**Supplemental Table 1A: Biomarkers with significant relationships in the overall linear regression models, limited to participants with undetectable HIV viral load. Coefficients (coef) and p-values are shown for each relationship. Significant covariates retained for each model are noted in column 5. Models in which biomarkers retained significance in this subgroup analysis are indicated with** \***.**

| **PFT outcome** | **Variables with significant relationships in multivariable model (n included in model)** | **coef** | **p-value** | **Covariates significantly contributing to model** |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| DLCO % predicted\* | CD25+, % of CD4+, Q4(54)\* | -0.110 | 0.02 | BMI |
|  |  |  |  |  |
| DLCO % predicted\* | CD25+, % of CD8+, Q4(54)\* | -0.118 | 0.003 | History of *Pneumocystis* pneumonia |
|  |  |  |  | BMI |
|  |  |  |  |  |
| DLCO % predicted | CD69+, % of CD57+/CD28null CD4+, Q4 (32) | -0.089 | 0.14 | None |
|  |  |  |  |  |
| DLCO % predicted | IL-6, plasma (pg/mL), Q4 (81) | -0.047 | 0.15 | Pack-years smoked |
|  |  |  |  | History of *Pneumocystis* pneumonia |
|  |  |  |  | BMI |
|  |  |  |  |  |
| DLCO % predicted\* | CRP, plasma > 1mg/L (93)\* | -0.079 | 0.001 | Pack-years smoked |
|  |  |  |  | History of *Pneumocystis* pneumonia |
|  |  |  |  | History of injection drug use |
|  |  |  |  | BMI |
|  |  |  |  |  |
| FEV1 % predicted, pre-BD | CD69+, % of CD57+/CD28null CD4+, Q4 (32) | -0.131 | 0.11 | None |
|  |  |  |  |  |
| FEV1 % predicted, pre-BD\* | CRP, plasma > 1mg/L (92)\* | -0.104 | 0.002 | History of *Pneumocystis* pneumonia |
|  |  |  |  |  |
| FEV1 % predicted, pre-BD | Telomere length (relative ratio) (79) | 0.123 | 0.15 | None |
|  |  |  |  |  |
| FEV1 % predicted, post-BD | CD69+, % of CD57+/CD28null CD4+, Q4 (32) | -0.116 | 0.16 | None |
|  |  |  |  |  |
| FEV1 % predicted, post-BD\* | CD57+/CD28null, % of CD8+(52)\* | 0.004 | 0.02 | Pack-years smoked |
|  |  |  |  |  |
| FEV1 % predicted, post-BD | IL-6, plasma (pg/mL), Q4 (82) | -0.033 | 0.43 | History of *Pneumocystis* pneumonia |
|  |  |  |  |  |
| FEV1 % predicted, post-BD\* | CRP, plasma > 1mg/L (92)\* | -0.089 | 0.006 | History of *Pneumocystis* pneumonia |
|  |  |  |  |  |

BD: bronchodilator, BMI: body mass index, CRP: C-reactive protein, DLCO: diffusing capacity for carbon monoxide, FEV1: forced expiratory volume in one second,

FVC: forced vital capacity, IL: interleukin, Q4: fourth quartile (>75th percentile)

\* signifies biomarker-PFT outcome relationships maintaining significance in the limited model

**Supplemental Table 1B: Biomarkers with significant relationships in the overall logistic models, limited to participants with undetectable HIV viral load. Odds ratios (OR) and p-values are shown for each relationship. Significant covariates retained for each model are noted in column 5.**

**Models in which biomarkers retained significance in this subgroup analysis are indicated with** \***.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **PFT outcome** | **Variables with significant relationships in multivariable model (n included in model)** | **OR** | **p-value** | **Covariates significantly contributing to model** |
|  |  |  |  |  |
| DLCO < 60% predicted\* | CD25+, % of CD4+, Q4(54)\* | 6.182 | 0.02 | None |
|  |  |  |  |  |
| DLCO < 60% predicted\* | CD25+, % of CD8+, Q4(54)\* | 7.333 | 0.006 | None |
|  |  |  |  |  |
| DLCO < 60% predicted | CD57+/CD28null, % of CD8+ (54) | 0.968 | 0.13 | None |
|  |  |  |  |  |
| DLCO < 60% predicted | IL-6, plasma (pg/mL), Q4 (81) | 2.832 | 0.08 | Pack-years smoked |
|  |  |  |  | BMI |
|  |  |  |  |  |
| DLCO < 60% predicted\* | CRP, plasma > 1mg/L (93)\* | 3.561 | 0.01 | History of injection drug use |
|  |  |  |  | BMI |
|  |  |  |  |  |
| FEV1/FVC < 70%, pre-BD\* | CD57+/CD28null, % of CD8+ (52)\* | 0.917 | 0.02 | Pack-years smoked |
|  |  |  |  | Age (per year) |
|  |  |  |  |  |
| FEV1/FVC < 70%, post-BD\* | CD57+/CD28null, % of CD8+ (52)\* | 0.916 | 0.02 | Pack-years smoked |
|  |  |  |  | Age (per year) |
|  |  |  |  |  |
| FEV1/FVC < 70%, post-BD | CRP, plasma > 1mg/L (92) | 2.073 | 0.25 | Pack-years smoked |
|  |  |  |  | Age (per year) |
|  |  |  |  |  |
| FEV1/FVC < 70%, post-BD\* | Telomere length (relative ratio) (79)\* | 0.004 | 0.003 | BMI |
|  |  |  |  |  |

BD: bronchodilator, BMI: body mass index, CRP: C-reactive protein, DLCO: diffusing capacity for carbon monoxide, FEV1: forced expiratory volume in one second,

FVC: forced vital capacity, IL: interleukin, Q4: fourth quartile (>75th percentile)

\* signifies biomarker-PFT outcome relationships maintaining significance in the limited model