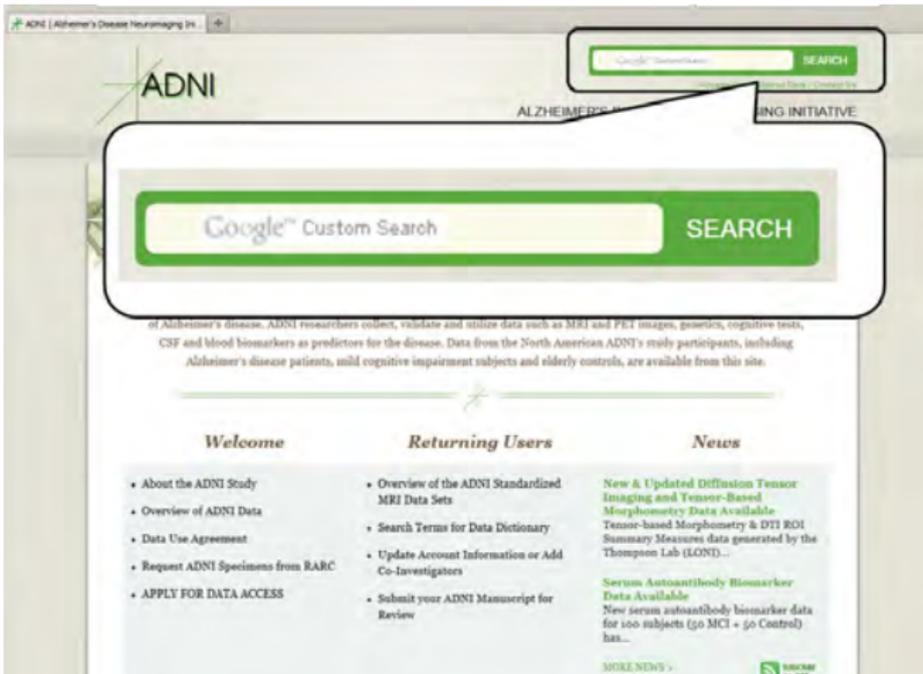
# LONI website: Home Page

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

The screenshot shows the ADNI website home page. At the top, there is a search bar and navigation links for 'Home', 'About ADNI', 'Download Data', and 'Contact Us'. The main navigation bar includes 'ABOUT', 'STUDY DESIGN', 'DATA & SAMPLES', 'METHODS & TOOLS', 'SUPPORT', 'NEWS & PUBLICATIONS', and 'CONTACT US'. A callout box points to the 'SUPPORT' menu item, which contains a list of links: 'User Account FAQs', 'Data FAQs', and 'Study FAQs'. Another callout box points to the 'SUPPORT' menu item in the main navigation bar, which also contains the same list of links: 'User Account FAQs', 'Data FAQs', and 'Study FAQs'. The page content includes a 'The World' section with a globe, a 'News' section with a 'Related Diffusion Tensor and Tensor-Based Property Data Available' article, and a 'MORE NEWS' section with a 'Serum Antinutritive Biomarker Data Available' article.

## LONI website: Home Page

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



The screenshot shows the ADNI website home page. At the top left, the ADNI logo is visible. In the top right corner, there is a small search box with the text "Google Custom Search" and a "SEARCH" button. A larger, more prominent search box is located in the center of the page, also featuring "Google Custom Search" and a "SEARCH" button. This larger search box is highlighted with a white background and a green border. Below the search boxes, there is a paragraph of text describing the ADNI study. Further down, the page is organized into three columns: "Welcome", "Returning Users", and "News". Each column contains a list of links and information. The "Welcome" column includes links for "About the ADNI Study", "Overview of ADNI Data", "Data Use Agreement", "Request ADNI Specimens from RARC", and "APPLY FOR DATA ACCESS". The "Returning Users" column includes links for "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". The "News" column includes "New & Updated Diffusion Tensor Imaging and Tensor-Based Morphometry Data Available" and "Serum Autoantibody Biomarker Data Available".

# 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**      **SUBMIT YOUR QUESTION**

<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 A<math>\beta</math> 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>

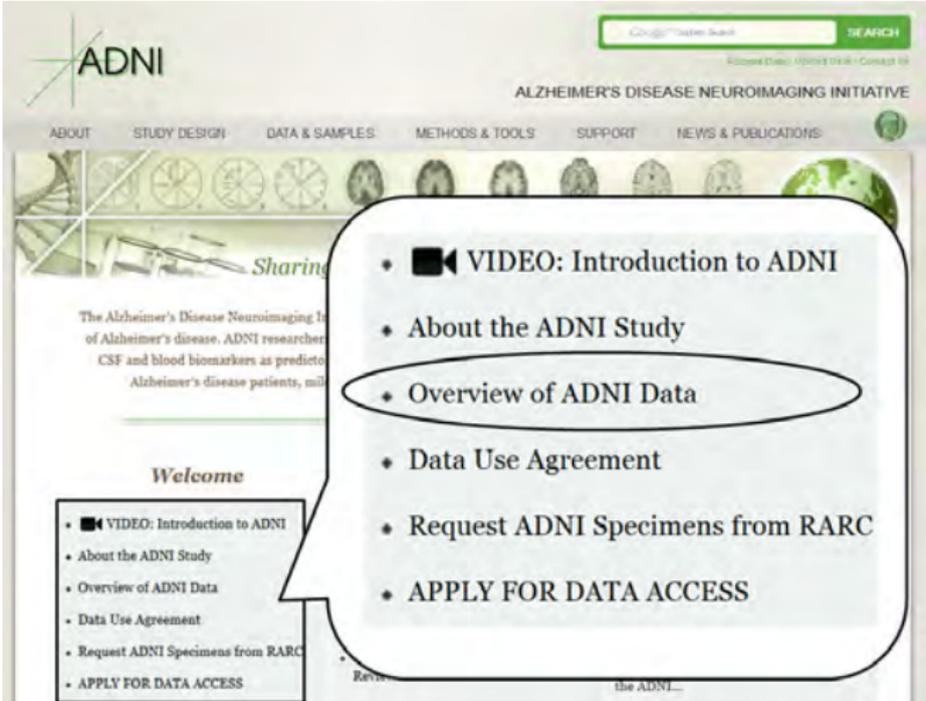
# LONI website: Ask the Experts

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' page. At the top left is the ADNI logo. To the right is a search bar with the text 'Google Custom Search' and a link for 'Access Data / Upload'. Below this is a navigation menu with items: ABOUT, STUDY DESIGN, DATA & SAMPLES, METHODS & TOOLS, SUPPORT, and NEWS & PUBLICATIONS. The main content area is titled 'Experts Knowledge Base' and includes a welcome message, a search box with the placeholder 'Type your term here...', and a note about asking questions. On the right side, there is a section for 'All Core Q&As' with a list of questions, including 'Testing the fixed links.' and 'Is it possible to determine whether some of the ear patients enrolled under ADNI/GO/2 already converte stage of late MCI during the trial course. Are these changes documented somewhere in the ADNI data?'. The page also features a 'Core Q&As' section with sub-links for 'All Cores' and 'Clinical Core'.

## LONI: Home Page

You can learn more about data from here.



The screenshot shows the ADNI website home page. At the top left is the ADNI logo. To the right is a search bar with the text "Google Custom Search" and a "SEARCH" button. Below the search bar is the text "ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE". A navigation menu includes links for "ABOUT", "STUDY DESIGN", "DATA & SAMPLES", "METHODS & TOOLS", "SUPPORT", and "NEWS & PUBLICATIONS". The main content area features a "Sharing" section with a video player and a list of links. A callout box highlights the "Overview of ADNI Data" link.

ADNI

ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE

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

Sharing

The Alzheimer's Disease Neuroimaging Initiative (ADNI) is a large-scale, multi-center study of Alzheimer's disease. ADNI researchers are studying the disease through a variety of methods, including brain scans, blood and CSF biomarkers as predictors of Alzheimer's disease patients, and clinical assessments.

