

National Centralized Repository for Alzheimer's Disease and Related Dementias (NCRAD) Updates



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NCRAD Team at ADRC Meeting



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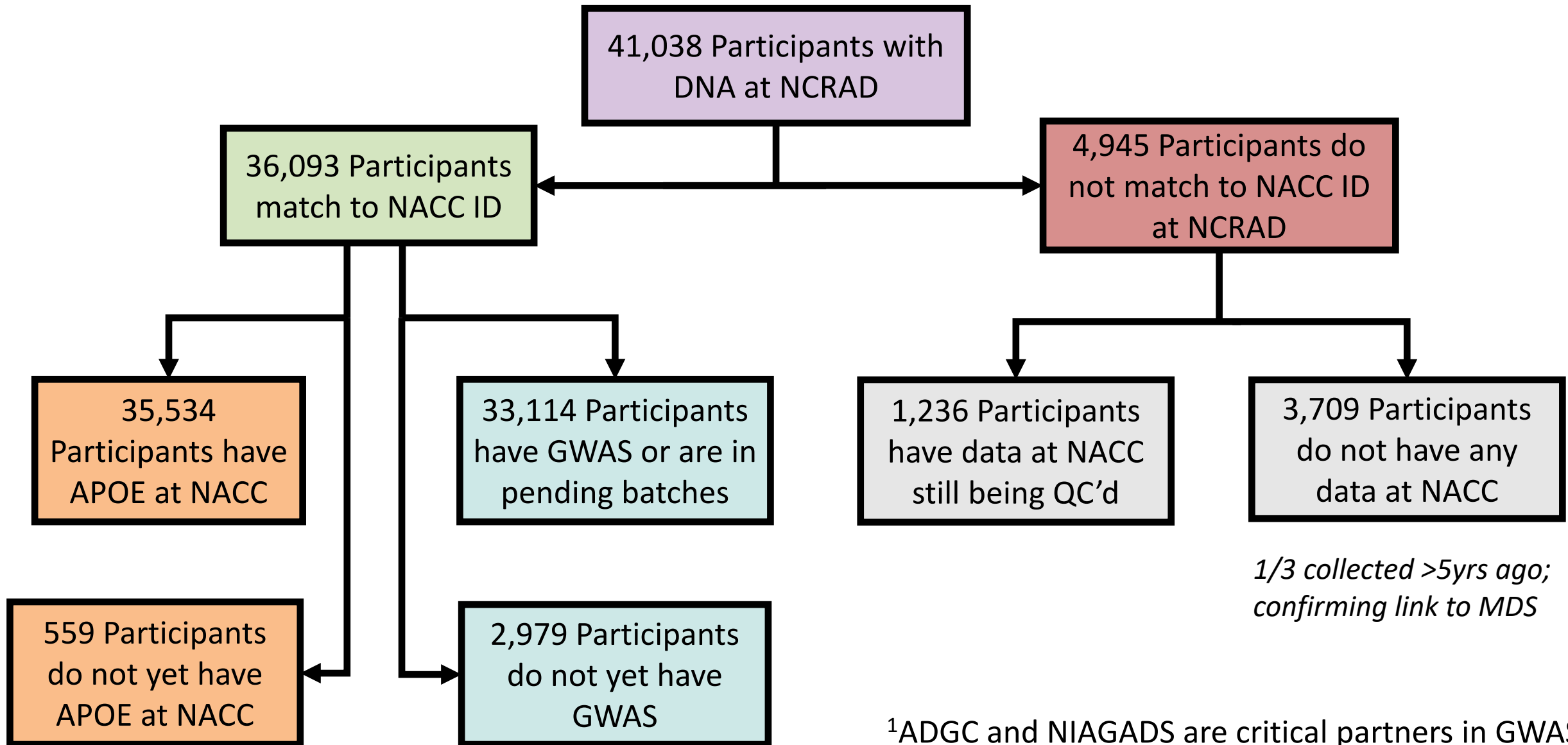
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NCRAD website: ncrad.org

Benefits of the NCRAD and ADRC Collaboration¹



Alzheimer Disease Center Fluid Biomarker Initiative (ADCFB)

