SUPPLEMENTAL TABLES

Supplemental Table 1. Demographics of study population

Variable	ANCA patient n=41	HC n=70	P value
Age, yrs Median (IQR)	56 (45, 70)	36 (25, 56)	<0.0001
Sex, male n (%)	19 (46)	26 (37)	0.42
Race C, n (%)	35 (85)	56 (80)	0.61

Data are presented as median (interquartile range) for age or n (percentage) for categorical data. IQR, interquartile range; C, Caucasian. P values were calculated using Fisher Exact test and Wilcoxon Two-Sample test.

Supplemental Table 2: Anti-Coagulation Medications in Study Population

Variable	VTE^{neg} (n=29)	VTE^{pos} (n=12)	P value
Aspirin	8 (28)	4 (33)	0.49
Warfarin	0 (0)	0 (0)	na
Heparin	0 (0)	0 (0)	na
Enoxaparin	0 (0)	0 (0)	na

Data are presented as n (percentage). P values were calculated using a Fisher's exact Test.

Supplemental Table 3: Immunosuppressive Therapy in Study Population

Variable	VTE^{neg} (n=29)	VTE^{pos} (n=12)	P value
Cyclophosphamide	9 (31)	5 (42)	0.72
Mycophenolate mofetil	7 (24)	4 (33)	0.70
Azathioprine	8 (28)	5 (42)	0.47
Rituximab	25 (86)	9 (75)	0.4
Prednisone	28 (97)	12 (100)	1.00
TPE	3 (10)	6 (50)	0.01
Other	3 (10)	2 (17)	0.62

