## Supplementary Table 1. Patient characteristics

| Project ID | Category       | PMI | Age at death | Sex  | R    | Risk     | CD4 Plasma vl | CSF vl | Brain pathology               |
|------------|----------------|-----|--------------|------|------|----------|---------------|--------|------------------------------|
| 01640      | Uninfected     | 19  | 63           | M    | H    | -        | -             | -      | normal                       |
| 01923      | Uninfected     | 6.5 | 61           | M    | H    | -        | -             | -      | Abn-Focal Infarct            |
| 00039      | HIV            | 8   | 46           | M    | W    | Hom-sx   | 15,167,143    | 11,908 | HIVE                        |
| 00284      | HIV            | 4   | 36           | M    | H    | Hom-sx   | 16,195,269    | -      | HIVE                        |
| 00488      | HIV            | 5.5 | 42           | M    | W    | Hom-sx   | 99,6,940      | 750,000 | HIVE, MGNE                  |
| 00918      | HIV            | 13  | 25           | M    | W    | -        | -             | -      | HIVE                        |
| 01212      | HIV            | 5   | 37           | M    | W    | Hom-sx   | 218, -        | -      | HIVE                        |
| 01231      | HIV            | 6   | 46           | M    | B    | Het-sx   | 178,15,001    | 116,413 | HIVE                        |
| 01555      | HIV            | 48  | 47           | M    | W    | Hom-sx   | 9,210,000     | -      | HIVE                        |
| 01580      | HIV            | 4   | 50           | M    | H    | IVDU     | 1,58,419      | -      | HIVE                        |
| 01598      | HIV            | 27  | 45           | F    | B    | IVDU     | 6, -          | -      | HIVE                        |
| 01994      | HIV            | 31  | 37           | M    | W    | Hom-sx, IVDU | -        | -      | 750,000 HIVE                |
| 02390      | HIV            | 17  | 63           | F    | B    | Het-sx   | 25,730,085    | -      | HIVE                        |
| 00006      | Virally Suppressed | 11.5 | 62            | F    | B    | Het-sx   | 392, 50       | 50      | ischemic                    |
| 00009      | Virally Suppressed | 11  | 50           | F    | W    | Het-sx, IVDU | 791, 50    | 50      | Abn-unspecified              |
| 00522      | Virally Suppressed | 24  | 66           | M    | W    | Hom-sx   | 465, 50       | 50      | normal                      |
| 00630      | Virally Suppressed | 18.5 | 61           | M    | B    | Het-sx, IVDU | 271, 50    | 50      | Abn-unspecified              |
| 00658      | Virally Suppressed | 6   | 52           | M    | W    | Hom-sx   | 78, 50        | 50      | normal                      |
| 00697      | Virally Suppressed | 21  | 66           | M    | W    | Hom-sx   | 798, 50       | -      | Abn-Focal Infarct            |
| 00699      | Virally Suppressed | 46.5 | 59           | M    | B    | Hom-sx   | 491, 50       | -      | ischemic                    |
| 00719      | Virally Suppressed | 20  | 44           | M    | B    | IVDU     | 219, 50       | 50      | ischemic                    |
| 01374      | Virally Suppressed | 22.5 | 54           | M    | W    | Hom-sx   | 491, 85       | 50      | Leukoencephalopathy          |
| 01495      | Virally Suppressed | 7   | 39           | M    | B    | Het-sx   | 112, 40       | -      | ischemic                    |
| 01878      | Virally Suppressed | 8.5  | 63           | M    | W    | Hom-sx   | 133, 50       | 50      | ischemic                    |
| 01986      | Virally Suppressed | 8.5  | 69           | M    | W    | Hom-sx   | 355, 20       | 60      | ischemic                    |
| 02035      | Virally Suppressed | 18.23 | 50           | M    | H    | Hom-sx   | 300, 20       | -      | Abn-Alzheimer/Focal Infarct |
| 02087      | Virally Suppressed | 14.5 | 51           | M    | W    | Hom-sx   | 223, 50       | 139     | Abn-ChronicHTN              |
| 02104      | Virally Suppressed | 6   | 47           | M    | H    | Hom-sx   | 61, 48        | -      | Abn-Focal Infarct            |
| 02398      | Virally Suppressed | 4.5  | 64           | M    | B    | Hom-sx   | 1,043, 40     | na      | Abn-Focal Infarct            |
Supplementary Table 2a. Proviral (P) and integrated (I) HIV-1 DNA quantitated by ddPCR in the brain tissues of HIV-infected individuals

| ProjID # | Group          | BG   | Brain area | CC  |
|----------|----------------|------|------------|-----|
|          |                | P:   |            | I:  |
|          |                | ND:  |            | ND: |
|          |                | I:   |            | ND: |

BG: basal ganglia, FWM: frontal white matter, CC: corpus callosum
ND, not detected
Cells greyed out indicate no tissues available.
Supplementary Table 2b. Proviral (P) and 2LTR (2) HIV-1 DNA quantitated by RT-qPCR

| ProjID # | Group             | BG     | Brain area | CC     |
|---------|-------------------|--------|------------|--------|
|         |                   |        | FWM        | CC     |
| 00284   | HIVE              | P: 2.58E+03 2: ND | P: 2.14E+05 2: 1.36E+03 |        |
| 00918   | HIVE              |        | P: 1.66E+04 2: ND |        |
| 01212   | HIVE              | P: ND 2: ND | P: ND 2: ND |        |
| 01231   | HIVE              | P: ND 2: ND |        |        |
| 01555   | HIVE              | P: 1.12E+05 2: 3.58E+02 | P: 4.58E+06 2: ND | P: 6.16E+05 2: 1.86E+02 |
| 01580   | HIVE              |        | P: 1.53E+05 2: 1.97E+03 |        |
| 01598   | HIVE              |        | P: 4.00E+05 2: 2.20E+01 |        |
| 01994   | HIVE              |        | P: 7.02E+05 2: 1.06E+02 |        |
| 02390   | HIVE              |        | P: 3.97E+05 2: 1.45E+02 |        |
| 00006   | Virally Suppressed| P: ND 2: ND | P: ND 2: ND |        |
| 00009   | Virally Suppressed|        | P: ND 2: ND |        |
| 00522   | Virally Suppressed| P: ND 2: ND |        |        |
| 00630   | Virally Suppressed| P: ND 2: ND |        |        |
| 00697   | Virally Suppressed| P: ND 2: ND |        |        |
| 00699   | Virally Suppressed| P: ND 2: ND |        |        |
| 00719   | Virally Suppressed| P: ND 2: ND |        |        |
| 01495   | Virally Suppressed|        | P: ND 2: ND |        |
| 01878   | Virally Suppressed| P: ND 2: ND |        |        |
| 02035   | Virally Suppressed| P: ND 2: ND |        |        |
| 02087   | Virally Suppressed|        | P: ND 2: ND |        |
| 02398   | Virally Suppressed|        | P: ND 2: ND |        |

BG: basal ganglia, FWM: frontal white matter, CC: corpus callosum
ND, not detected
Cells greyed out indicate no tissues available.