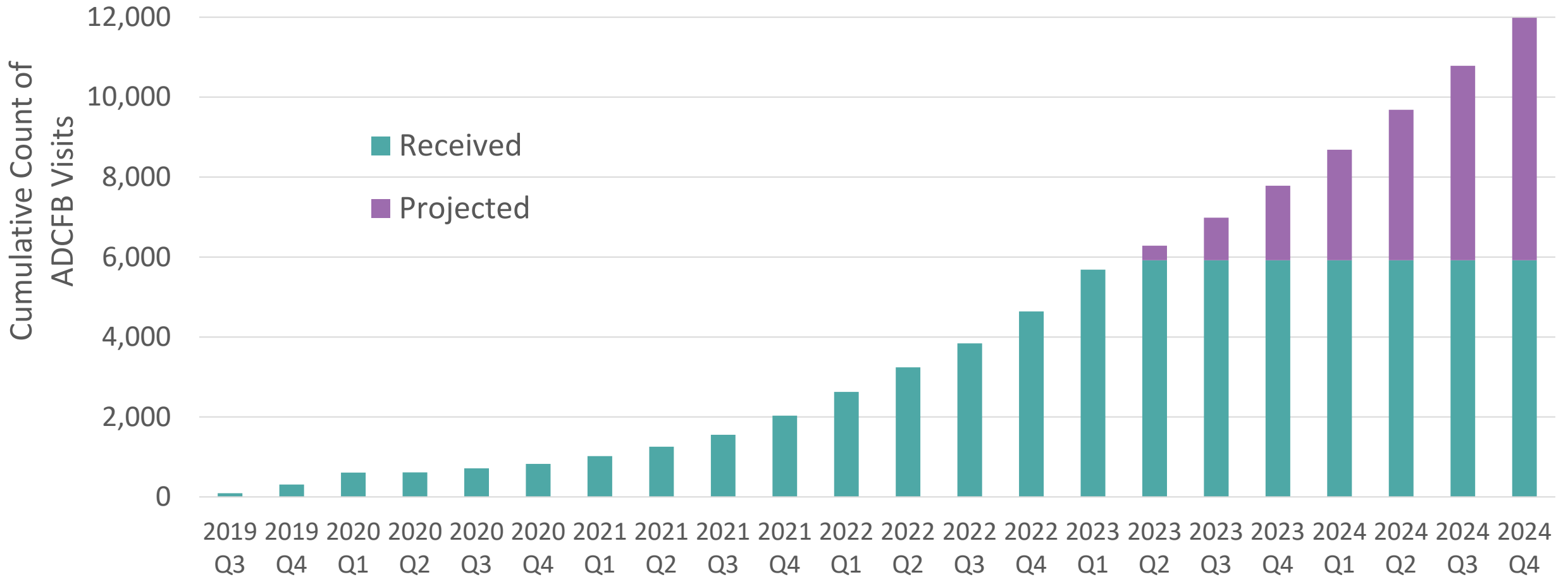
- Blood-only initiative from the well characterized ADRC participants
 - DNA, RNA, plasma, serum, PBMCs
- These samples support new research discoveries
- All data generated from ADRC samples at NCRAD must be shared with the research community

Count of Unique ADRC Participants with each ADCFB Sample Type by Site¹

Study Site	BUFFY COAT (DNA)	CSF ²	PBMC	PLASMA	RNA	SERUM
Alabama	60	0	61	60	0	0
Arizona	881	47	163	881	168	173
Boston	242	0	232	242	75	76
Emory	12	0	0	12	0	0
Indiana	346	0	9	346	0	0
Kansas	135	0	0	135	0	0
Mass Gen	141	0	0	141	0	0
Michigan	39	0	44	39	21	26
Nevada	98	0	0	98	0	0
New Mexico	40	0	0	40	0	0
New York	406	0	91	406	0	1
Oregon	68	0	61	68	41	41
Pittsburgh	443	0	44	443	59	60
South Texas	153	2	0	153	0	0
UC Irvine	16	0	1	16	0	0
UCSD	360	0	0	360	0	0
UCSF	0	0	10	0	0	0
USC	35	0	31	35	0	0
UTSW	50	0	47	50	47	48
Vanderbilt	100	0	113	100	0	0
Wake Forest	186	0	4	186	3	4
Wash U	50	0	0	50	0	0
Wisconsin	356	0	37	356	38	39
Yale	360	22	23	360	25	25
Totals	4,577	71	971	4,577	477	493

ADCFB is a blood-based initiative. At a minimum, sites had to contribute DNA and plasma. They could also contribute PBMCs, RNA and Serum. ¹Sample receipt through 04/21/23; ²Three sites asked if they could also contribute CSF.

ADCFB Sample Projections



By Q4 2024, NCRAD is projected to have plasma from
nearly 12,000 ADRC visits!

