

Play a Part in Parkinson's Research

PPMI Plasma 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 Plasma Reference Pools 1 – PD and HC

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

Plasma aliquots with 500µl and <200µl 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 500µl volumes. Any visits with $\leq 1500\mu l$ plasma remaining were excluded from this reference pool. A total of 343 PD plasma aliquots and 386 HC aliquots were thawed and pooled within one day to create these pools.

The plasma pools were designed to combine a large number of plasma aliquots from PD and HC subjects. Each reference pool aliquot would have a volume of 200µl. The goal of this plasma reference pool design was to obtain 300 PD plasma reference aliquots and 300 HC plasma reference aliquots. This number of aliquots will be necessary for any future plasma distribution, assuming a comprehensive plasma distribution that would utilize a plasma sample from every PPMI subject visit.

A total of 272 PD plasma aliquots and 315 HC aliquots were produced. Each 200 µl reference pool aliquot was labeled and sequentially numbered.



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2. PPMI Plasma Reference Pools 2 – PD and HC

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

Plasma aliquots with <200 μ l 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 and 2) residual aliquots generated at the time of subaliquoting at the PPMI Biorepository Core. Any visits with $\leq 1500\mu$ l plasma remaining were excluded from this reference pool. A total of 388 PD plasma aliquots and 520 HC aliquots were thawed and pooled within one day to create these pools.

The plasma pools were designed to combine a large number of plasma aliquots from PD and HC subjects. Each reference pool aliquot would have a volume of 200µl. The goal of this plasma reference pool design was to obtain 300 PD plasma reference aliquots and 300 HC plasma reference aliquots. This number of aliquots will be necessary for any future plasma distribution, assuming a comprehensive plasma distribution that would utilize a plasma sample from every PPMI subject visit.

A total of 348 PD plasma aliquots and 360 HC aliquots were produced. Each 200 μ l reference pool aliquot was labeled and sequentially numbered.

References

See also, Reference Pool Creation SOP, Appendix A

About the Authors

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