Data are presented as n (percentage). TPE, therapeutic plasma exchange. P values were calculated using a Fisher's exact test. Values <0.05 are considered significant.
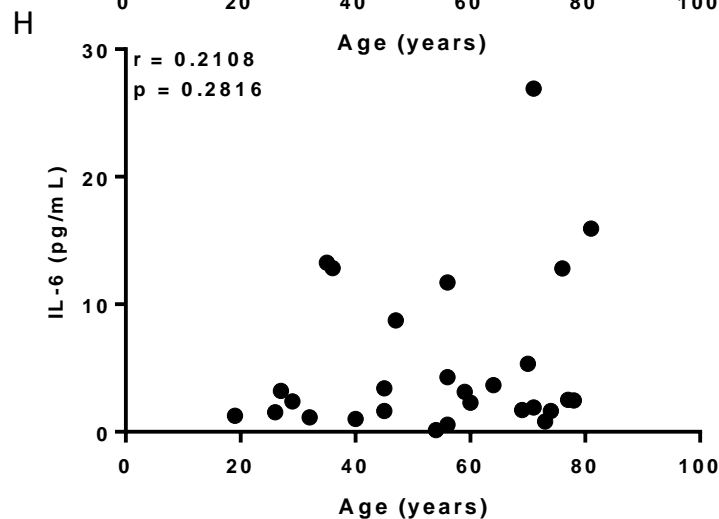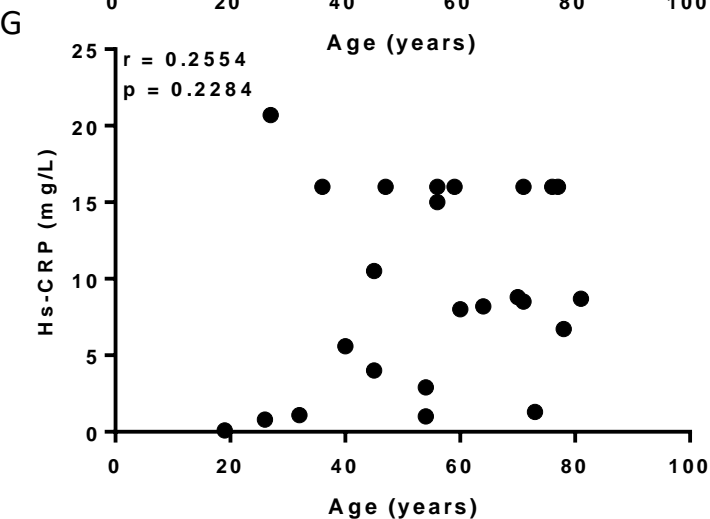