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

Overview of ADNI Data

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

# Download Data

## How to download data from LONI

The screenshot shows the ADNI website homepage. At the top left is the ADNI logo. To the right is a search bar with the text "Go to: Search" and a "SEARCH" button. Below the search bar are links for "Accepted Data", "Updated Data", and "Contact Us". A navigation menu includes "ABOUT", "STUDY DESIGN", "DATA & SAMPLES", "METHODS & TOOLS", "SUPPORT", and "NEWS & PUBLICATIONS". The main content area features a banner with the text "Sharing Alzheimer's Research Data with the World" and a globe icon. Below the banner is a paragraph describing the ADNI initiative. At the bottom, there are three columns of links: "Welcome", "Returning Users", and "News".

**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's 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...

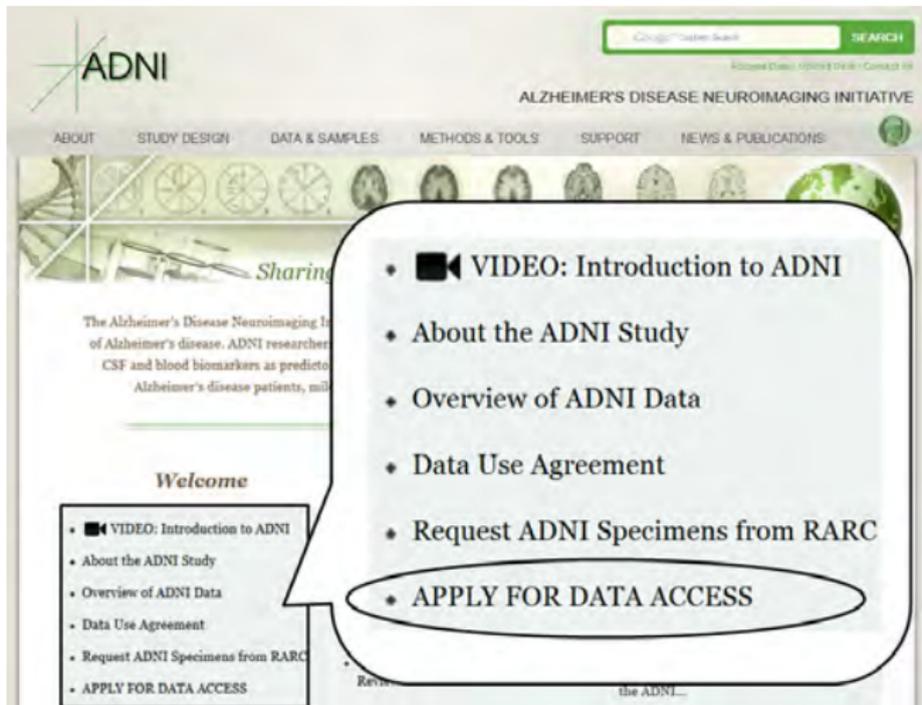
# LONI: Access Data

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

The screenshot shows the ADNI website interface. At the top left is the ADNI logo. A search bar is located at the top right. Below the logo is the text 'ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE'. A navigation menu includes 'ABOUT', 'STUDY DESIGN', 'DATA & SAMPLES', 'METHODS & TOOLS', 'SUPPORT', and 'NEWS & PUBLICATIONS'. The 'DATA & SAMPLES' menu is expanded, showing a list of options: '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 menu is a section titled 'Research Data with the World' with a globe icon. The main content area features three columns: 'Welcome', 'Returning Users', and 'News'. The 'Welcome' column lists links like 'About the ADNI Study', 'Overview of ADNI Data', 'Data Use Agreement', 'Request ADNI Specimens from RARC', and 'APPLY FOR DATA ACCESS'. The 'Returning Users' column lists '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'. The 'News' column contains two news items: 'New & Updated Diffusion Tensor Imaging and Tensor-Based Morphometry Data Available' and 'Serum Autoantibody Biomarker Data Available'. A 'MORE NEWS >' link is at the bottom of the news section.

## LONI: Access Data

Or click **APPLY FOR DATA ACCESS**.

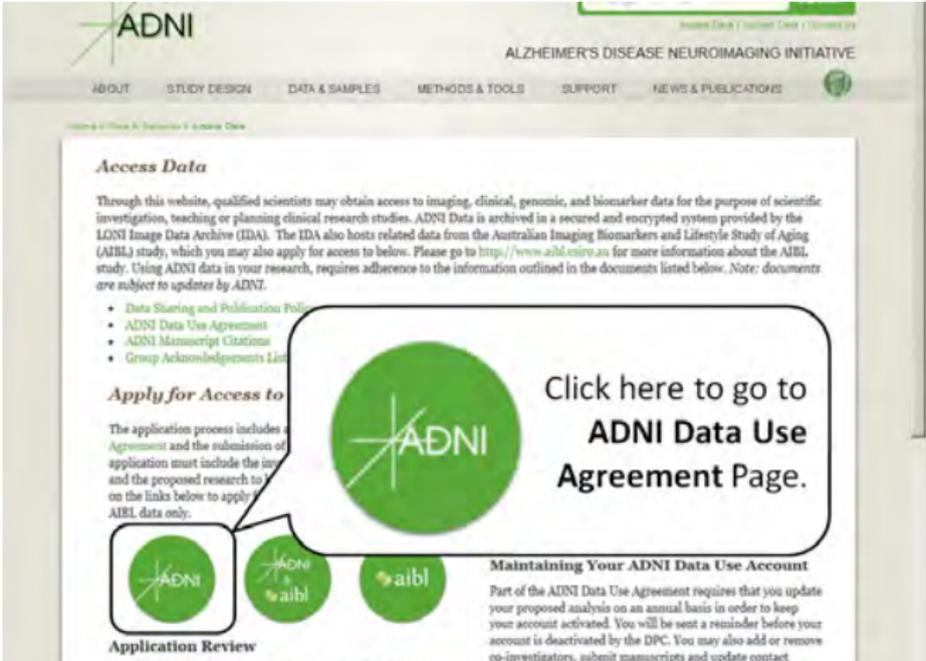


The screenshot shows the ADNI website interface. At the top left is the ADNI logo. To the right is a search bar with the text "Google Custom Search" and a "SEARCH" button. Below the search bar is the text "ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE". A navigation menu includes links for "ABOUT", "STUDY DESIGN", "DATA & SAMPLES", "METHODS & TOOLS", "SUPPORT", and "NEWS & PUBLICATIONS". The main content area features a "Sharing" section with a video player and a list of links. A callout box highlights the "APPLY FOR DATA ACCESS" link in the list.

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

## LONI: Access Data

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



The screenshot shows the ADNI website's 'Access Data' page. The page title is 'ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE'. The navigation menu includes 'ABOUT', 'STUDY DESIGN', 'DATA & SAMPLES', 'METHODS & TOOLS', 'SUPPORT', and 'NEWS & PUBLICATIONS'. The main content area is titled 'Access Data' and contains the following 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.csiro.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.

- Data Sharing and Publication Policy
- ADNI Data Use Agreement
- ADNI Manuscript Citations
- Group Acknowledgements List

**Apply for Access to**

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 access to ADNI data only.

**Application Review**

**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 co-investigators, submit manuscripts and update contact

Callouts on the page:

- A large green circle with the ADNI logo and the text: "Click here to go to ADNI Data Use Agreement Page."
- A smaller green circle with the ADNI logo and the text: "Application Review"
- A green circle with the ADNI logo and the text: "aibl"
- A green circle with the ADNI logo and the text: "aibl"

## 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

Home > Data & Samples > Access Data

### 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.

**EMAIL**

**PASSWORD**

**Submit**

### Data Archive Login

If you 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.

The screenshot shows the ADNI website interface. At the top, there is a navigation bar with links for 'ADNI@LONI', 'PROJECTS', 'SEARCH', 'DOWNLOAD', 'EXPLORE', and 'LONI Home'. Below this is the 'Alzheimer's Disease Neuroimaging Initiative' header and a brief description. A search bar is visible on the right. The main content area features a bar chart showing the number of subjects by age group. A speech bubble highlights the link 'ADNI 1/GO/2 DOWNLOAD INSTRUCTIONS' in the 'RELATED LINKS' section. Below the chart is a table with the following data:

Age Group	Number of Subjects
Under 2	1
2-11	1
12-16	0
18-26	0

# LONI: Download Data

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

The screenshot shows the ADNI website interface. At the top, there is a navigation bar with links for 'ADNI @ LONI', 'PROJECTS', 'SEARCH', 'DOWNLOAD', and 'EXPLORE'. The 'DOWNLOAD' link is circled in red, and a callout box with the word 'DOWNLOAD' in large letters points to it. Below the navigation bar, there is a section for 'Alzheimer's Disease Neuroimaging' with a description of the initiative. To the right, there are statistics for the 'Research Group' (Patients = 1,755) and 'Gender' (Female = 755, Male = 965, Unknown = 1). Below these statistics is a bar chart showing the 'Number of Subjects' by 'Age' group. At the bottom, there is a table with columns for 'Age Group' and 'Number of Subjects'.

