

Supplemental digital content 1: Characteristics of study cohort vs. HIV-positive, ART-naive comparator cohort

| | Study cohort (n=112) | Comparator cohort (n=27) | p-value |
|----------------------------|---------------------------------|-------------------------------------|----------------|
| Gender M:F (% male) | 77:35 (68.8) | 24:3 (89) | 0.062** |
| Age, years | 37.2 (30.5 – 43.0)* | 39.0 (31.0 – 46.0) | 0.643*** |
| CD4 T cell count, cells/uL | 160 (100 – 215) | 450 (330 – 550) | 0.000 |
| CD8 T cell count, cells/uL | 1,070 (660 – 1,620) | 1200 (800 – 1660) | 0.377 |
| HIV RNA, copies/mL | 140,000 (49,500 – 440,000) | 36,000 (20,000 – 160,000) | 0.007 |

p-values <0.05 in bold

* Data given as median (inter-quartile range, IQR)

** Chi square test

*** Mann-Whitney U test

Supplementary digital content 2: Marker plasma levels in analyzed cohorts

| Marker | A HIV-seronegative blood donors | A vs B** | | B HIV-positive, ART-naive comparator cohort | A vs C | | C Study cohort at baseline |
|---------|---------------------------------------|----------|-----|---|--------|-----|----------------------------------|
| | | | | | | | |
| IL-9 | 1.7 (0.0 – 25.1)* | 0.000 | ↑ | 58.5 (18.1 – 138.6) | 0.114 | (↑) | 12.7 (1.6 – 22.9) |
| IL-15 | 1.3 (0.0 – 4.4) | 0.001 | ↑ | 10.8 (4.5 – 16.8) | 0.004 | ↑ | 8.0 (2.9 – 15.5) |
| Eotaxin | 0.0 (0.0 – 62.1) | 0.016 | ↑ | 47.8 (24.8 – 103.7) | 0.113 | - | 32.7 (0.2 – 84.9) |
| GM-CSF | 0.0 (0.0 – 18.5) | 0.043 | ↓ | undetectable | 0.045 | ↑ | 8.7 (0.0 – 50.4) |
| IP-10 | 816 (597 – 1,405) | 0.000 | ↑ | 2,208 (1,308 – 4,520) | 0.000 | ↑ | 4,800 (2,622 – 8,739) |
| CCL2 | undetectable | 0.000 | ↑ | 35.3 (20.6 – 50.8) | 0.000 | ↑ | 21.0 (7.3 – 43.0) |
| MIP-1β | 51.4 (39.1 – 72.2) | 0.606 | - | 52.0 (33.1 – 66.3) | 0.223 | - | 57.1 (41.5 – 90.8) |
| RANTES | 7,430 (6,347 – 9,800) | 0.005 | ↓ | 3,950 (2,749 – 9,067) | 0.018 | ↓ | 5,246 (2,697 – 9,212) |
| PDGF | 4,423 (2,176 – 7,310) | 0.000 | ↓ | 677 (398 – 2,062) | 0.000 | ↓ | 254 (126 – 535) |
| VEGF | undetectable | 0.022 | ↑ | 3.2 (0.0 – 23.7) | 0.000 | ↑ | 13.5 (1.1 – 22.4) |
| CXCL16 | 1,851 (1,690 – 2,280) | 0.000 | ↓ | 1,104 (885.0 – 1,256) | 0.453 | - | 1,800 (1,467 – 2,436) |
| sTNFRII | 2,912 (2,590 – 3,234) | 0.000 | ↑ | 5,344 (4,376 – 6,724) | 0.000 | ↑ | 5,576 (4,430 – 6,710) |
| FasL | 56.2 (41.5 – 67.4) | 0.058 | (↑) | 82.0 (51.8 – 131.2) | 0.001 | ↑ | 88.5 (64.0 – 123.6) |
| TARC | 66.3 (30.8 – 108.4) | 0.643 | - | 66.2 (22.7 – 134.7) | 0.000 | ↑ | 303.4 (171.0 – 503.4) |
| HGF | 307.5 (185.0 – 513.0) | 0.576 | - | 292.0 (231.0 – 509.0) | 0.000 | ↑ | 641.5 (466.0 – 1,066) |
| ALCAM | 147.4 (121.7 – 159.5) | 0.004 | ↓ | 116.1 (98.0 – 133.1) | 0.002 | ↓ | 121.3 (99.2 – 141.8) |
| mCRP | 1.3 (0.5 – 2.8) | 0.000 | ↑ | 3.9 (2.4 – 6.6) | 0.000 | ↑ | 4.2 (2.0 – 7.8) |

