

NIAGADS Update

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Datasets at NIAGADS

32 datasets | 45,000 subjects | 28 billion genotypes

Including:

- 13 GWAS
- 1 eGWAS
- 1 Expression
- 2 Linkage
- 11 Genotyping (<100k)
- 5 Summary Statistics
- 1 Whole Exome Sequencing
- 11 GWAS datasets with Imputation

Incoming Datasets:

- 2 Targeted Sequencing
- 4 GWAS
- 2 Summary Statistics
- 1 Exome Chip

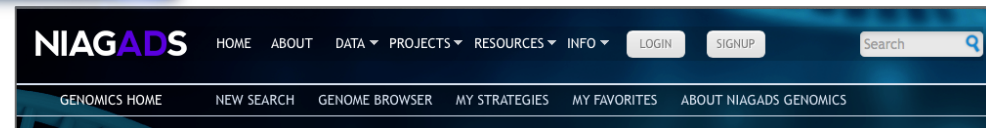
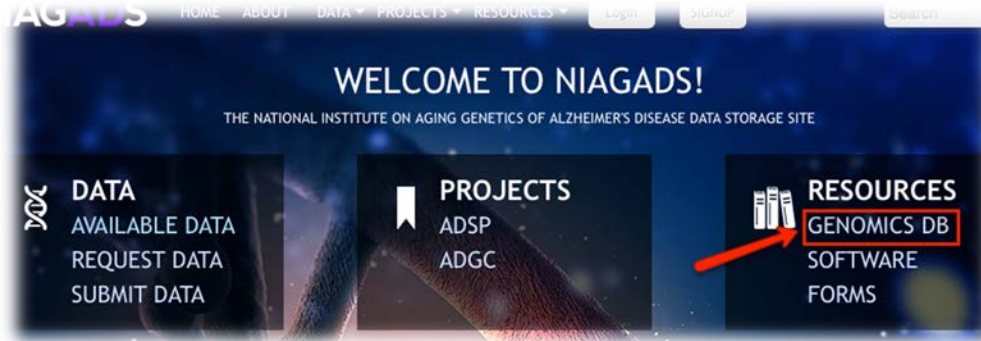
Apply for ADSP data access

Go to www.niagads.org/adsp , click **Apply for Data**



- All applications submitted to dbGaP, reviewed by NIH
- The dbGaP dataset ID for ADSP is **phs000572**.
- ADSP requires the following additional information:
 - **Secondary/derived data return plan** that will be generated by your study and deposited into NIAGADS
 - Signed **NIA Data Sharing Plan** and **NIAGADS Data Distribution Agreement** for ADSP
- Contact NIAGADS (data@niagads.org) for data application, we'd be glad to help step-by-step

NIAGADS Genomics Database can be reached via www.niagads.org



- **NIAGADS Genomics Database** includes commonly used genomic annotations and functional genomics data
- Help you identify your genomic regions of interest and quickly view what is known

Search
Search History
Add a list of Genes
Add a list of Genomic Locations

Genome Browser
Genome Browser
Gene and SNP Highlights
Highlights

Resources
Available Datasets
Recommend or Submit Data

News
January 19, 2015
Genome-wide association summary statistics for DGC African Americans (AA) (2013) (ADGC AA 0039) now available. Find SNPs with GWAS significance in selected datasets.

Strategy Highlights
Genes associated with SNPs with GWAS significance (p -value $< 1e^{-6}$) from ADGC AA (2013).

Combine searches on GWAS results and gene annotation to find genomic features

GWAS results combined with SNPs below

gene annotations (transformed to SNPs)

My Strategies: [New](#) [Opened \(1\)](#) [All \(1\)](#) [Examples](#)

(SNPs) Strategy: *IGAP (2013) identified SNPs associated with beta-amyloid binding genes **

Step 1: IGAP GWAS (781 SNPs) → Step 2: 6 SNPs (34190 SNPs associated with beta-amyloid binding Genes)

Expanded View of Step: SNPs associated with beta-amyloid binding Genes

Step 1: GO Term (23 Genes) → Step 2: Genes->SNPs (34190 SNPs)

Strategy: *IGAP (2013) identified SNPs associated with beta-amyloid binding genes* [Download 6 SNPs](#)

Step 2: 6 SNPs

SNP Results

To view additional details (e.g., annotation, external links, search weights) about your search results, click on the **Add Columns** button below. Rows can be sorted using the up/down arrows associated with column headers; columns can be moved by clicking and dragging the header. To view additional information on the data reported in a column, mouseover column headers.