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

# 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

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

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 (ADN1)
- Conversions Confirmed by Conversion Committee (ADN1)
- Diagnosis and Symptom Checklist (ADN1.G0.2)
- Diagnostic Summary - Baseline Changes (ADN1.G0.2)
- Diagnostic Summary (ADN1.G0.2)

ALL Neuropsychological

- ADAS-Sub-Scores and Total Scores (ADN1)
- Alzheimer's Disease Assessment Scale (ADAS) (ADN1)
- Alzheimer's Disease Assessment Scale (ADAS) (ADN6.G0.2)
- Clinical Dementia Rating Scale (CDR) (ADN1.G0.2)
- Everyday Cognition - Participant Self Report (ADN6.G0.2)
- Functional Activities Questionnaire (FAQ) (ADN1.G0.2)
- Genetic Depression Scale (GDS) (ADN1.G0.2)
- Barn Level Data (ADAS-Cog, MMART, MMSE, etc)
- Barnes Level Data Dictionary
- Mini-Mental State Examination (MMSE) (ADN1.G0.2)
- Modified Hachinski Ischemia Scale (ADN1.G0.2)
- Montreal Cognitive Assessment (MoCA) (ADN6.G0.2)
- Neuropsychiatric Inventory (NPI) (ADN6)
- Neuropsychiatric Inventory Questionnaire (NPI-Q) (ADN6.G0.2)

# LONI: Download Data

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

The screenshot displays the ADNI LONI website interface. At the top, there is a navigation bar with links for 'ADNI @ LONI', 'PROJECTS', 'SEARCH', 'DOWNLOAD', 'EXPLORE', and 'LONI Home'. Below this is a 'Download Study Data' section. On the left, a sidebar menu lists various data categories: Assessments, Biospecimen, Enrolment, Genetic, Imaging, Medical History, Study Info, Subject Characteristics, and ALL. A red arrow points from the 'ALL' category to a list of data items. The list includes categories like 'Assessments' and 'ALL Neuropsychological', with several specific data items listed. A dialog box is open over the list, showing a file named 'DKSMPT\_PDRCONV\_ADRIALL.csv' selected for download. The dialog offers options to 'Open with' Microsoft Office Excel or 'Save File'.

# LONI: Download Data

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

ADNI

ADNI @ LONI PROJECTS SEARCH DOWNLOAD EXPLORE LONI Home

Study Data Image Collections

## Download Study Data

Download

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

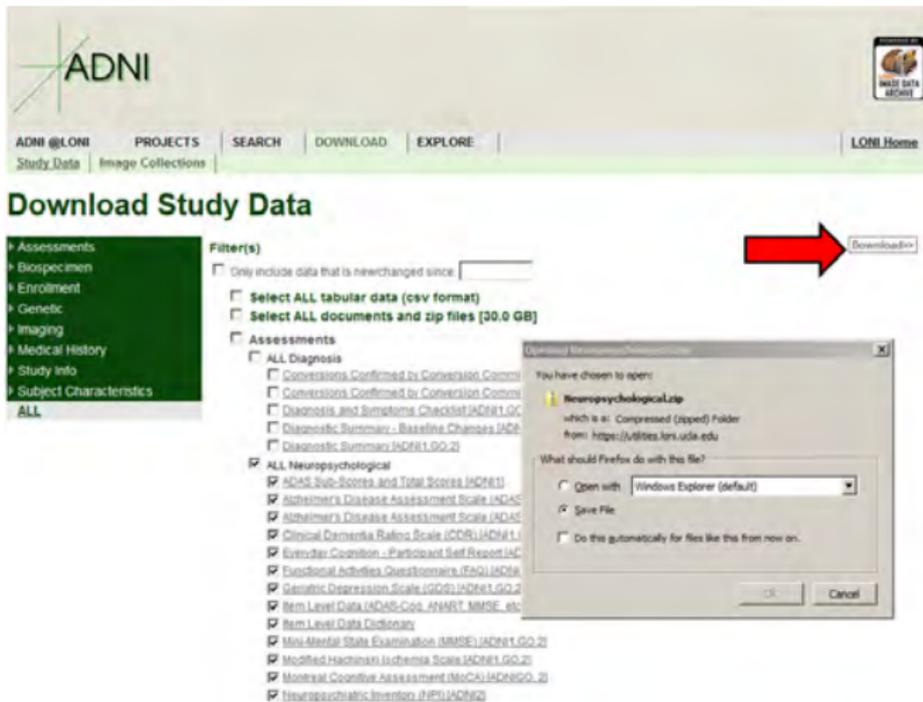
Filter(s)

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 Diagnostics
    - Conversions Confirmed by Conversion Committee Dictionary (ADNI1)
    - Conversions Confirmed by Conversion Committee (ADNI1)
    - Diagnostic and Symptoms Checklist (ADNI1.GG.2)
    - Diagnostic Summary - Baseline Changes (ADNI1.GG.2)
    - Diagnostic Summary (ADNI1.GG.2)
  - ALL Neuropsychological
    - ADAS Sub-Scores and Total Scores (ADNI1)
    - Alzheimer's Disease Assessment Scale (ADAS) (ADNI1)
    - Alzheimer's Disease Assessment Scale (ADAS) (ADNI1.GG.2)
    - Clinical Dementia Rating Scale (CDR) (ADNI1.GG.2)
    - Executive Cognition - Participant Self-Report (ADNI1.GG.2)
    - Functional Activities Questionnaire (FAQ) (ADNI1.GG.2)
    - Geriatric Depression Scale (GDS) (ADNI1.GG.2)
    - Item Level Data (ADAS-Cog, STAR-T, MMSE, etc)
    - Item Level Data Dictionary
    - Mini-Mental State Examination (MMSE) (ADNI1.GG.2)
    - Modified Hachinski Ischemia Scale (ADNI1.GG.2)
    - Montreal Cognitive Assessment (MoCA) (ADNI1.GG.2)
    - Neuropsychiatric Inventory (NPI) (ADNI1)
    - Neuropsychiatric Inventory (NPI) (ADNI1)

# LONI: Download Data

Then click Download.



The screenshot displays the ADNI website's 'Download Study Data' page. The top navigation bar includes '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, Subject Characteristics, and ALL. The 'Filter(s)' section on the right includes options to 'Only include data that is new/changed since' (with a date input), 'Select ALL tabular data (csv format)', and 'Select ALL documents and zip files [30.0 GB]'. Under 'Assessments', 'ALL Diagnosis' is expanded, and 'ALL Neuropsychological' is selected, listing various tests like ADAS Sub-Scores, Alzheimer's Disease Assessment Scale, and Montreal Cognitive Assessment. A red arrow points to the 'Download' button in the top right. A file dialog box is open, showing the file 'Neuropsychological.zip' selected for opening, with 'Windows Explorer (default)' chosen as the application to use.

# LONI: Download Data

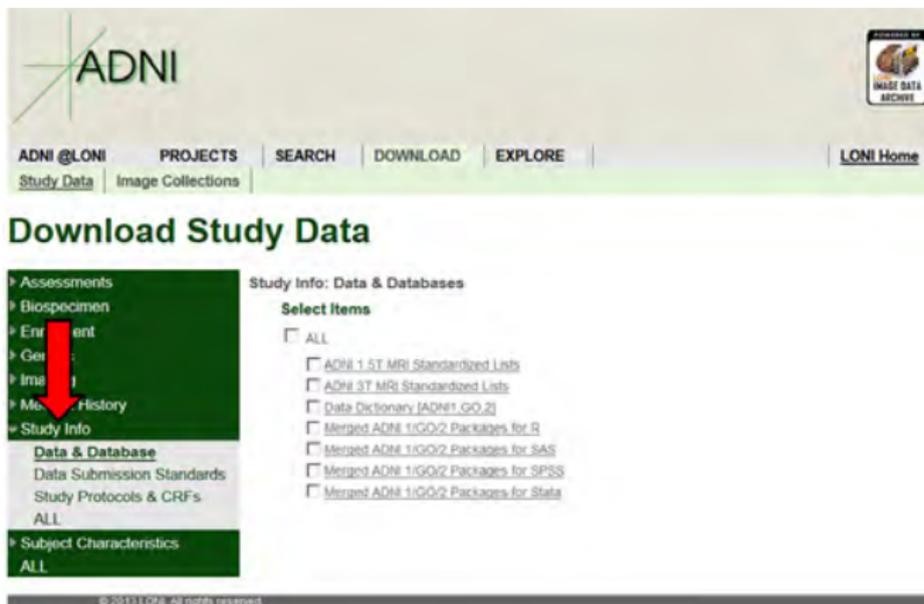
Optional: You can download data from a specific date.

