September 2022

New NCRAD ADRC Coordinator!

NCRAD would like to introduce our new coordinator that is now working with the ADRCs, Stephanie Steidel. Stephanie began working in our lab in 2018 and transitioned to the coordinating side of our department back in 2021. We will be transitioning her into this role over the next few months, and she will become your new primary contact here at NCRAD. If you need to contact Stephanie directly, her email address is ssteidel@iu.edu.

Kaci Lacy is now a NCRAD Project Manager. She is still on the NCRAD team and will be working closely with Stephanie going forward. Please email lacy@iu.edu with any questions.

NCRAD is Looking for Plasma Samples!

With the establishment of the Biomarker Assay Laboratory (BAL), NCRAD has expanded its services to include processing of well-established fluid-based biomarkers and is providing more support to research studies. The goal is to ensure standardized processing and reliable research biomarker results. This approach allows for longitudinal quality monitoring and consistent delivery of results over time, as well as the opportunity for cross-laboratory comparability studies. The key biomarker assays currently available include:

<table>
<thead>
<tr>
<th>Assay Kits</th>
<th>Platform</th>
<th>Biomarkers</th>
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</thead>
<tbody>
<tr>
<td>NF-Light Advantage Kit</td>
<td>Quanterix Simoa HD-X</td>
<td>NfL</td>
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<tr>
<td>Ptau 181 v2 Advantage Kit</td>
<td>Quanterix Simoa HD-X</td>
<td>Ptau 181</td>
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<tr>
<td>Neurology 2-Plex B (N2PB)</td>
<td>Quanterix Simoa HD-X</td>
<td>NfL, GFAP</td>
</tr>
<tr>
<td>Neurology 4-Plex E (N4PE)</td>
<td>Quanterix Simoa HD-X</td>
<td>NfL, GFAP, Abeta 40, Abeta 42</td>
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</tbody>
</table>

All assays processed at the BAL provide research-based results only that are returned to the contributing center.

While plasma samples collected through the Alzheimer’s Disease Centers Fluid Biomarker (ADCFB) Initiative will routinely have biomarker data generated, we know that centers may have other plasma samples stored locally. **If you have previously collected plasma samples or are interested in prospectively collecting plasma samples at your center, you may request a quote and/or letter of support for the above assays through NCRAD.** Please complete the following form. For more information on the BAL, please visit our website here and contact the BAL Coordinator, Clairisa Stayton (cbstayto@iu.edu), with any questions.

Globally Unique Identifiers (GUIDs)

Some ADRCs are generating and sending NCRAD samples with Globally Unique Identifiers (GUIDs). GUIDs are generated by the Biomedical Research Informatics Computing System (BRICS) platform’s centralized NIA/NINDS portal. The same GUID will be assigned to subjects that participate in both NIA and NINDS studies, allowing for data to be associated with a particular subject without exposing any protected health information (PHI). This reduces redundant analyses and maximizes the amount of information that can be gathered. We encourage all ADRCs to begin generating and sending GUIDs to NCRAD.

NCRAD APOE Data at NACC

As a reminder, NCRAD now performs APOE genotyping internally, periodically sending these data to NACC. To obtain the most recent APOE data, visit the NACC website here, 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 may have generated. Please notify Stephanie Steidel (ssteidel@iu.edu) and Kaci Lacy (lacy@iu.edu) if you have any questions or find any discrepancies.

**Key for APOE results on NACC site**
1=e3/e3  4=e4/e4  9=missing/unknown/
2=e3/e4  5=e2/e4  not assessed
3=e2/e3  6=e2/e2
The latest ADSP whole-genome sequencing dataset and harmonized phenotypes have been released

NIAGADS released the latest version of whole genome sequencing (WGS) data from the Alzheimer’s Disease Sequencing Project (ADSP), now available through the Data Sharing Service (DSS).

This data release includes: 1) CRAMs, gVCFs, and phenotypes for 19,456 new genomes called by the Genome Center for Alzheimer’s Disease (GCAD) using VCPA1.1, 2) R4 joint genotype called preview project level VCF containing 36,361 genomes, and 3) the first release of harmonized phenotypes from the ADSP Phenotype Harmonization Consortium (ADSP-PHC), including cognition, biomarker, and neuropathology data.

More information can be found on the dataset page NG00067 - ADSP Umbrella. For information on how to submit a Data Access Request, please visit our application instructions page.

Within the latest R4 36k WGS dataset, 11,195 samples come from the Alzheimer’s Disease Research Centers! Centers can request access to the sequencing data for their own samples through the completion of a Data Access Agreement (DAA) with UPenn. A link to the DAA template can be found on the ADRC Sequencing Return Instructions page.

Keep in touch!

Stay up to date with the latest news from NIAGADS and the Penn Neurodegeneration Genomics Center (PNGC) by checking out our latest blog posts! The blog features information about new research, data releases and other interesting topics.