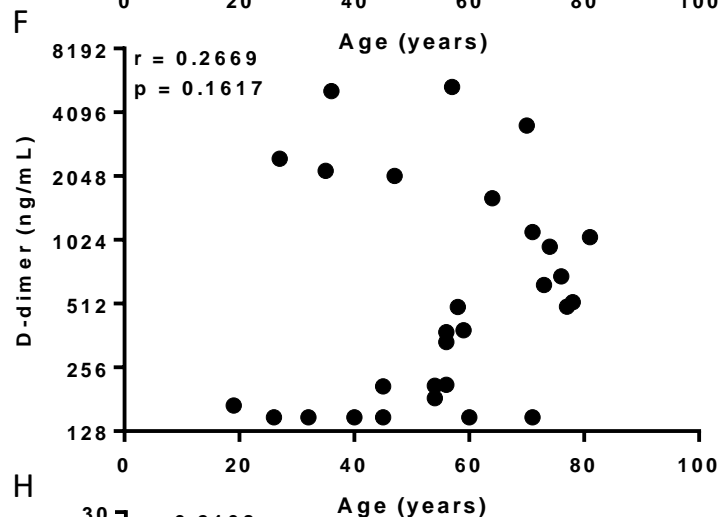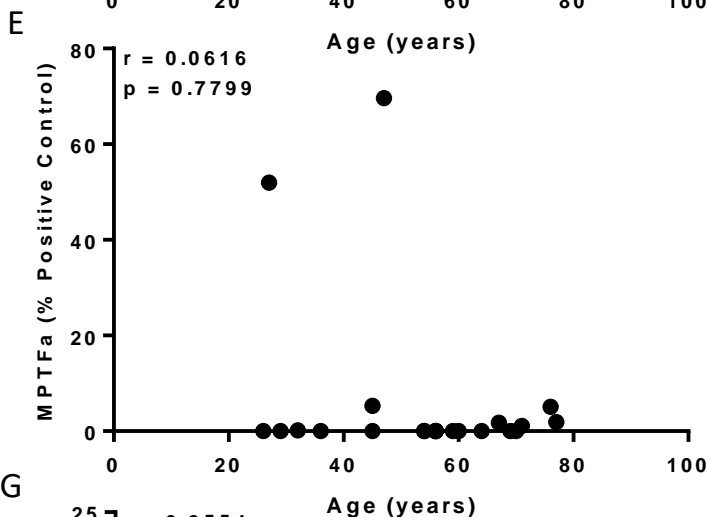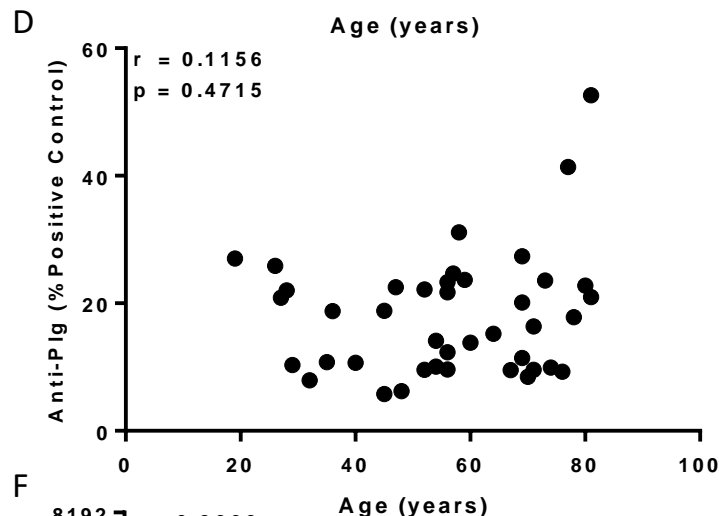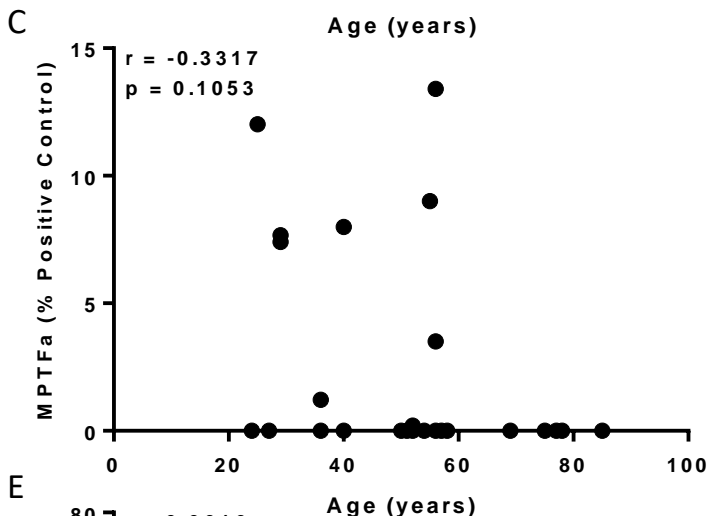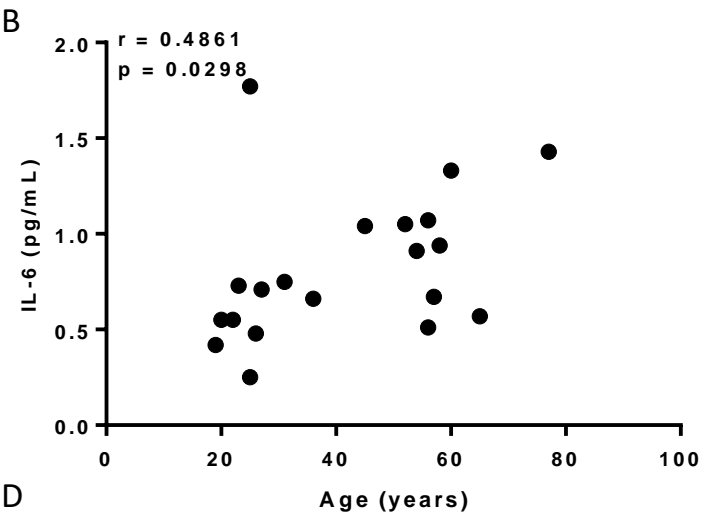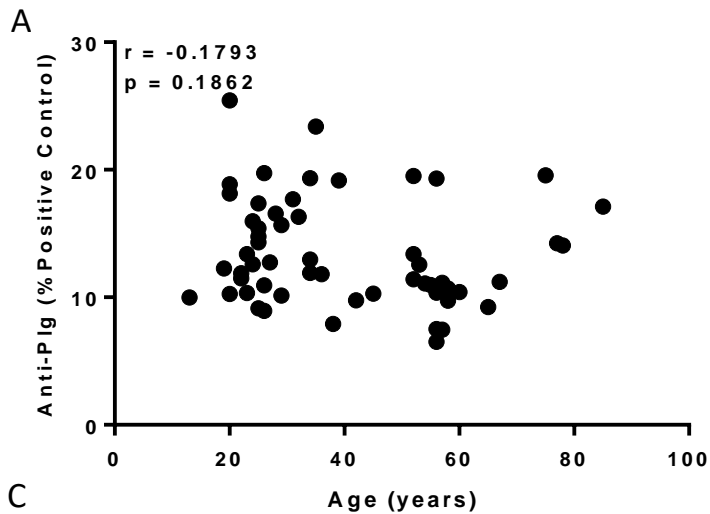
Supplemental Figure Legends