The screenshot shows the ADNI LONI website interface. At the top, there is a navigation bar with links for 'ADNI @ LONI', 'PROJECTS', 'SEARCH', 'DOWNLOAD', and 'EXPLORE'. Below this, there are links for 'Study Data' and 'Image Collections'. The main heading is 'Download Study Data'. A red arrow points to this heading. On the left, there is a green sidebar with a list of data categories: Assessments, Biospecimen, Enrollment, Genetic, Imaging, Medical History, Study Info, Subject Characteristics, and ALL. The 'Assessments' category is selected. To the right of the sidebar, there is a list of data items with checkboxes. A calendar pop-up is visible, showing March 2013, with the 27th selected. The calendar has a table of dates:

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 ADNI website interface. At the top left is the ADNI logo. Below it is a navigation bar with links for ADNI@LONI, PROJECTS, SEARCH, DOWNLOAD, EXPLORE, and LONI Home. A secondary bar contains links for Study Data and Image Collections. The main heading is 'Download Study Data'. On the left is a green sidebar menu with categories: Assessments, Biospecimen, Enrollment, Genetics, Imaging, Medical History, Study Info, and Subject Characteristics. A red arrow points to 'Study Info', which is expanded to show 'Data & Database' (with sub-items: Data Submission Standards, Study Protocols & CRFs, ALL) and 'Subject Characteristics' (ALL). The main content area is titled 'Study Info: Data & Databases' and contains a 'Select Items' section with a list of checkboxes: 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 contains the copyright notice: © 2013 LONI. All rights reserved.

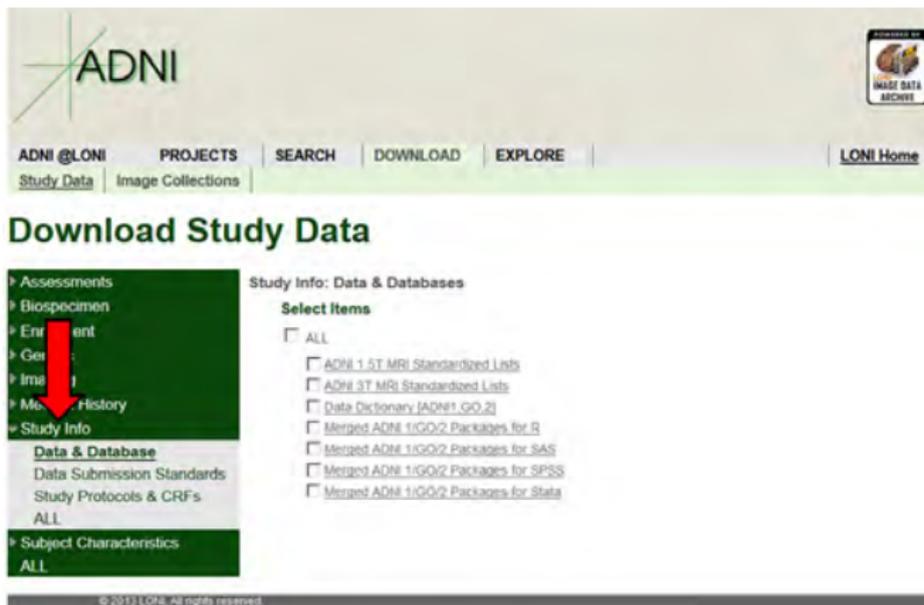
# ADNIMERGE

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 for ADNI @LONI, PROJECTS, SEARCH, DOWNLOAD, EXPLORE, and LONI Home. Below this is a sub-navigation bar with links for Study Data and Image Collections. The main content area is titled 'Download Study Data'. On the left, there is a green sidebar menu with categories: Assessments, Biospecimen, Enrollment, Genetics, Imaging, Medication History, Study Info, Data & Database, Subject Characteristics, and ALL. A red arrow points to the 'Data & Database' category. The 'Study Info: Data & Databases' section is expanded, showing a 'Select Items' list with checkboxes for various data packages, including 'Data Dictionary [ADNI1\_GO\_2]'. The footer of the page contains the copyright notice: © 2012 LONI. All rights reserved.

## LONI : Search Data

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

The screenshot shows the ADNI website home page. At the top, there is a search bar and the ADNI logo. Below the logo, there is a navigation menu with links for ABOUT, STUDY DESIGN, DATA & SAMPLES, METHODS & TOOLS, SUPPORT, and NEWS & PUBLICATIONS. The main content area features a banner with the text "Sharing Alzheimer's Research Data with the World" and a globe icon. Below the banner, there is a section titled "Search Terms for Data Dictionary" which is highlighted by a callout box. The callout box contains a list of links, including "Search Terms for Data Dictionary", "Update Account Information or Add Co-Investigators", and "Submit your ADNI Manuscript for Review".

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

Review of the ADNI Standardized 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...

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

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

# LONI : Search Data

You can enter a term you want to search.

The screenshot displays the ADNI website's 'Support' page. At the top, there is a search bar with the text 'Google search' and a 'SEARCH' button. Below the search bar, the text 'ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE' is visible. The main navigation menu includes 'ABOUT', 'STUDY DESIGN', 'DATA & SAMPLES', 'METHODS & TOOLS', 'SUPPORT', and 'NEWS & PUBLICATIONS'. The 'Support' section is highlighted, and a callout box points to a search interface for 'ADNI Data Archive Terms'. This interface includes a search bar with the placeholder text 'Type your term here...' and a green search button. The text below the search bar reads: 'Search the data dictionary for an explanation of terms used in the ADNI data archive.'

**ADNI**

ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE

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

**Support**

**ADNI Data Archive Terms**

Search the data dictionary for an explanation of terms used in the ADNI data archive.

Type your term here...

# LONI website: Data Dictionary Search

Search results for the 'USERDATE'.

The screenshot shows the ADNI website's Data Dictionary Search interface. At the top left is the ADNI logo. To the right is a search bar with the text 'Google™ Custom Search' and a link for 'Access: Data'. Below the search bar is a navigation menu with links for 'ABOUT', 'STUDY DESIGN', 'DATA & SAMPLES', 'METHODS & TOOLS', 'SUPPORT', and 'NEWS & PUBLICA'. The main content area is titled 'Data Dictionary Search' and displays 'Results for "userdate"'. The results are presented in three table-like entries, each with columns for Term, Definition, Phase, and Table. The first entry is for 'USERDATE' (Date record created), the second for 'USERDATE2' (Date record last updated), and the third for 'USERDATE' (Date record created). A search bar on the right side of the page contains the text 'Type your term'. At the bottom of the page, there are navigation icons for back, forward, and search.

