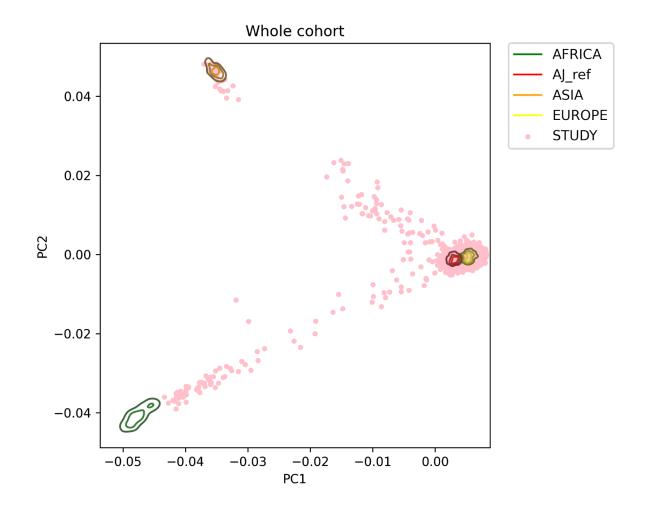
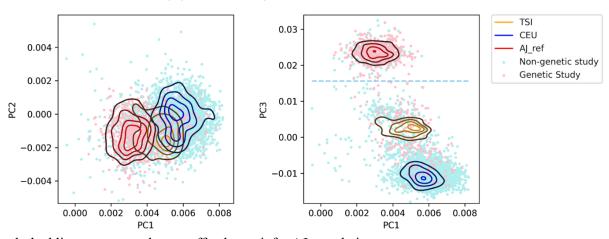
Supplemental Figure 1. Population plots with references populations



Supplemental Figure 2. Genetic PC plots of European ancestry individuals

Sub-population of European descendents and references



Blue dashed line represents the cut-off value to infer AJ population AJ_ref, Ashkenazi Jewish reference panel; CEU Northern Europeans from Utah; TSI, Toscani from Italy. Genetic study, genetically enriched cohorts; Non-genetic study, not genetically enriched cohorts.

Supplemental Table. AJ percentage among Europeans

| Cohort | Category | N of Europeans | AJ % |
|-----------------------|------------|----------------|------|
| BioFIND | | | |
| | HC | 70 | 14.3 |
| | PD | 99 | 16.2 |
| HBS | | | |
| | HC | 227 | 11.9 |
| | PD | 640 | 12.3 |
| PDBP | | | |
| | HC | 470 | 3.2 |
| | PD | 856 | 3.2 |
| PPMI Original Cohort | | | |
| | HC | 190 | 11.1 |
| | PD | 408 | 5.4 |
| | SWEDD | 61 | 6.6 |
| PPMI Prodromal Cohort | | | |
| | Prodromals | 61 | 3.3 |
| PPMI Genetic Cohort | | | |
| | HC_GC | 210 | 72.4 |
| | PD_GC | 178 | 53.9 |
| PPMI Genetic Registry | | | |
| | HC_GR | 164 | 67.7 |
| | PD_GR | 125 | 85.6 |
| All | | 3759 | 18.3 |

AJ, Ashkenazi Jewish; BF, BioFIND; PD, PDBP; PP, PPMI; HC, Healthy controls; PD, Parkinson's disease; GC, Genetic Cohort; GR, Genetic Registry.

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| | | 1 6 |