Advanced Paging [Add Columns](#)

ID	Genomic Coordinates	Top Effects	ADGC stage 1 P-value
rs405509	chr19:45408836	MODIFIER (UPSTREAM; DOWNSTREAM; INTERGENIC)	3.045E-44
rs429358	chr19:45411941	MODERATE (NON_SYNONYMOUS_CODING)	N/A
rs440446	chr19:45409167	MODIFIER (DOWNSTREAM; INTRON)	N/A
rs7412	chr19:45412079	MODERATE (NON_SYNONYMOUS_CODING)	N/A
rs769449	chr19:45410002	MODIFIER (INTRON; DOWNSTREAM)	N/A
rs769450	chr19:45410444	MODIFIER (INTRON; DOWNSTREAM)	N/A

Advanced Paging

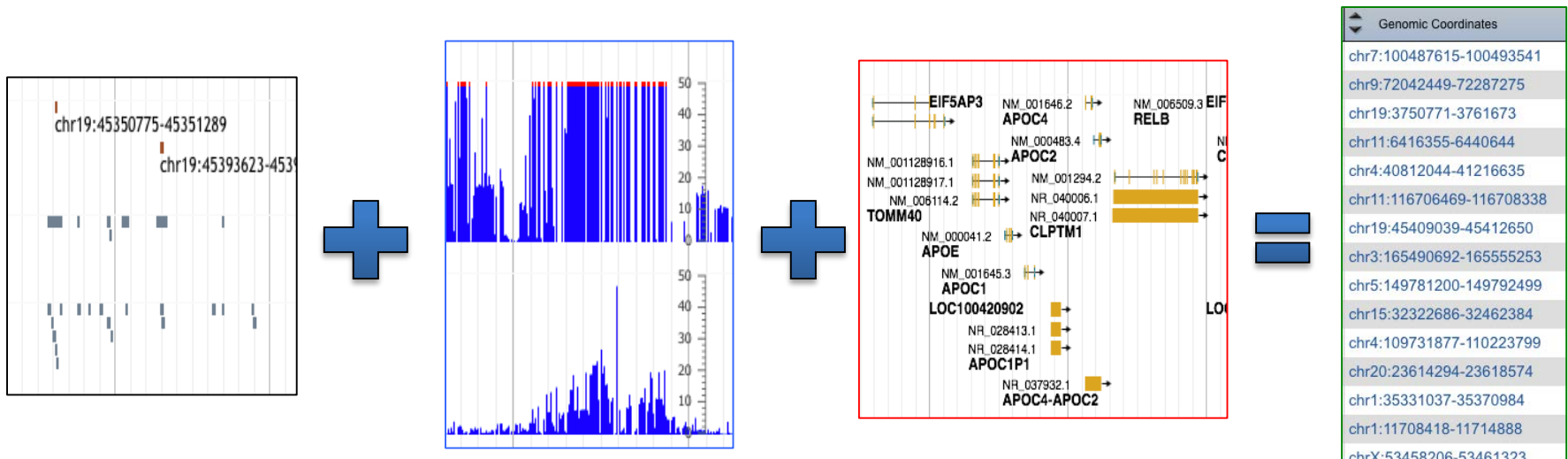
genomic features from identified SNPs

Find a genomic location - view tracks on the genome browser



Upcoming additions to NIAGADS Genomics

- New data sets
 - NG00037: Progressive Supranuclear Palsy (PSP) GWAS (Hoglinger et al. Nat Genet 2011)
 - NG00040- Multi-Ethnic Exome Array Study of AD, FTD, and PSP (Chen et al. JAMA Neurol 2015, Li et al. PLoS Genet 2014)
 - NG00041 - GWA Summary Statistics for Neuropathologic Features of AD and Related Dementias (Beecham et al. PLoS Genet 2014)
- Expand searches to include functional genomics data and perform **genome-wide** comparisons with GWAS results and genes.



Many thanks to

- **Patients and families**
- **NIA ADRC program and centers**
- **ADSP**
- **IGAP/ADGC/CHARGE/EADI/GERAD**
- **Support from NIA/NHGRI/NIH**

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