ADNI

Google™ Custom Search

Access: Data

ALZHEIMER'S DISEASE NEUROIMA

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

ADNI > Data Dictionary Search

### Data Dictionary Search

Results for "userdate"

<b>Term</b>	USERDATE
<b>Definition</b>	Date record created
<b>Phase</b>	ADNI1,ADNIGO
<b>Table</b>	AAL

---

<b>Term</b>	USERDATE2
<b>Definition</b>	Date record last updated
<b>Phase</b>	ADNI1,ADNIGO
<b>Table</b>	AAL

---

<b>Term</b>	USERDATE
<b>Definition</b>	Date record created
<b>Phase</b>	ADNI1,ADNIGO
<b>Table</b>	AALFLD

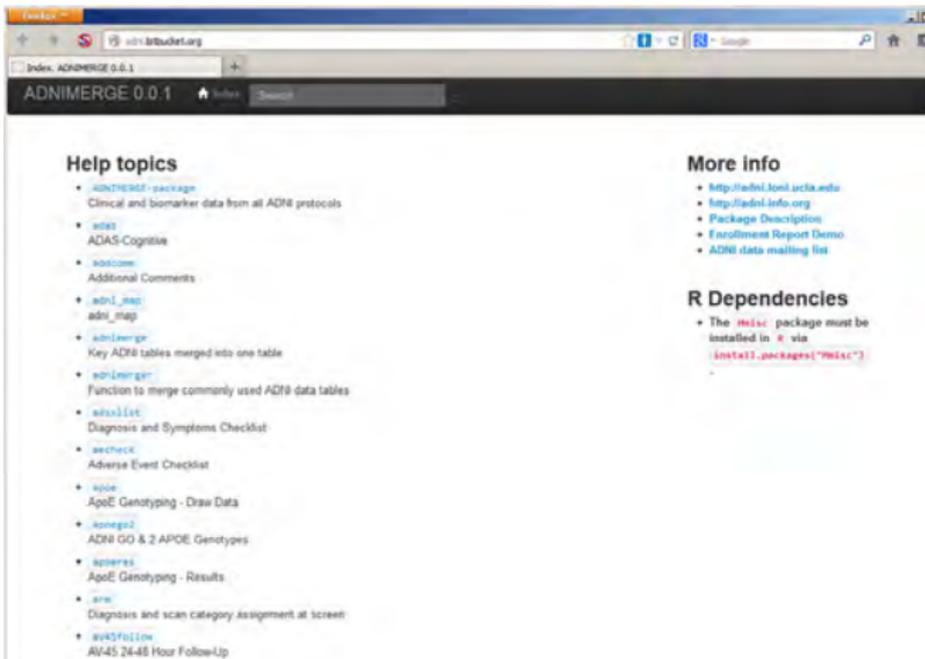
ADNI > Data Dictionary Search

Data Dic Search

Type your term

# ADNIMERGE package

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



The screenshot shows a web browser window displaying the index page for the ADNIMERGE 0.0.1 package. The page title is "Index, ADNIMERGE 0.0.1" and the URL is "adni.bitbucket.org". The page content is organized into several sections:

- Help topics**
  - [ADNIMERGE - package](#): Clinical and biomarker data from all ADNI protocols
  - [adni](#): ADAS-Cognitive
  - [adcom](#): Additional Comments
  - [adni\\_map](#): adni\_map
  - [adniMerge](#): Key ADNI tables merged into one table
  - [adniMerge](#): Function to merge commonly used ADNI data tables
  - [adlist](#): Diagnosis and Symptoms Checklist
  - [adcheck](#): Adverse Event Checklist
  - [apoe](#): ApoE Genotyping - Draw Data
  - [adngo2](#): ADNI GO & 2 APOE Genotypes
  - [apoeRes](#): ApoE Genotyping - Results
  - [adsc](#): Diagnosis and scan category assignment at screen
  - [ad4Follow](#): AD45 24-48 Hour Follow-Up
- More info**
  - <http://adni.loni.ucla.edu>
  - <http://adni-info.org>
  - [Package Description](#)
  - [Enrollment Report Demo](#)
  - [ADNI data mailing list](#)
- R Dependencies**
  - The `misc` package must be installed in R via `install.packages("misc")`

# 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 \$<\$I--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

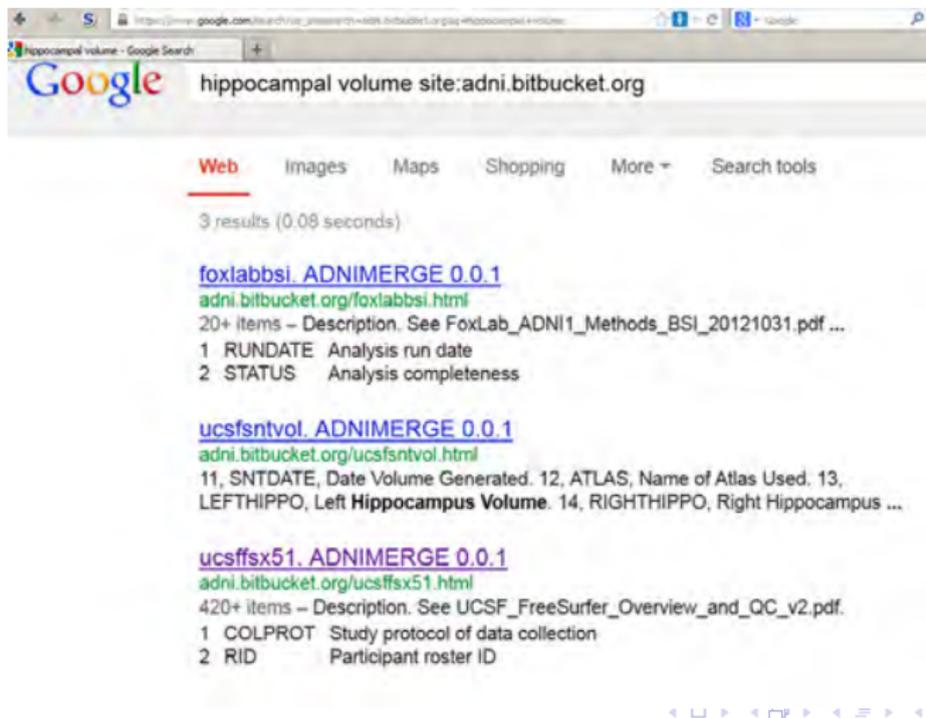
For example, we can enter **hippocampal volume**.



The screenshot shows a web browser window displaying the ADNI MERGE 0.0.1 website. The search bar at the top contains the text "hippocampal volume". The page layout includes a "Help topic" sidebar on the left, a main content area, and a "More info" section on the right. The "More info" section lists links for "http://adni.loni.ucla.edu", "http://adni-info.org", "Package Description", "Enrollment Report Demo", and "ADNI data mailing list". The "R Dependencies" section indicates that the "shazic" package must be installed in R via the command `install.packages("shazic")`.

# ADNI MERGE document

This will be the search result.



The screenshot shows a Google search interface. The search bar contains the text "hippocampal volume site:adni.bitbucket.org". Below the search bar, there are tabs for "Web", "Images", "Maps", "Shopping", "More", and "Search tools". The "Web" tab is selected. The search results are displayed below the tabs, showing 3 results in 0.08 seconds. The first result is titled "foxlabsi\_ADNIMERGE 0.0.1" and is a link to "adni.bitbucket.org/foxlabsi.html". The description for this result is "20+ items - Description. See FoxLab\_ADNI1\_Methods\_BSI\_20121031.pdf ..." and it lists two items: "1 RUNDATE Analysis run date" and "2 STATUS Analysis completeness". The second result is titled "ucsfntvol\_ADNIMERGE 0.0.1" and is a link to "adni.bitbucket.org/ucsfntvol.html". The description for this result is "11, SNTDATE, Date Volume Generated. 12, ATLAS, Name of Atlas Used. 13, LEFTHIPPO, Left Hippocampus Volume. 14, RIGHTHIPPO, Right Hippocampus ...". The third result is titled "ucsf51\_ADNIMERGE 0.0.1" and is a link to "adni.bitbucket.org/ucsf51.html". The description for this result is "420+ items - Description. See UCSF\_FreeSurfer\_Overview\_and\_QC\_v2.pdf." and it lists two items: "1 COLPROT Study protocol of data collection" and "2 RID Participant roster ID".

# 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 website interface. At the top, there is a search bar and navigation links for 'Home', 'Data', 'Visual Data', and 'Contact Us'. Below this is a main navigation menu with categories: 'ABOUT', 'STUDY DESIGN', 'DATA & SAMPLES', 'METHODS & TOOLS', 'SUPPORT', and 'NEWS & PUBLICATIONS'. The main content area is titled 'Access Data' and contains text about data access for scientists. Below the text are two login forms. The first form, titled 'Data Archive Login', has fields for 'EMAIL' (containing 'your e-mail') and 'PASSWORD' (represented by dots), and a 'Submit' button. The second form, titled 'Maintaining Your ADNI Data Use Account', also has fields for 'EMAIL' and 'PASSWORD' and a 'Submit' button. At the bottom of the page, there are three circular logos for ADNI, ADNI & aibl, and aibl. The footer text reads 'ALZHEIMER'S DISEASE'.

