PARKINSON'S PROGRESSION MARKERS INITIATIVE

Play a Part in Parkinson's Research

PPMI CSF Reference Pools

PPMI Biorepository Core – Indiana University School of Medicine

PPMI Reference Pools

It is important that reference pools of CSF, plasma, serum, and RNA are available to investigators of approved PPMI distributions. The goal of these pools is not to provide the full range of potential biomarker values. Rather, the reference pools are designed to be used across experiments to adjust for assay variation. Reference pools of varying size are created to meet differing needs of investigators.

Method

1. PPMI CSF Reference Pools 1 – PD and HC

The PPMI Biorepository Core at Indiana University created two CSF reference pools, one generated from CSF samples from PD subjects and the other from CSF samples from HC subjects. Only aliquots from the PPMI Biorepository Core at Indiana University were used for this reference pool experiment.

CSF aliquots with ≤ 100µl volume were preferentially selected from samples from PD and HC subjects. Aliquots of this volume had been generated by PPMI sites and the PPMI Biorepository Core through several mechanisms: 1) residual aliquots at the time of sample collection and site aliquoting; 2) residual aliquots generated at the time of subaliquoting at the PPMI Biorepository Core; and 3) previous subaliquoting by the PPMI Biorepositories for 100µl volumes. Any visits with ≤ 1000µl CSF remaining were excluded from this reference pool. A total of 2234 PD CSF aliquots and 2045 HC aliquots were thawed and pooled within one day to create these pools.

The CSF pools were designed to combine a large number of CSF aliquots from PD and HC subjects. Each reference pool aliquot would have a volume of 250 µl. The goal of this CSF reference pool design was to obtain 750 PD CSF reference aliquots and 750 HC CSF reference aliquots. This large number of aliquots will be necessary for the planned CSF biomarker assays that will ultimately utilize a CSF sample from every PPMI subject visit.

A total of 674 PD CSF aliquots and 652 HC aliquots were produced. Each 250 µl reference pool aliquot was labeled and sequentially numbered.

2. PPMI CSF Reference Pools 2 – PD and HC

The PPMI Biorepository Core at Indiana University created a second set of two CSF reference pools, one generated from CSF samples from PD subjects and the other from CSF samples from HC subjects. Only aliquots from the PPMI Biorepository Core at Indiana University were used for this reference pool experiment.

CSF aliquots with ≤ 100µl volume were preferentially selected from samples from PD and HC subjects (See Appendices D and E). Aliquots of this volume had been generated by PPMI sites and the PPMI Biorepository Core through several mechanisms: 1) residual aliquots at the time of sample collection and site aliquoting; 2) residual aliquots generated at the time of subaliquoting at the PPMI Biorepository Core; and 3) previous subaliquoting by the PPMI Biorepositories for 100µl volumes. Any visits with ≤ 1000µl CSF remaining were excluded from this reference pool. A total of 1425 PD CSF aliquots and 1400 HC aliquots were thawed and pooled within one day to create these pools.

The CSF pools were designed to combine a large number of CSF aliquots from PD and HC subjects. Each reference pool aliquot would have a volume of 250 µl. The goal of this CSF reference pool design was to obtain 550 PD CSF reference aliquots and 550 HC CSF reference aliquots.

A total of 499 PD CSF aliquots and 480 HC aliquots were produced. Each 250 µl reference pool aliquot was labeled and sequentially numbered.

References

See also, Reference Pool Creation SOP, Appendix A

About the Authors

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