ADNI Biomarker Core

Biomarker Core News

Below is a brief summary of dates of CSF biomarker analyses run as batches of samples using the Luminex xMAP platform and Innogenetics INNO-BIA AlzBio3 immunoassay reagents. Normalization of CSF biomarker data between results of 2007 and 2008 have been obtained using a statistical approach, resulting in a procedure to maintain lot-to-lot consistency within clinical studies. In addition, during the further review of the $pTau_{181p}$ data a subset of CSF samples required quaranteening all $pTau_{181p}$ data from the late 2008 batch run. The normalization applies to all t-tau, $A\beta_{1-42}$ and $pTau_{181p}$ results, with the exception of the subset of $pTau_{181p}$ results that require a special correction procedure that is in the process of being completed. That specific subset of data will be uploaded in the near future.

Batch runs of ADNI CSF samples:

COLLECTIONS

1. BASELINE CSFs were collected through early September 2007
2. YR1 CSFs collected through late September 2008
3. 24 month and 36 month sample collections-still ongoing

BIOMARKER BATCH TESTING

1. BASELINE CSFs, batch tested Nov-Dec 2007, uploaded on ADNI website: $A\beta_{1-42}$, t-tau, $pTau_{181p}$ data early 2008, THIS IS A FINAL DATASET (REPORTED in Annals of Neurology, 2009). Data were reported on 410 subjects as described in the Annals of Neurology publication (Cerebrospinal fluid biomarker signature in Alzheimer's Disease Neuroimaging Initiative subjects. Shaw LM, Vanderstichele H, Knapik-Czajka M, Clark C, Aisen PS, Petersen RC, Blennow K, Soares H, Simon A, Lewczuk P, Dean R, Siemers E, Potter W, Lee VM-Y, Trojanowski JQ, Annals of Neurology 2009; available on the publisher's website).
2. BASELINE, YR1 and 24 month samples batch tested Nov-Dec 2008 (Included 59 24 month CSFs), uploaded preliminary dataset Feb 2009, without $pTau_{181p}$, and need for "bridge" to 2007 data. We will soon follow up with a replacement upload of the $A\beta_{1-42}$, and t-tau data following statistical normalization "bridging" data collected using different lot numbers of Innogenetics research reagents.
3. Retested all 91 sets of "triplet" CSF samples (BASELINE, YR1 and 24 month CSFs; each sample done using standard protocol and a new protocol to help deal with ptau), Feb-March 2009, analyses of these data are ongoing.
4. In addition, studies were done to bridge between single analyte testing and multi-analyte testing using a modified test procedure requiring lower volumes of CSF. 91 sets of "triplet" CSF samples (BASELINE, YR1 and YR2) were tested using the standard protocol and a new test procedure to improve test accuracy for CSF p-Tau181p, Feb-March 2009. Data analyses of this is on-going.

PS: If you have other questions about the work of the Biomarker Core, it is likely they have been asked by others too, and we have sought to make it easier for investigators to find answers to their questions by checking the ADNI website where we have posted answers to many FAQs. Thus, if you log into the ucla/loni/adni website and go into the data base you can review answers to FAQs that already have been addressed.