# Visualization Tool

Click EXPLORE tab

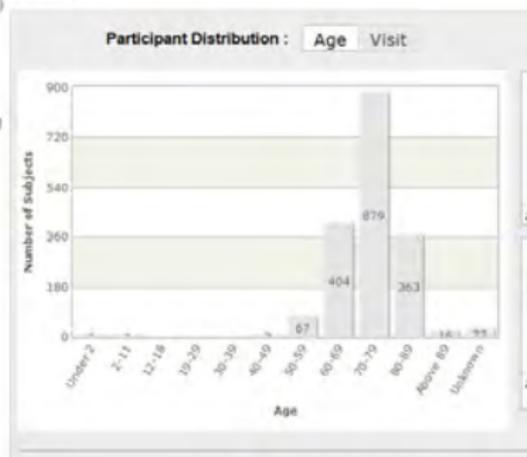


## Alzheimer's Disease Neuroimaging Initiative

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/GD2 DOWNLOAD INSTRUCTIONS](#)
- [MRI RECALL NOTICES](#)



# Visualization Tool

## Visualization Page



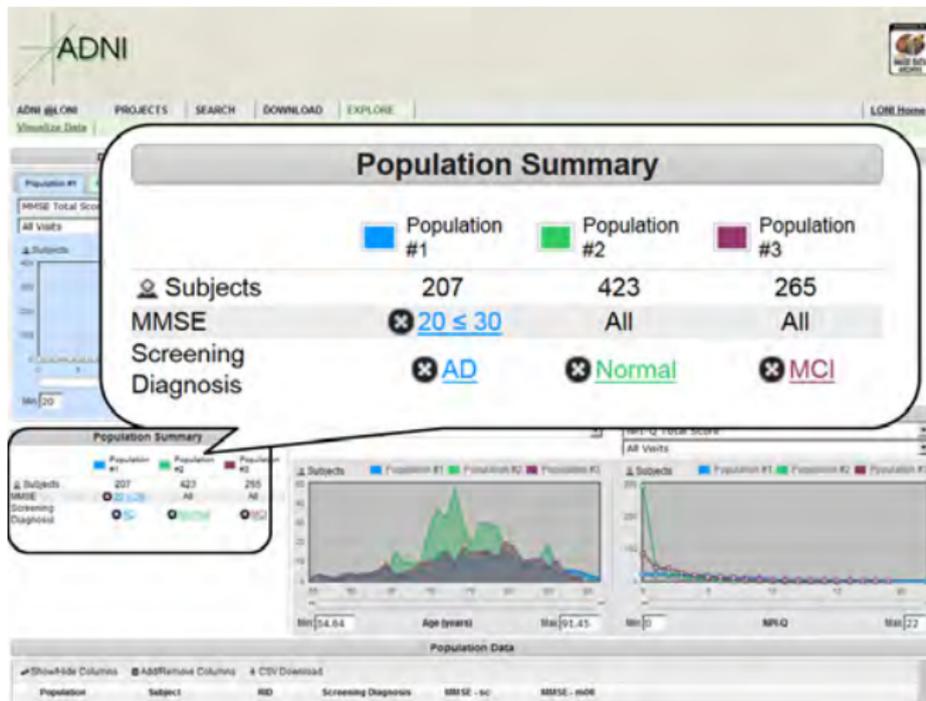
# Visualization Tool: Define Populations

First, you need to define populations.



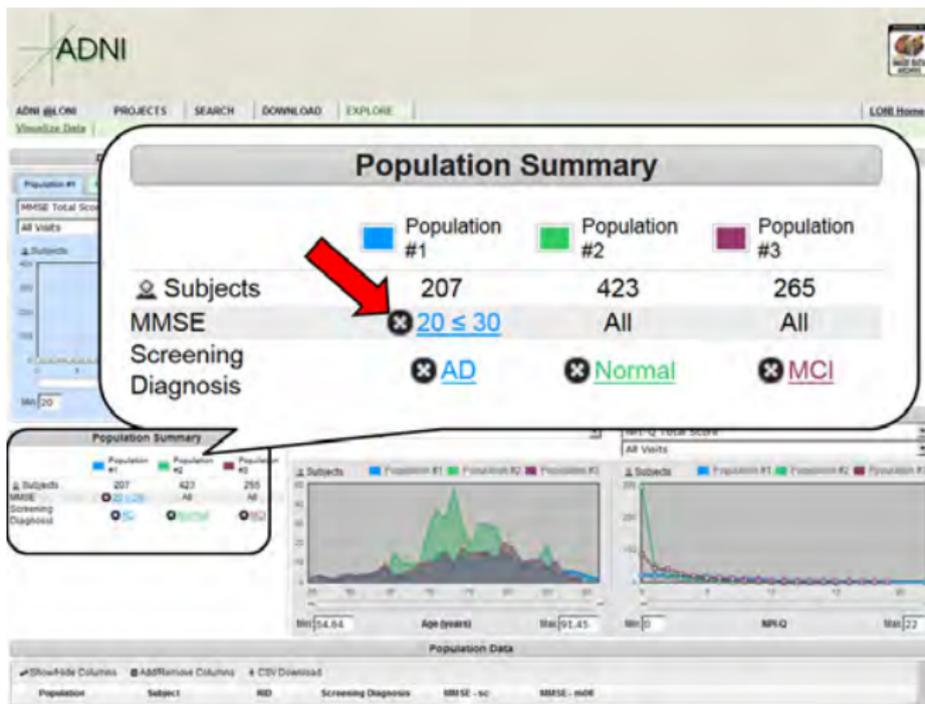
# Visualization Tool: Define Populations

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



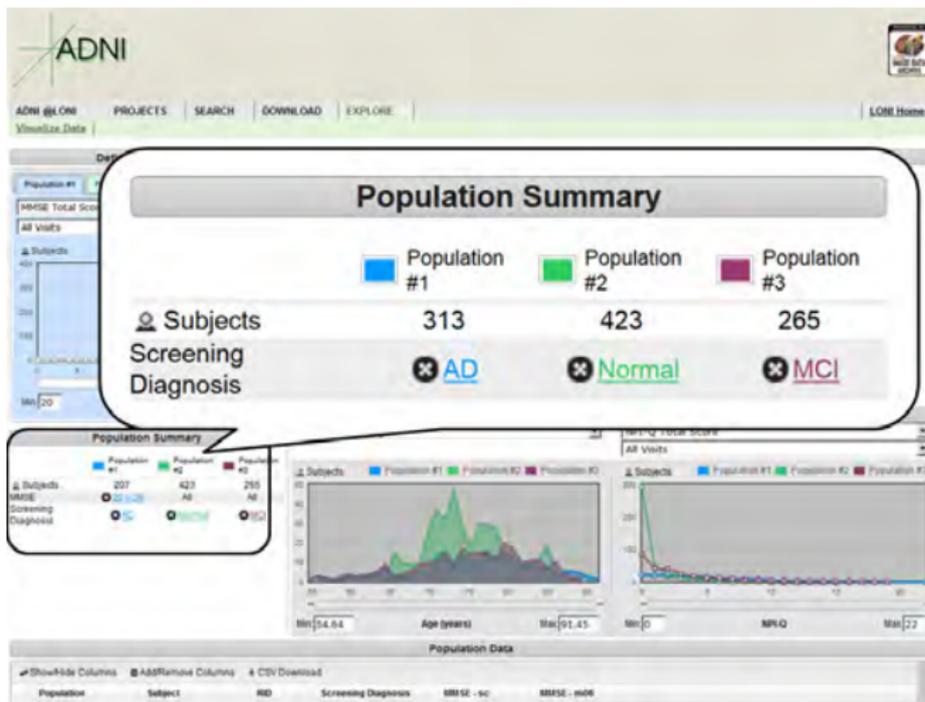
# Visualization Tool: Define Populations

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 'Define Populations' interface in the ADNI Visualization Tool. The interface is divided into three tabs: Population #1 (blue), Population #2 (green), and Population #3 (pink). A search bar is located at the top left of the interface. Below the search bar, there is a list of variables for defining populations. The variables are grouped into sections: 'Assessments' and 'Measurements'. The 'Modified Hachinski Total Score' variable is highlighted in blue. Below the list of variables, there is a 'Population Summary' table showing the number of subjects for each population.

