

National Cell Repository for Alzheimer Disease (NCRAD)

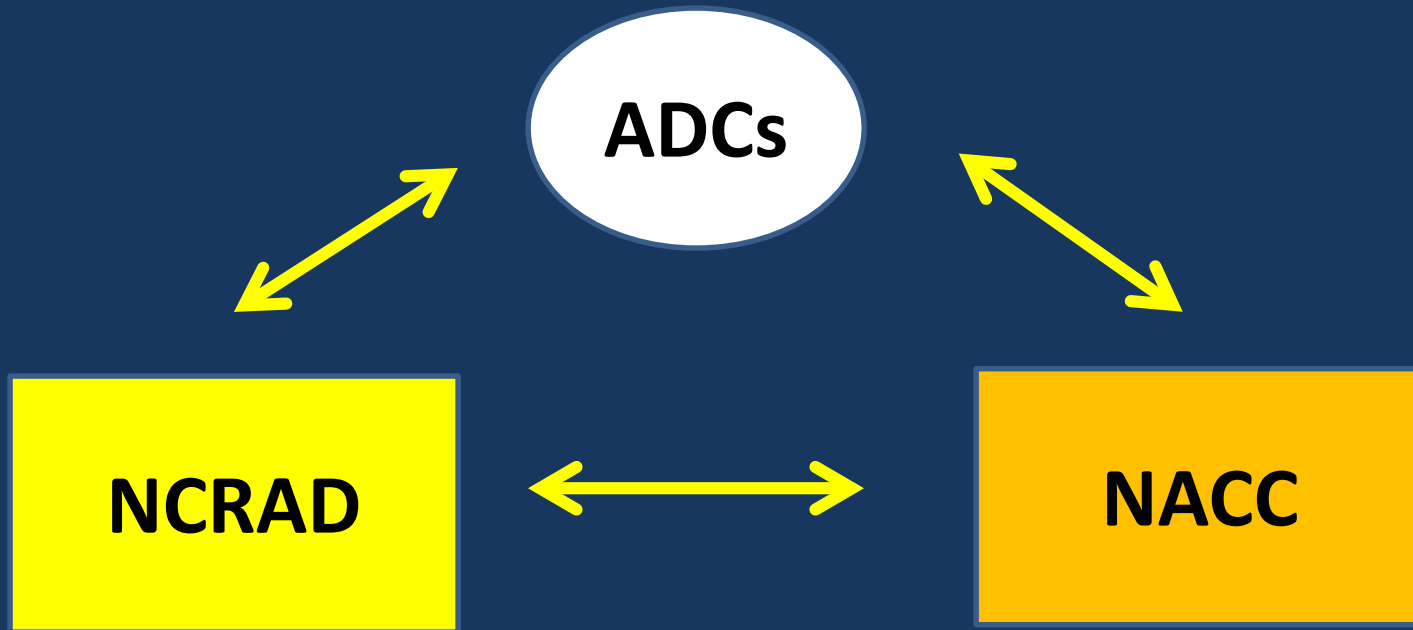
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Overall Goal of NCRAD

- NCRAD and NACC goal is to bank a sample from EVERYONE seen at an ADC!
 - Centralize samples at NCRAD to facilitate research
 - Centralized phenotyping at NACC to facilitate research

NCRAD-ADC-NACC-ADGC



NCRAD-ADC-NACC-ADGC Initiatives

- Initiatives with the ADGC
 - Phase I: Autopsy confirmed AD and controls
 - Send brain tissue or DNA
 - Phase II: Everyone with a UDS
 - Send DNA or buffy coat
 - Blood Eligible List: Subset of Phase II
 - Possible & Probable AD and controls
 - Send in blood samples