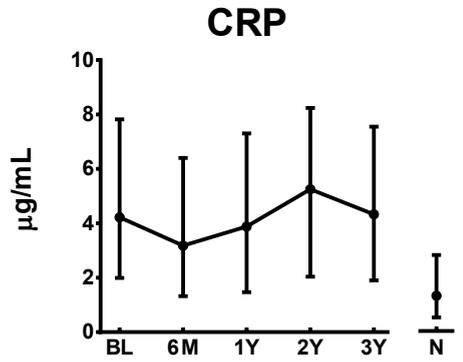
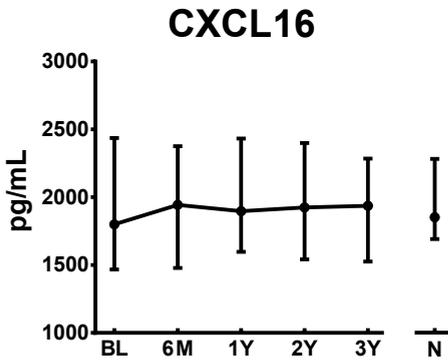
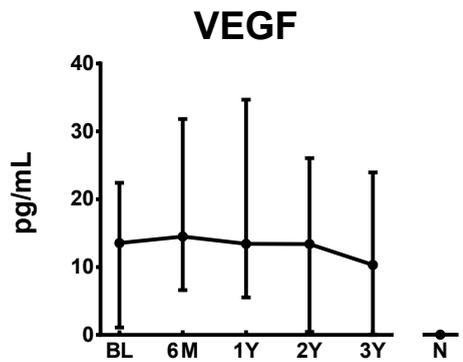
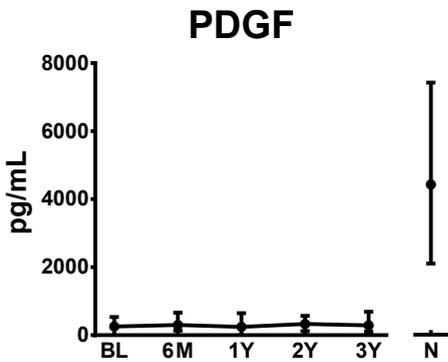
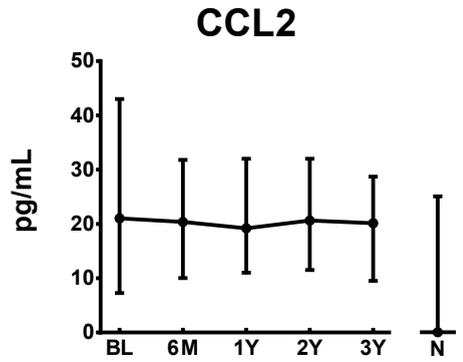
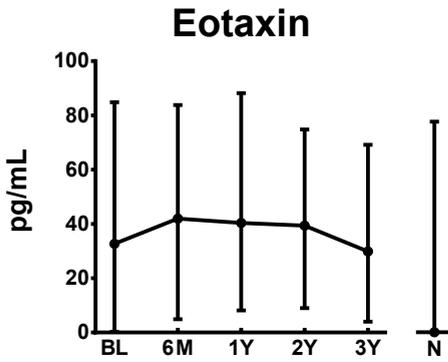
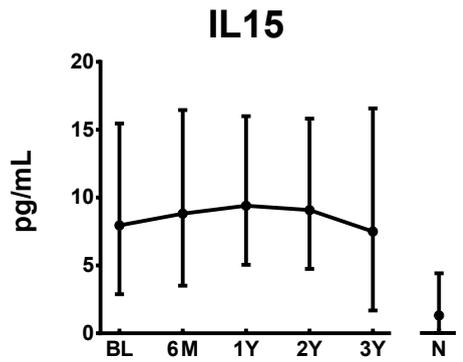
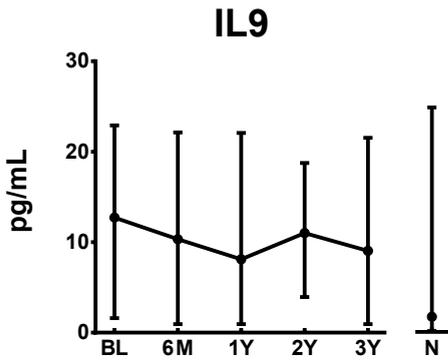
Excluded markers