	Population #1	Population #2	Population #3
Subjects	207	423	250
MMSE	171	148	148
Screening	171	148	148
Diagnosis	171	148	148

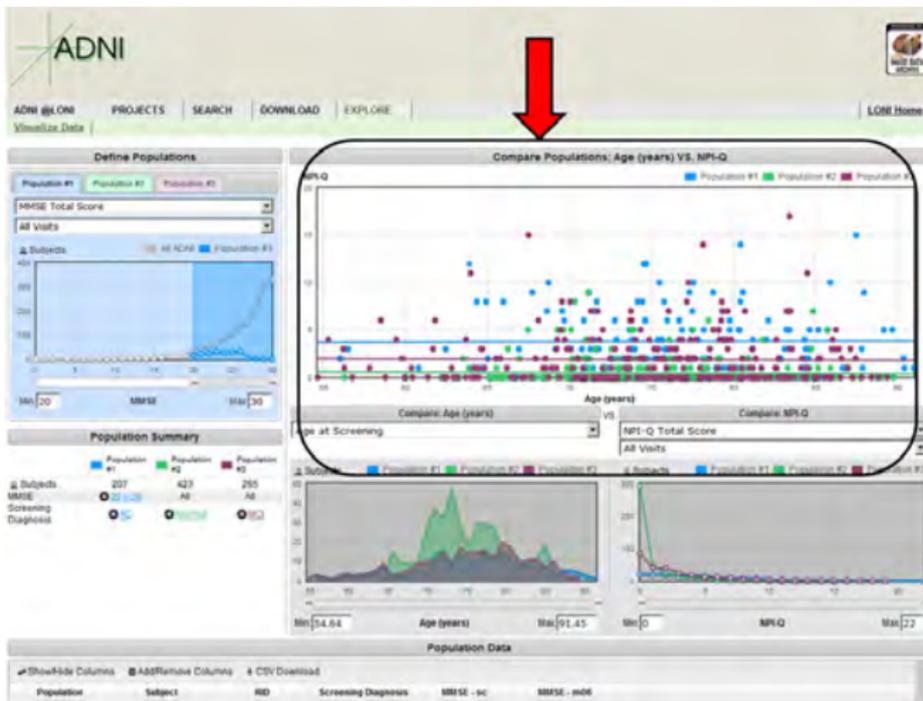
## Visualization Tool: Define Populations

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

The screenshot displays the ADNI 'Define Populations' interface. The main window is titled 'Define Populations' and has three tabs: 'Population #1', 'Population #2', and 'Population #3'. The 'Population #1' tab is active, showing a list of variables. The variables are grouped into sections: 'Assessments' and 'Measurements'. The 'Modified Hachinski Total Score' variable is highlighted in blue. A dropdown menu is open, showing a list of visit times: 'All Visits', 'Screening', 'Month 6', 'Month 12', 'Month 18', 'Month 24', 'Month 36', 'Month 48', 'Month 60', and 'Month 72'. The 'All Visits' option is selected and highlighted in blue. The interface also shows a search bar, a 'Show/Hide Columns' button, and a 'Subject' dropdown menu.

# Visualization Tool: Compare Populations

Second, you need to select variables.



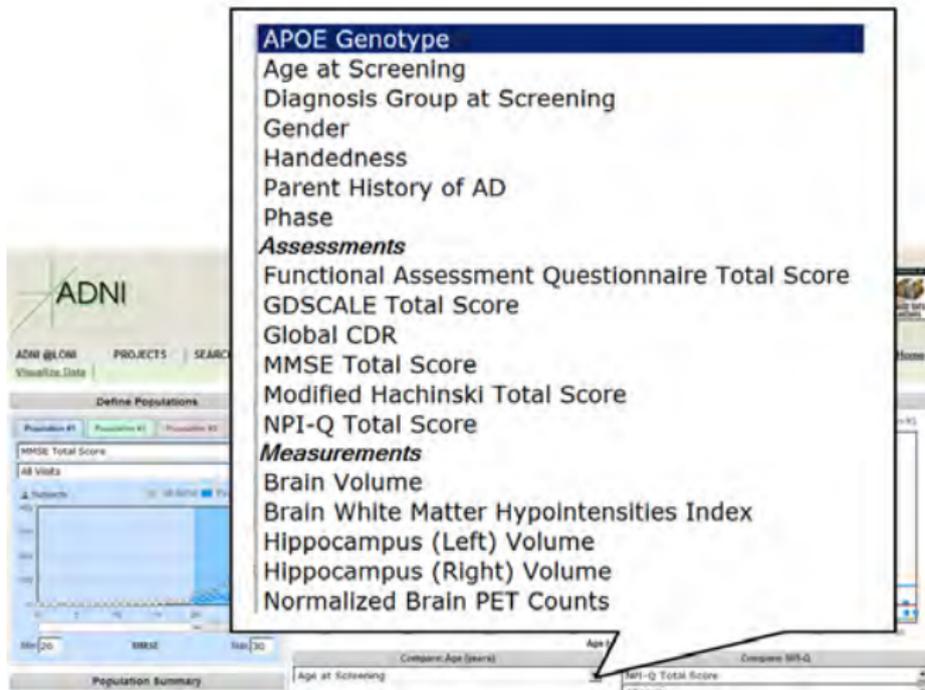
# Visualization Tool: Compare Populations

Currently, Age at Screening and NPI are set.



## Visualization Tool: Compare Populations

We can choose different variables from pull-down menu.



The screenshot displays the ADNI Visualization Tool interface. A pull-down menu is open, listing various variables for comparison. The variables are categorized into APOE Genotype, Assessments, and Measurements. The background shows the 'Define Populations' section with a graph and a 'Population Summary' table.

**ADNI**

ADNI @ LONI PROJECTS SEARCH  
Visualize Data

Define Populations

Population #1 Population #2 Population #3

MMSE Total Score

All Visits

Subjects

Population Summary

Compare: Age (years) Age at Screening

Compare: MMSE-Q MMSE-Q 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
- NPI-Q Total Score

**Measurements**

- Brain Volume
- Brain White Matter Hypointensities Index
- Hippocampus (Left) Volume
- Hippocampus (Right) Volume
- Normalized Brain PET Counts

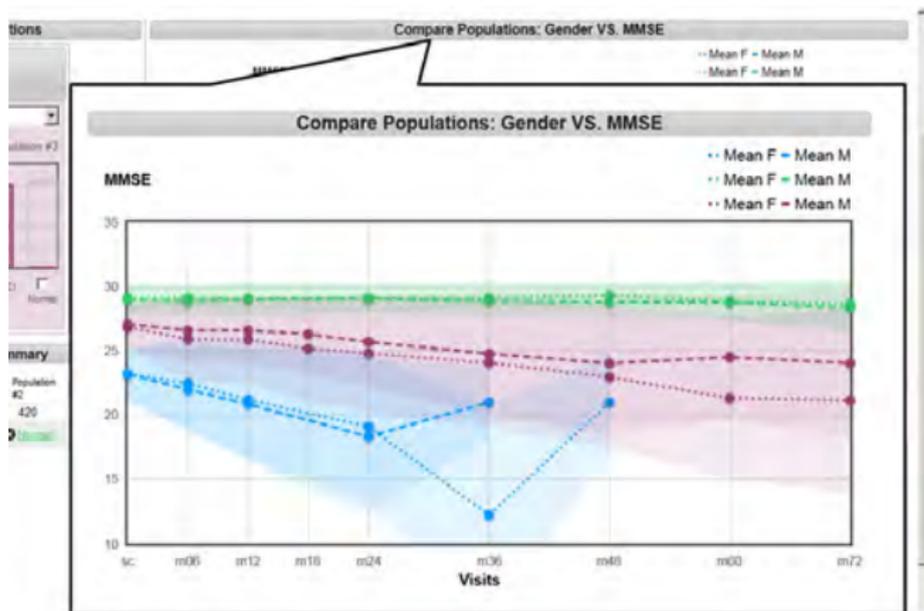
# Visualization Tool: Compare Populations

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.