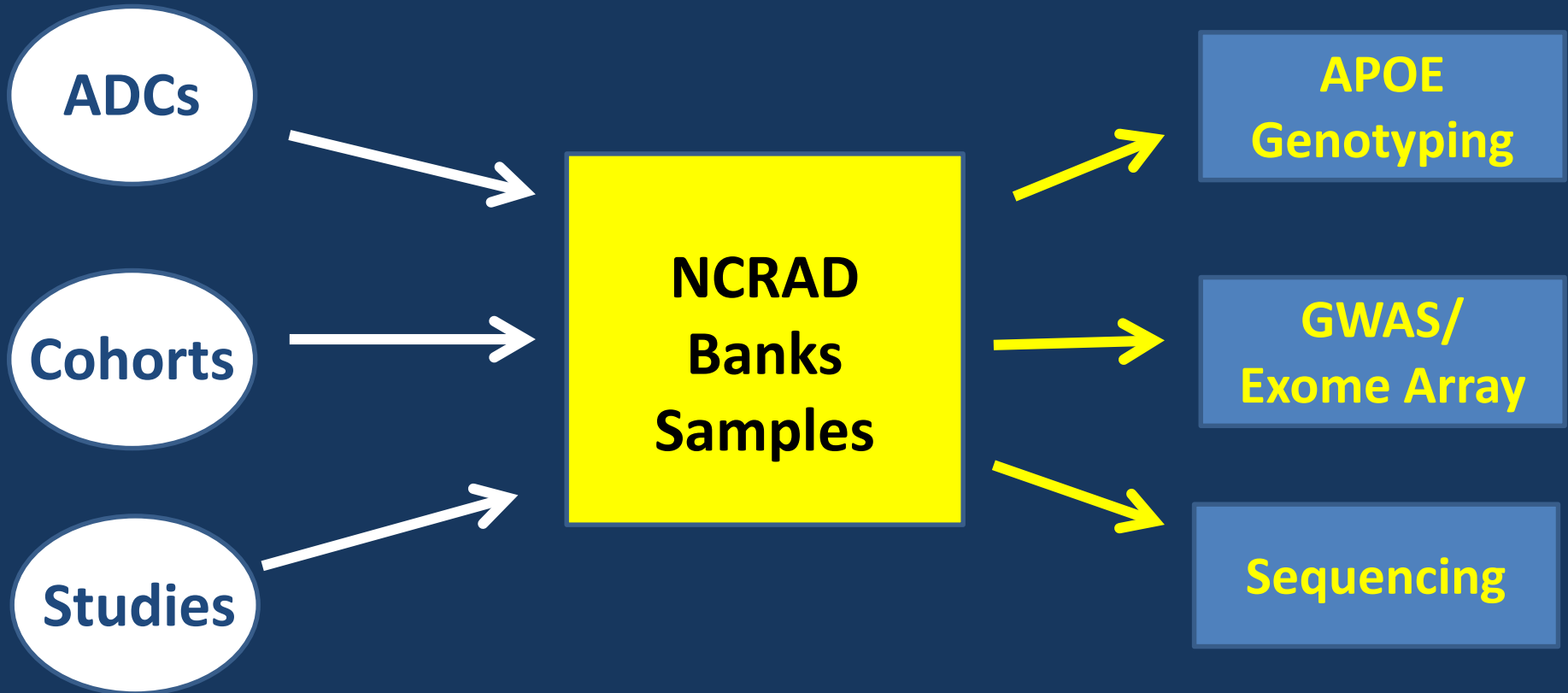
Updated site specific lists available on the NACC website

NCRAD Sample Update

ADC samples

	Phase I	Phase II
Blood	0	2,596
Brain	3,519	0
Transferred DNA aliquot	273	12,390
Buffy coat	0	1,395
Total	3,792	16,381

NCRAD's Broader Mission



Sites can download APOE and GWAS data for their samples through the NACC website

Studies Facilitated by Samples in NCRAD

- Alzheimer Disease Genetic Consortium (ADGC)
 - 23 papers published, 11 papers submitted
- NCRAD
 - 320 publications since inception
 - 53 publications in 2013 and 2014

*Samples submitted to NCRAD are critical
to the research community*

Low and Depleted Samples

- NCRAD provided to each ADC a list of samples which are low or depleted (< 10 ug of DNA)
- These samples are critical to research and we want to try to maintain a stock of all samples, whenever possible
- If you need your list resent, please contact us at NCRAD

Alzheimer Disease Sequencing Project (ADSP)

Discovery Phase

Whole Genome
Sequencing (WGS)
578 individuals from 111 families

Whole Exome
Sequencing (WES)
11,000 individuals
~ 5,000 cases; 5,000 controls

Replication Phase

Targeted Sequencing
50,000 individuals
~25,000 cases; 25,000 controls

Further Follow-up with
the ADGC

ADSP Replication Phase

- How to find 50,000 samples?
 - Samples used in WES can be reused
 - New samples sent in as part of Phase II lists
 - ADC MDS lists
- MDS lists
 - NACC provided lists to each ADC
 - Includes individuals reported to have DNA but not on previous Phase I or Phase II lists
 - Sites asked to help identify how many cases/controls with at least 5ug of DNA

ADSP Replication Phase

- Sites provide sample counts to NCRAD/NACC
 - Sites provide updated diagnostic information to NACC/Duane Beekly
- Sites send consents to NIAGADs for central review
- NCRAD approves transfer of samples from ADC
 - Reimbursement to sites for transfer or DNA aliquots
- Samples to NCRAD by end of 2014

NCRAD Final Thoughts!

- NCRAD thanks all the ADCs for holding their annual call with NCRAD
 - Reviewed sample contributions
 - Reviewed GWAS and APOE information
 - Identified opportunities to share more samples
- ADC encouraged to send samples to NCRAD
 - Blood or brain samples – receive 25ug of DNA

Call us with questions