PPMI α-synuclein interlaboratory study

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PPMI $\alpha$-synuclein interlaboratory study

- **Purpose**: evaluate precision of 4 immunoassays, including within-run and between-run precision for each participating center
- **Samples**:
  - 12 aliquots each for 7 patient CSF samples
  - 12 aliquots each for 3 $\alpha$-SYN standards (rPeptide synthetic $\alpha$-SYN)
- **Analyses**: each center ran these samples together with a series of standards, prepared at each center, all in quadruplicate
- **Statistics**:
  - Statistical analyses will characterize for each center the precision within-run, between-run and total
- **Lab ID**: each laboratory was be assigned a letter, A, B, C or D, randomly assigned, to preserve anonymity. Only the individual laboratory will know their id letter.
Patient CSF sample aliquots provided by Britt Mollenhauer; distributed by UPenn biomarker laboratory in sets of 3 aliquots per patient sample.

α-SYN QC sample aliquots provided by Eugeen Vanmechelin
Each patient CSF sample and control sample was run in quadruplicate, in 3 different runs.
Data points for each run for each of 4 participating laboratories for 7 patient CSF samples.
Mixed-model precision analyses for Labs A, B & C
Percent difference from the mean value for 7 CSFs within each center.
Precision performance for 3 α-SYN quality control samples
Summary

• Databank with 848 analytical results has been prepared at UPenn and, independently, at UIowa
• Analyses of data is underway with plans for review of the data by teleconference within the next month
• The results of the study whose primary purpose is to assess the precision performance of 4 immunoassays using patient CSF samples and α-SYN quality control samples will be summarized and a report generated for upload on the PPMI web site