Count of Unique ADRC Participants with non-DNA Sample Types by Site¹

Study Site	CSF	PBMC	Plasma
Kansas	0	0	93 ²
Mayo	0	18	101
South Texas	3	0	45
UC Irvine	0	67	0
UCSF	0	332	0
USC	0	0	302
Wake Forest	0	0	641

¹Samples collected without following ADCFB protocol;

²Platelet-free plasma

NCRAD Biomarker Assay Laboratory (BAL)

- Lab offers qualified, commercially available assays
 - Internal qualifications
 - Evaluates precision, dilutional linearity, parallelism, and spike recovery
 - Lot-to-Lot bridging
 - Ensures comparability between studies and lots
- Equipment
 - Quanterix HD-X
 - Utilizes Quanterix Simoa HD-X kits
 - Transitioning to Lumipulse G1200 for Abeta assays fall 2023
 - Qualifying CSF Abeta 40 and 42 and pTau 181 assays this summer
- Jeff giving NCRAD Biomarker Lab Update tomorrow at 3:35pm in the Fluid Biomarker Working Group Meeting



Jeff Dage, PhD



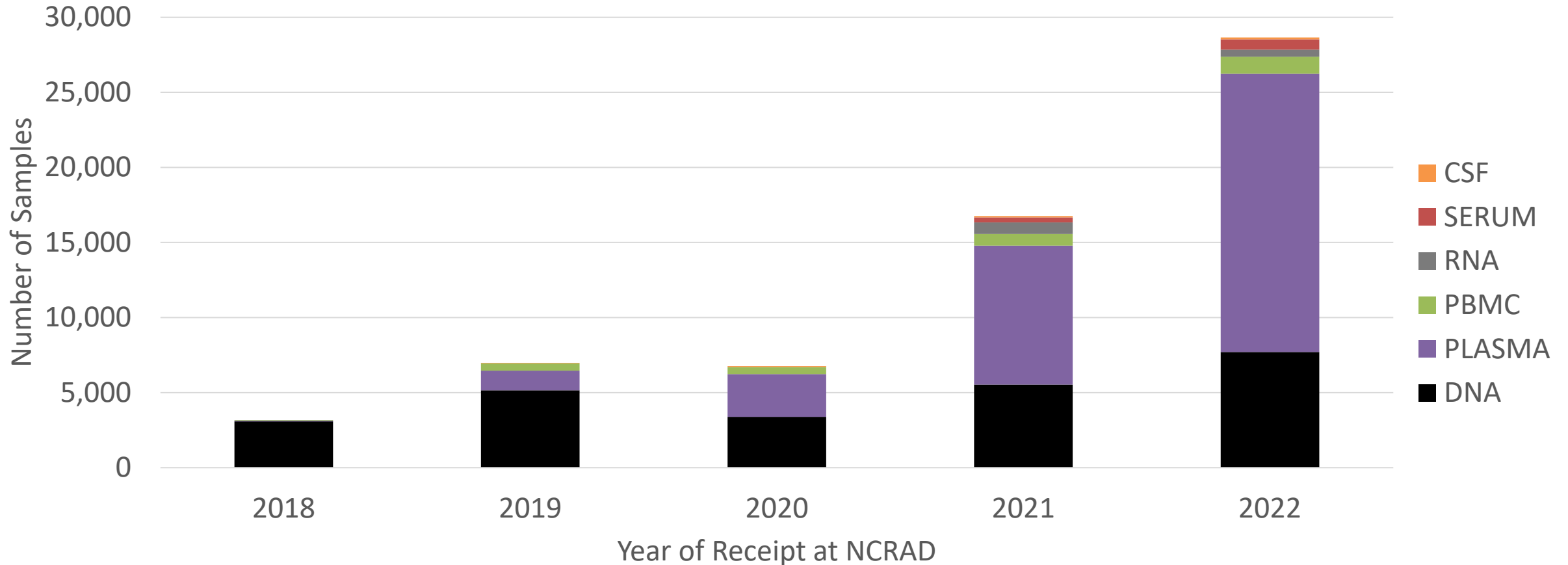
Kristen Russ, PhD

NCRAD Biomarker Assay Laboratory

- Currently plasma biomarker assays have been run on **2,779** unique ADRC participants at **3,015** unique visits!
 - Assays include Quanterix HD-X P-tau 181, Neurology 4-Plex E (GFAP/ NfL/ Abeta 40/ Abeta 42)
 - 1,176 additional visits run in Round 2
 - 3 new centers received BAL data in Round 2
 - 19 centers have received BAL biomarker data to date
 - Data from the first two batches has been returned to the ADRCs via NACC
 - Samples will continue to be run on a quarterly basis
 - Data is submitted to NACC for return to each contributing center

BAL can also run non-ADRC samples: [Request a quote](#) by completing the survey on the NCRAD website (ncrad.org)

ADRC Samples Received at NCRAD 2018-2022



- **Since 1/1/2018:** 79 distributions to 28 unique investigators
 - ADCFB specifically: 10 investigators and 1,615 samples
- **Pending distributions:** 20 distributions to 18 unique investigators
 - 13 distributions are specific to ADCFB

Questions...

NCRAD website: ncrad.org