| | | | | | | | |
|-----------|-----------------------|-------|-----|-----------------------|-------|-----|-----------------------|
| IL-1ra | 148.4 (109.0 – 234.7) | 0.003 | ↑ | 450 (307.0 – 695.1) | 0.000 | ↓ | 48.1 (29.6 – 88.5) |
| IL-6 | 10.7 (4.7 – 14.8) | 0.007 | ↑ | 22.8 (13.4 – 33.6) | 0.550 | - | 6.2 (4.3 – 9.4) |
| IFN-γ | 189 (59.9 – 291) | 0.001 | ↑ | 580 (271 – 1054) | 0.000 | ↓ | 21.6 (7.3 – 45.2) |
| TNF | 59.5 (33.4 – 78.1) | 0.009 | ↑ | 148.7 (77.2 – 245.1) | 0.000 | ↓ | 20.6 (13.7 – 28.5) |
| PTX3 | 1,228 (813 – 1,451) | 0.035 | (↑) | 1,631 (1,137 – 1,977) | 0.084 | (↓) | 907 (550 – 1,409) |
| OPG | 1,665 (1,307 – 2,152) | 0.071 | (↑) | 2,113 (1,585 – 2,509) | 0.096 | (↓) | 1,430 (1,052 – 2,067) |
| IL-1β | 4.0 (1.2 – 5.1) | 0.004 | ↑ | 9.1 (5.2 – 14.1) | 0.002 | ↓ | undetectable |
| IL-2 | 2.5 (0.4 – 3.5) | 0.016 | ↑ | 9.8 (1.9 – 19.3) | 0.229 | - | undetectable |
| IL-4 | 3.9 (1.5 – 5.0) | 0.004 | ↑ | 9.0 (6.2 – 17.3) | 0.000 | ↓ | undetectable |
| IL-5 | 4.8 (2.3 – 6.5) | 0.016 | ↑ | 8.8 (4.6 – 17.0) | 0.000 | ↓ | undetectable |
| IL-7 | 24.8 (9.7 – 35.6) | 0.576 | - | 34.6 (9.6 – 66.2) | 0.000 | ↓ | undetectable |
| IL-8 | 5.3 (2.9 – 8.3) | 0.000 | ↑ | 17.6 (10.7 – 29.1) | 0.711 | - | undetectable |
| IL-10 | undetectable | 0.031 | ↑ | 12.0 (3.8 – 30.6) | - | - | undetectable |
| IL-12p70 | undetectable | 0.001 | ↑ | 14.6 (4.2 – 34.7) | - | - | undetectable |
| IL-13 | undetectable | - | - | undetectable | - | ↓ | undetectable |
| IL-17 | undetectable | 0.146 | ↑ | 13.4 (0.0 – 93.4) | - | - | undetectable |
| FGF basic | 9.6 (0.0 – 34.2) | 0.454 | - | 18.7 (0.0 – 49.8) | 0.191 | ↓ | undetectable |
| G-CSF | 61.9 (28.4 – 104.4) | 0.780 | - | 60.2 (13.2 – 116.5) | 0.000 | ↓ | undetectable |
| MIP-1a | undetectable | 0.162 | - | 9.9 (5.3 – 16.1) | - | - | undetectable |

* Data given as median (inter-quartile range, IQR)

** Mann-Whitney U tests

No change on ART



Supplemental digital content 3: Plasma soluble biomarkers with no significant changes compared to pre-ART baseline (BL) levels for all study patients within the first three years of treatment (M, months; Y, years). Plasma levels in HIV-seronegative controls are denoted by N. Data are presented as medians (IQR).