

The National Cell Repository for Alzheimer's Disease

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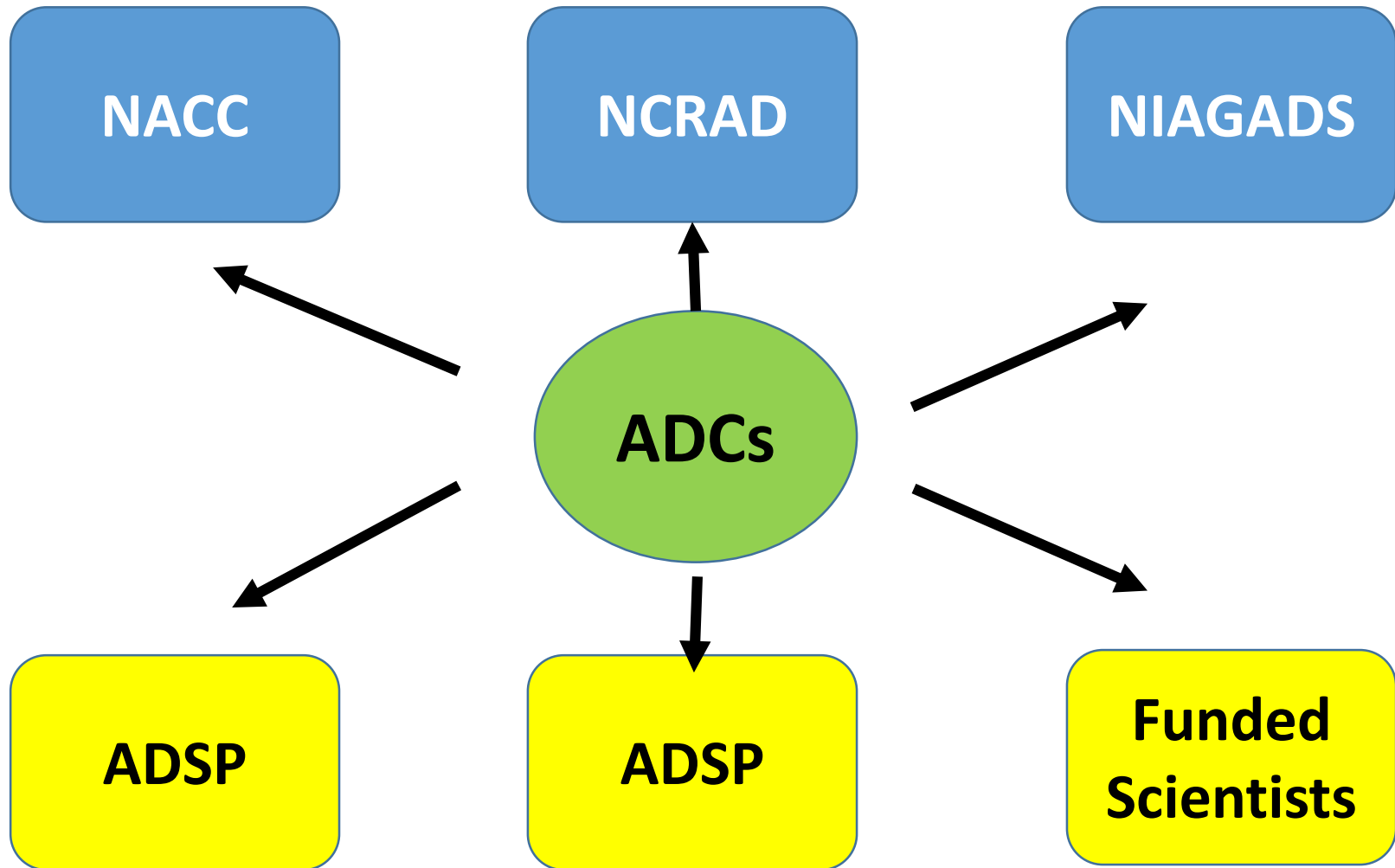


NCRAD Renewal

- NCRAD has been renewed for another 5 years!
- Thank you to everyone for your support and your letters!!

*Thank
You*

The Importance of the ADCs



ADC Samples at NCRAD

Sample Type	Counts
DNA	14,129
Blood	5,355
Brain Tissue	3,519
Buffy Coat	1,722
Total	24,725

Note: Totals include Phase 1 and Phase 2 subjects

Data for ADC Contributed Samples

- Of the **24,725** DNA samples at NCRAD.....
 - **23,551** with APOE
 - Plating next round right now
 - **13,825** with GWAS
 - Plating Round 9
 - Including AA, Hispanic and EA subjects
 - **11,379** with exome chip
 - **3,262** with whole exome sequencing (WES) (ADSP)
 - **1,183** with whole genome sequencing (WGS)
pending through ADSP

What is needed for ADCs to contribute to ADSP WGS?

