



Alzheimer's Disease
Sequencing Project

ADSeq.org

An Introduction to the Alzheimer's Disease Sequencing Project (ADSP)

Alzheimer's Disease and Related Dementias (ADRD) are projected to affect **over 14 million people** in the US by 2060.

ADRDs have a huge **physical, economic, and emotional toll** on patients, caregivers, and society.





The Alzheimer's Disease Sequencing Project



ADSP began in **2012** as part of the **National Alzheimer's Project Act (NAPA)**.

It is administered by the **Division of Neuroscience** within the National Institutes on Aging (NIA) at NIH.

The **overall goal** of the ADSP is to **expand and coordinate genetics research** of AD/ADRD across diverse populations, globally.

The latest ADSP data wave (Release 5, November 2024) contains **whole-genome sequencing** from **58,000 participants** from across the world.



Multiple phenotypes for analysis are available

AD disease status is available for the majority of samples with WGS data.

The ADSP **Phenotype Harmonization Consortium** is harmonizing additional phenotypes across contributing cohorts. Some domains included are:



Neuropathological findings



Biomarkers



Imaging



Cardiovascular traits



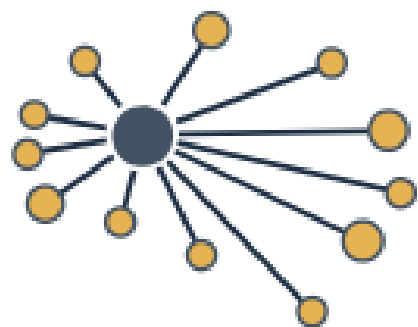
Cognitive measures





To access data for analyses, scientific investigators must submit a **Data Access Request** (DAR) through the **National Institute on Aging Genetics of Alzheimer Data Storage Site** (NIAGADS) **Data Sharing Service** (DSS)

<https://dss.niagads.org/>



dss
NIAGADS

Both **genome sequencing data** and **phenotype data** are available.

Seven key objectives from NIA for ADSP



1. **Identify new genes** involved in AD/ADRD.



2. **Identify variants** contributing to increased risk for or protection against AD/ADRD.



3. Provide insight as to why individuals with known risk factor genes have a **delayed onset or escape** from developing AD/ADRD.

Seven key objectives from NIA



4. Investigate the **impact of genetic admixture** on AD risk, resistance, or resilience.



5. Maximize the **scientific and translational impact** of the genetic discoveries by ensuring that the large-scale AD genetics data, methods, and analyses are **shared rapidly and broadly**.

Seven key objectives from NIA, cntd.

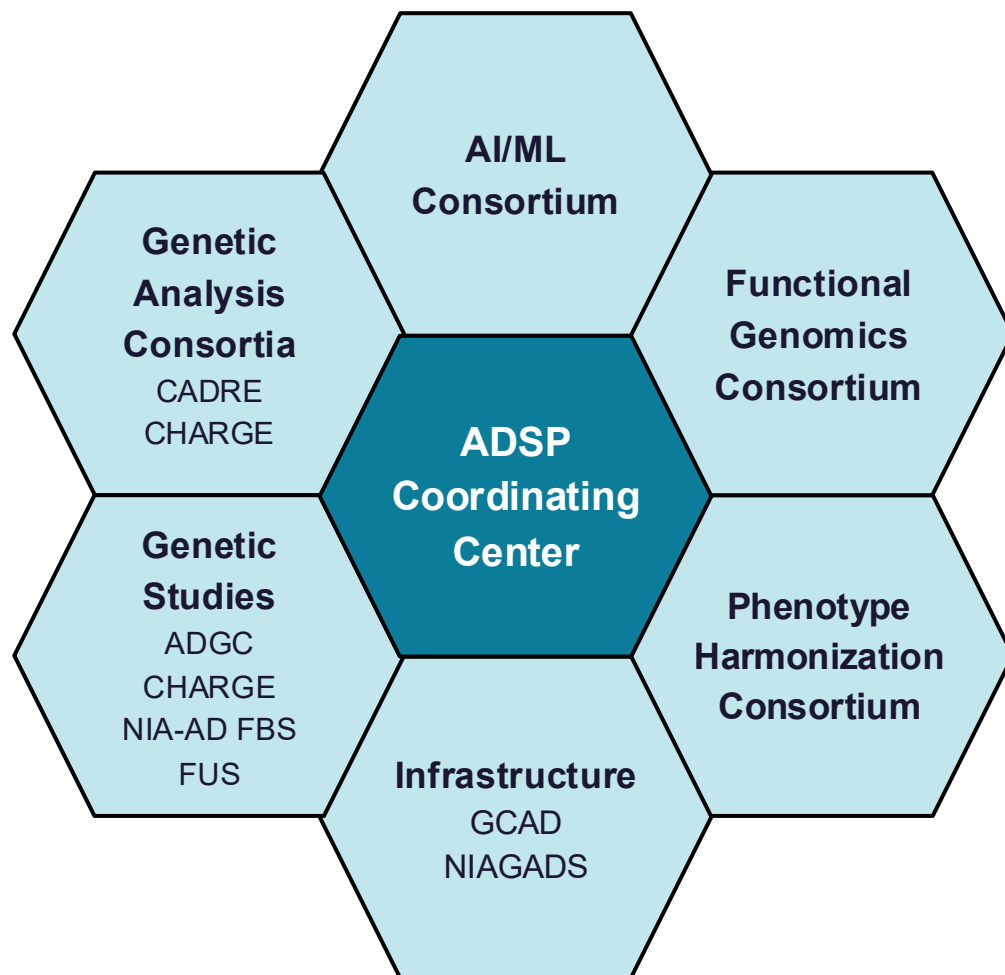


6. Facilitate the uptake of ADSP resources by the external research community through **effective outreach and communication**.



7. Develop metrics to **quantify the impact of ADSP resources** on basic and translational AD/ADRD research in support of NIA's overall strategy to enable a **precision medicine approach** to AD/ADRD treatment and prevention.

The Coordinating Center is central to all ADSP activities



The CC was **newly funded** in 2025 and focuses on the following activities:

- Administration & Coordination
- Resource Dissemination
- Collaboration & Outreach
- Education & Training

Thank you!

We look forward to working with global researchers to facilitate data access and use to **accelerate key discoveries** leading to a new understanding of **ADRD risk, protection, and resilience** and the development of **potential new therapeutics**.



Please visit the **new ADSP website** to learn more about:

- Applying for access to ADSP data
- ADSP working groups and committees
- ADSP consortia and infrastructure
- Publications, conference presentations, and workshops using ADSP data
- ADSP education and training initiatives

ADSeq.org



Questions?

Contact the
ADSP Coordinating Center!

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