Overview
The first data freeze for the Alzheimer’s Disease Sequencing Project Phenotype Harmonization Consortium (ADSP-PHC) was released in 2022. The project’s scope includes longitudinal harmonization for neuroimaging, cognitive, biomarker, and neuropathology data across the many cohort studies of aging included in the ADSP. This workshop will provide attendees with a didactic explaining how data are harmonized with three domain examples, followed by a thorough presentation on the wealth of data being released, including a walkthrough on accessing harmonized data. An in-depth exploration of the cognitive data with a hands-on application of longitudinal cognitive phenotypes will be facilitated by leaders in the field to allow participants to analyze data from one of the cohorts.

Through a combination of didactics and interactive components, attendees will have the opportunity to explore data availability and discuss the harmonization approaches and the application of harmonized endophenotype data with hands-on support from recognized experts across multiple ADSP-PHC domains. The workshop will conclude with a Q&A session to allow attendees to further engage and enhance these approaches.

Organizing Committee
- Paul Crane, University of Washington Memory & Brain Wellness Center, United States
- Mike Cuccaro, Hussman Institute for Human Genomics, United States
- Timothy J. Hohman, Vanderbilt Alzheimer’s Disease Research Center, United States

Speakers
- Timothy J. Hohman, Ph.D., Vanderbilt Alzheimer’s Disease Research Center, United States
- Paul Crane, M.D., MPH, University of Washington Memory & Brain Wellness Center
- Shubhabrata “Joey” Mukherjee, Ph.D., M.S., University of Washington, School of Medicine
- Seo-Eun Choi, Ph.D., University of Washington, School of Medicine
- Brandon Klinedinst, Ph.D., M.S., University of Washington, School of Medicine
Target Audience

Participants who join this workshop will learn new techniques to apply to their own data harmonization problems, gain access to harmonized data resources to accelerate their current research, and learn some techniques to apply longitudinal data analysis with widely available AD data resources to increase their statistical power.

Learning Objectives

- A basic understanding of at least two statistical harmonization approaches.
- How to access harmonized data via the NIA Genetics of Alzheimer’s Disease Data Storage Site (NIAGADS).
- Application of longitudinal harmonized cognitive data to address individual research questions.

Registration

Pre-conferences are offered for in-person attendance only. Preconferences require a separate registration fee in addition to AAIC full conference registration, or they may be purchased as stand-alone events.

Before attending, attendees must watch the ADSP Basics of Data Harmonization webinar (either live on April 20 or on-demand in May) to cover preliminary information regarding the ADSP-PHC.

Agenda

<table>
<thead>
<tr>
<th>Time</th>
<th>Session Details</th>
<th>Speaker and Moderators</th>
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<tbody>
<tr>
<td>noon-1 p.m.</td>
<td>Lunch</td>
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<tr>
<td>1-1:30 p.m.</td>
<td>Didactics</td>
<td>Speaker: Timothy J. Hohman, Ph.D.</td>
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<td>Dr. Tim Hohman (ADSP-PHC MPI) will provide an overview of data harmonization, specific to cognition, fluid biomarkers, and neuropathology.</td>
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<tr>
<td>Time</td>
<td>Topic</td>
<td>Speakers</td>
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<td>1:30-1:50 p.m</td>
<td>Interactive Walkthrough of Available Data Resources</td>
<td>Dr. Tim Hohman will walk attendees through available harmonized data resources to familiarize early-career researchers with these resources that can be leveraged (NIAGADS, ADSP-PHC Data Explorer).</td>
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<tr>
<td>1:50-3:20 p.m</td>
<td>Exploration and Application of Harmonized Cognitive Data</td>
<td>Dr. Paul Crane (ADSP-PHC Cognitive Harmonization Domain Lead) will lead a hands-on workshop focused on applying harmonized longitudinal data to attendees’ research questions.</td>
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<td>3:20-4 p.m.</td>
<td>Q&amp;A Panel Discussion</td>
<td>Time will be provided at the end of the workshop for attendees to engage with ADSP-PHC Investigators through a Q&amp;A session.</td>
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Timothy J. Hohman, Ph.D.

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