- For an ADC to contribute samples, they must have GDS approval
 - 29 sites with GDS approval
 - **4 sites without GDS approval**
- NCRAD will be sending out reminders to these final four in the next couple of weeks.
- NCRAD will be asking sites to update these longitudinally in the future.

What does NCRAD bank?

- Bank samples from 25 different studies with 2 more starting soon
 - Over 55,000 sampled subjects
- Broad focus on dementia-related studies
 - Alzheimer disease
 - Mild cognitive impairment
 - Frontotemporal (lobar) dementia (FTD)
 - Progressive supranuclear palsy (PSP)
 - Healthy controls
 - Down syndrome
 - Parkinson disease

New NCRAD Studies

- **Alzheimer's Biomarkers Consortium of Down Syndrome (ABC-DS): ADDS and NiAD**
 - 7 sites, over 450 participants
 - Banking DNA, RNA, plasma, and serum with NCRAD
- **Amyloid Neuroimaging and Genetics Initiative (ANGI)**
 - Add-on Study to IDEAS (Imaging Dementia-Evidence for Amyloid Scanning) Study.
 - Banking saliva sample paired with data collected in IDEAS
- **4-Repeat Tauopathy Neuroimaging Initiative, Cycle 2 (4RTNI-2)**
 - PSP, CBD study
 - 6 sites, 230 subjects
 - Banking DNA, RNA, plasma, serum, CSF and PBMC with NCRAD

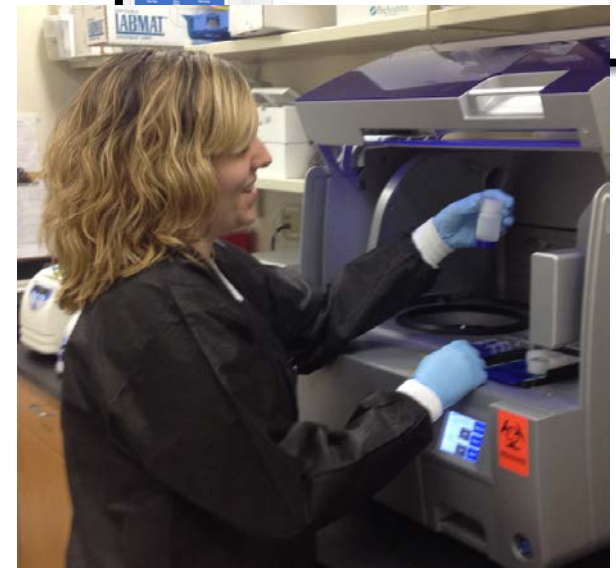
NCRAD's Services:

- Create Manual of Procedures
- Supplying Kits
 - Supplies to draw, process, and ship supplies back to NCRAD
- Study Coordinator Training
- Sample Receipt, Processing, and Storage
- Fulfilling Sample Orders from Approved Investigators



Training Overview:

- Study Update Overview
- Kit/Kit Request Module Update
- Specimen Label Update
- Sample Handling/Processing Update
- Sample Shipping Update
- Sample Form Updates
- Questions?



ADSP WGS Follow-Up Study

Center	Study	Autopsy Cases	Non Autopsy Cases	Autopsy Controls	Non Autopsy Controls
European Am (Broad)	ACT	146	0	130	0
	ADC	354	0	336	34
		500		500	
African Am (WashU)	ADC	68	185	7	199
	Indpls-Ibadan	0	110	0	295
	WHICAP	0	103	0	33
		466		534	
Hispanic Am (Baylor)	EFIGA	0	314	0	339
	WHICAP	0	186	0	161
		500		500	

ADSP WGS FOA

- FOA for Follow-up sequencing announced August 2016
 - Due February 2017
- Sequencing 10,000 cases/controls total in 2 phases of follow-up
 - 3,000 cases/controls in previous follow-up phase
 - **7,000 cases/controls in next follow-up phase**
- NCRAD's role
 - Receive and prepare DNA
 - Perform QC checks
 - Bank DNA aliquots
 - Plate and ship samples to sequencing centers
 - Track specimens through sequencing process



NCRAD Team

Office Staff



Laboratory Staff



Acknowledgements

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- Studies contributing samples to NCRAD
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- NIAGADS
- ADGC
- NIA
- Replication Working Group
 - Richard Mayeux
 - Sudha Seshadri
- NCRAD Executive Committee
 - Deborah Blacker (Chair)
 - Steve DeKosky
 - Bernie Devlin
 - Alison Goate
 - David Holtzman
 - Bud Kukull
 - Richard Mayeux
 - Rosa Rademakers
 - Gerard Schellenberg
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