The screenshot displays the ADNI Visualization Tool interface. A callout box with a grid icon and the text "Add/Remove Columns" points to the "Add/Remove Columns" button in the "Population Data" section. Below this, a table shows subject data with columns for Population, Subject, RID, Screening Diagnosis, MMSE - sc, and MMSE - mb6. The table lists 15 subjects, with the first row showing Population #2 and Subject #1. The interface also includes a "Population Summary" section with statistics for three populations (274, 420, 405) and a "CSV Download" button.

Population	Subject	RID	Screening Diagnosis	MMSE - sc	MMSE - mb6
#2	#1				
#2	#2				
#2	#3				
#1	#4				
#2	#5				
#3	#6				
#3	#7				
#1	#8				

# 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"/> GDSCALE 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 checked="" 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"/>

**Show/Hide Columns**

Population

- #2
- #2
- #2
- #1
- #2
- #3
- #2
- #1

15 Page

# 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, there are two comparison panels: 'Compare Gender' and 'Compare MMSE'. The 'Compare MMSE' panel shows 'MMSE Total Score' and 'All Visits' selected. A 'Population Summary' section indicates 274 subjects in Population #1, 420 in Population #2, and 400 in Population #3. A 'Change Columns' dialog box is open in the foreground, listing various variables under 'Demographics' and 'Assessments'. A callout bubble points to a 'Change Columns' button in the bottom right corner of the dialog box. The dialog box also shows a 'Page 1 of 74' indicator and 'Displaying 1 to 15 of 1099 subjects'.

## Visualization Tool: Download Data

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

The screenshot displays the ADNI Visualization Tool interface. At the top, there are tabs for 'Min|0', 'MMSE', and 'Max|30'. Below this is a 'Population Summary' section with three populations: Population #1 (274 subjects), Population #2 (420 subjects), and Population #3 (405 subjects). The 'Screening Diagnosis' is set to 'Normal'. A 'Compare: Gender' dropdown is set to 'Gender', and a 'Compare: MMSE' dropdown is set to 'MMSE Total Score'. A bar chart shows the distribution of subjects across populations. A callout box with a download icon and the text 'CSV Download' points to a button in the 'Population Data' table. The table has columns for Population, Subject, Race, APOE, Age (years), Screening Diagnosis, and Gender. The first row shows a subject from Population #2 with an age of 84.90. The bottom of the interface shows 'Page 1 of 74' and 'Displaying 1 to 15 of 1009 subjects'.

Population	Subject	Race	APOE	Age (years)	Screening Diagnosis	Gender
#2				84.90		
#2				76.35		
#2				79.37		
#1				77.55		
#2				89.74		
#3				65.25		
#3				81.71		

## Visualization Tool: Download Data

This data will have wide format

The screenshot displays the ADNI Visualization Tool interface. A central dialog box titled "Opening data.csv" is open, asking the user what they want Firefox to do with the file. The dialog provides the following information:

- You have chosen to open **data.csv**
- which is a: Microsoft Office Excel Comma Separated Values File
- from: <https://ida.loni.ucla.edu>
- What should Firefox do with this file?
- Open with: Microsoft Office Excel (default)
- Save File
- Do this automatically for files like this from now on.

The background interface includes a "Population Summary" section with three population groups (Population #1, #2, #3) and a "Visits" section with "Compare: Gender" and "Compare: MMSE" options. A line graph on the right shows MMSE scores over time for the three populations. At the bottom, a table displays MMSE scores for individual subjects, with values such as 89.74, 66.25, and 81.71. The status bar at the bottom indicates "Displaying 1 to 15 of 1009 subjects".

## Having Question?

If you have questions, please check FAQ section first.



Still no answers?

## Having Question?

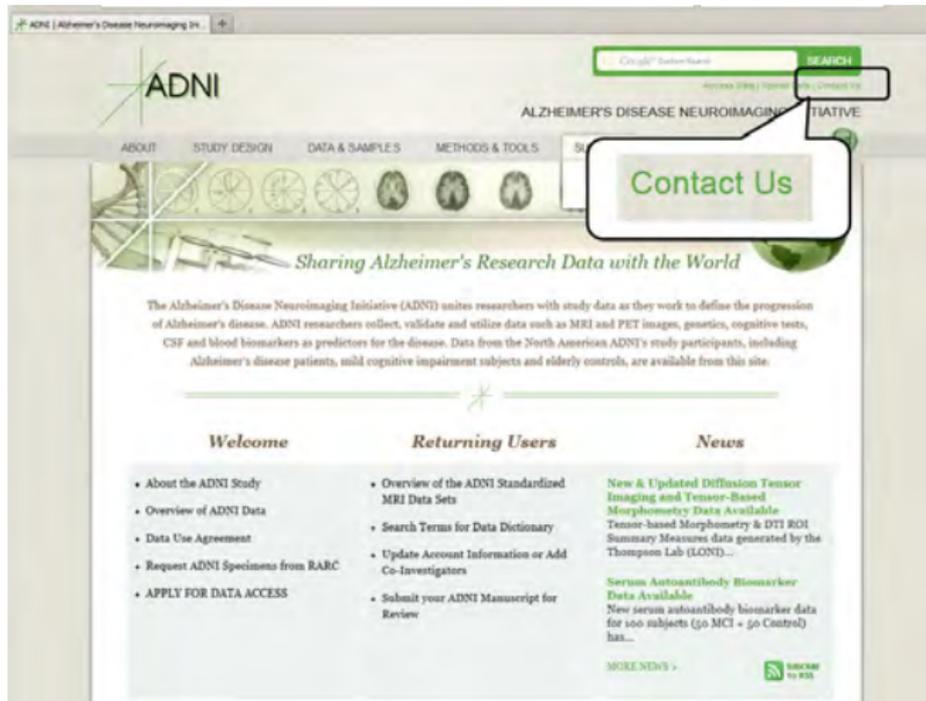
Search your question using **Experts Knowledge Base**.  
(will be available soon)

The screenshot shows the ADNI website's 'Experts Knowledge Base' page. The header includes the ADNI logo and navigation links: ABOUT, STUDY DESIGN, DATA & SAMPLES, METHODS & TOOLS, SUPPORT, and NEWS & PUBLICATIONS. The main content area is titled 'Experts Knowledge Base' and contains a welcome message, a search bar with the placeholder 'Type your term here...', and instructions on how to use the service. On the right side, there are sections for 'All Core Q&As' and 'Testing the fixed links', each with a date. The bottom of the page features a list of 'Core Q&As' including 'All Cores', 'Clinical Core', and 'MRI Core'.

Still no answers?

## Having Question?

You can contact us from here.



The screenshot shows the ADNI website interface. At the top, there is a search bar with the text "Click to search" and a "SEARCH" button. Below the search bar, the ADNI logo is displayed on the left, and the text "ALZHEIMER'S DISEASE NEUROIMAGING INITIATIVE" is on the right. A navigation menu includes "ABOUT", "STUDY DESIGN", "DATA & SAMPLES", and "METHODS & TOOLS". A large green button labeled "Contact Us" is prominently displayed in the center, with a white callout box pointing to it. Below the navigation, there is a banner with the text "Sharing Alzheimer's Research Data with the World" and a paragraph describing the ADNI initiative. The main content area is divided into three columns: "Welcome", "Returning Users", and "News".

**Welcome**

- 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
- Search Terms for Data Dictionary
- Update Account Information or Add Co-Investigators
- Submit your ADNI Manuscript for Review

**News**

**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 >

# 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

**Vgc8q**      **SUBMIT YOUR QUESTION**

<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 A<math>\beta</math> 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 navigation menu on the left with options like "My groups", "Home", "Stared", "Announcements", "Recently viewed", and "Favorites". The main content area features a yellow banner stating "There is one pending member to review". Below this, the group title "ADNI Data User Group" is displayed, followed by a description: "This group is devoted to questions from users of the ADNI data. Please check the documentation available from Laboratory of New UCLA, in particular <http://adni.loni.ucla.edu/data-samples/data-faq/>, before posting your question. To subscribe to list, send an em to [adni-data+subscribe@googlegroups.com](mailto:adni-data+subscribe@googlegroups.com)." A section titled "ADNIMERGE data package for R" provides instructions for users of R, including a code block for installing the package from a source repository. The code is: 

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

 The text continues: "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." The code block for installation is: 

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

# Q & A

Any questions?

# Thank You

Thank you.