



# NCRAD

May 2017

## Annual ADC Conference Calls

THANK YOU to everyone that participated in an annual call with us this year. We always appreciate the opportunity to talk to each Center and learn about ways to make sample collection and shipping as well as the return of data easier for you.

## APOE Genotyping

As part of NCRAD's continuing effort to provide *APOE* genotypes on all ADC samples provided to NCRAD, additional data were posted in April. There is a single Excel file with all *APOE* genotypes included.

To obtain these *APOE* data, visit the NACC website at: <https://www.alz.washington.edu/adgc.html>, select your Center and choose the option to download *APOE* data from NCRAD. As always, please compare these data with any internal *APOE* genotype data you have generated. Please notify Kelley Faber ([kelfaber@iu.edu](mailto:kelfaber@iu.edu)) if you have any questions or find any discrepancies. We want to work with you in order to resolve these.

## **Key for *APOE* results on NACC site**

|         |         |                                    |
|---------|---------|------------------------------------|
| 1=e3/e3 | 4=e4/e4 |                                    |
| 2=e3/e4 | 5=e2/e4 | 9=missing/unknown/<br>not assessed |
| 3=e2/e3 | 6=e2/e2 |                                    |

**A Central Repository with DNA available to match the rich dataset collected for all subjects seen in the ADCs is a very valuable resource for the field of AD research. We hope you will continue to support this effort!**

## ADC Samples to NCRAD-New and Revised Lists

NCRAD continues to accept samples from all subjects with an MDS or UDS at NACC. NACC has updated the lists of samples for submission to NCRAD as of the March 2017 data freeze. The lists of subjects eligible to send to NCRAD have now been separated into "active" participants and "inactive" participants.

<https://www.alz.washington.edu/GWASPHASE2/gwasphas e2.html>

While fresh whole blood samples are preferred, NCRAD also accepts frozen buffy coats, transferred DNA and brain tissue samples. Our goal is to have a DNA sample banked and available from all MDS and UDS subjects.

Given the emphasis on sequencing autopsy confirmed cases and controls, a new file has been created that indicates subjects with no sample at NCRAD but who have neuropath data available. The file is called "IDs with Neuropath data at NACC without a sample at NCRAD". It can also be found in the Phase II section of the NACC site at the link listed above.

When sending samples, NCRAD will cover the cost of shipping and provide a blood kit or brain tissue/DNA tubes. In addition, *APOE* genotyping is done on all samples submitted once they match to the NACC lists.

More details about sample requirements, supply requests, and forms for submitting samples to NCRAD can be found on our NCRAD website here: [https://www.ncrad.org/sample\\_requirements.html](https://www.ncrad.org/sample_requirements.html).

Please continue to send samples for this very valuable project!

Please contact us with any questions or concerns about NCRAD at 800-526-2839/317-274-7360, by email at [kelfaber@iu.edu](mailto:kelfaber@iu.edu) or visit our web-site: [www.ncrad.org](http://www.ncrad.org) Thanks!!

## Coming Soon: INQuery

INQuery is a web-based user interface enabling access of data including phenotypes and genotypes associated with GWAS studies to qualified investigators. Harmonized phenotypes and genotypes (genome build hg37) will be available for all GWAS datasets housed in NIAGADS. In addition, information on the availability of a sample stored at NCRAD for request is provided. The database enables users to query a set of samples based on a particular phenotype/genotype of interest to determine if there is a sample available at NCRAD for further analysis. We will release INQuery by the fall of 2017.

Query for a set of samples based on genotype and phenotype:

1. Filter for subjects based on phenotype
2. Search for genotypes
3. See if NCRAD has a sample available for the subjects of interest

The screenshot shows the NIAGADS INQuery web interface. At the top, it says 'Allowed Dataset: ALL' and 'Logged in as apa'. The interface includes a search bar with 'Query By' options for 'By SNP' (selected) and 'By Position'. A search box contains the marker 'rs709830'. Below this is a table with columns: subject\_id, niagads\_dat..., ncrad\_sampl..., cohort, dx, sex, apoe, autopsy, and rs709830. A filter dialog box is open, showing 'NIAGADS\_Pheno\_View\_Sample.sex (varchar) Filter' with a dropdown set to 'M' and an 'Apply' button. The table displays multiple rows of data for subject NG00022 across different samples.

New Datasets available at <https://www.niagads.org/datasets>

**NG00053: IGAP Summary Statistics, ADGC Subset—**  
Lambert et al. (2013)

PI: Dr. Gerard Schellenberg, U of Pennsylvania

These data are summary statistics generated for the International Genomics of Alzheimer's Project (IGAP) meta-analysis of Genome-Wise Association data in Alzheimer's Disease. This dataset contains the ADGC subset of the data analyzed in Stage 1 of the meta-analysis.

**NG00056: Transethnic GWAS for AD Summary**  
**Statistics—**Jun et al. (2017)

PI: Dr. Lindsay Farrer, Boston University

These data are summary statistics generated from a transethnic GWAS analysis obtained from cohorts including European, African American, Japanese, and Israeli Arab Ancestries.

Visit the NIAGADS website at <http://www.niagads.org>.  
Contact us with questions at [niagads@upenn.edu](mailto:niagads@upenn.edu).