Supplemental Figure 1. Correlation of candidate markers with age in healthy controls or patients. The correlation of age with biomarkers examined in this study was analyzed using Spearman correlation. (A-C) Correlation curves of age for healthy controls with anti-Plg (A, n=56), IL-6 concentration (B, n=20), and MPTFa (C, n=25). Healthy control age does not correlate with anti-Plg (A) or MPTFa (C), but does correlate with IL-6 (B). (D-H) Correlation curves of patient age with anti-Plg (D, n=41), MPTFa (E, n=23), D-dimer (F, n=29), high sensitivity CRP (G, n=24), and IL-6 concentration (H, n=28). Patient age does not correlate with any of the candidate markers. Anti-plg, anti-plasminogen; Hs-CRP, high sensitivity C reactive protein, IL-6, interleukin 6; MPTFa, microparticle tissue factor activity; VTE, venous thromboembolism.
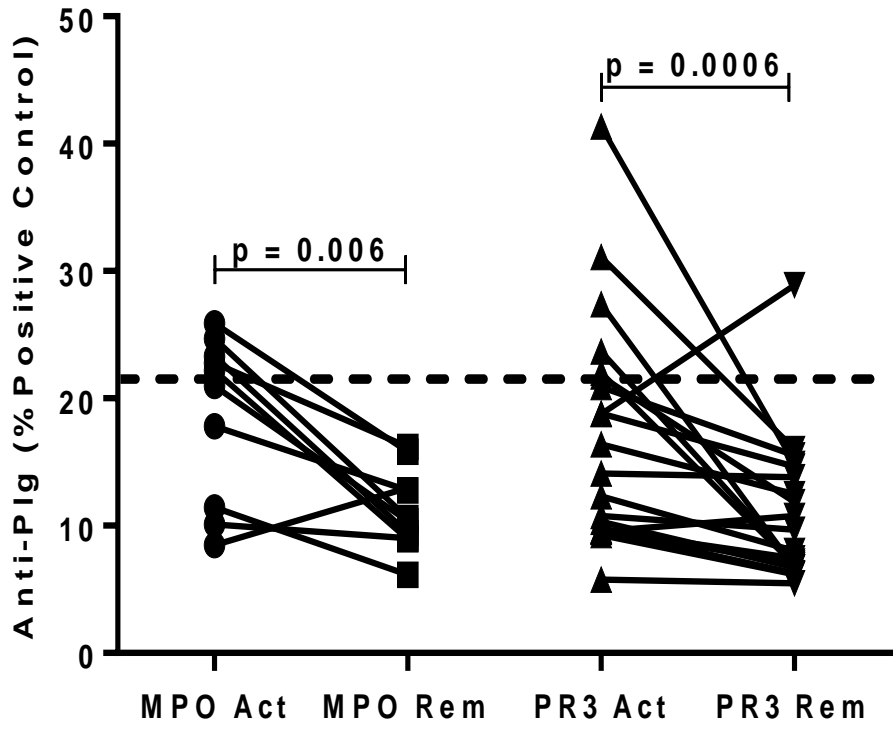
Supplemental Figure 2. Anti-plasminogen antibodies correlate with disease activity in MPO- and PR3-ANCA vasculitis. MPO- (n=10) and PR3-ANCA (n=20) patients in active disease had significantly higher levels of anti-Plg than patients in remission. The dashed line represents the threshold for positivity, as determined by the mean of healthy control values + 2 standard deviations. Anti-plg, anti-plasminogen; MPO, myeloperoxidase; PR3, proteinase 3; Act, active; Rem, remission.
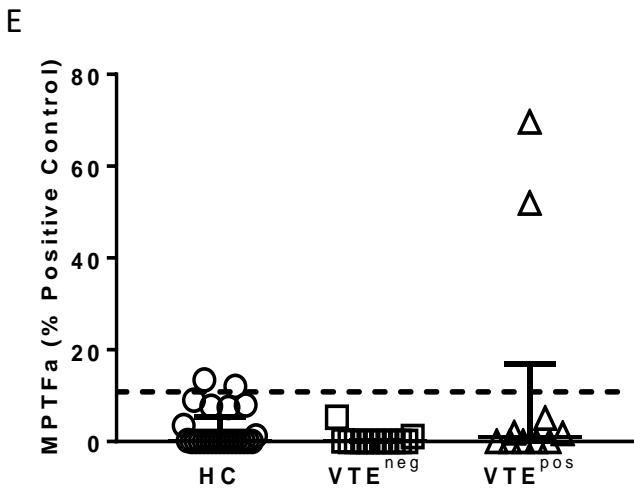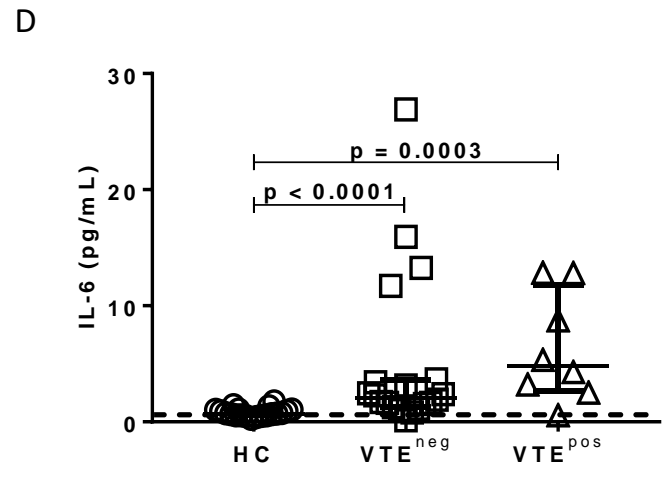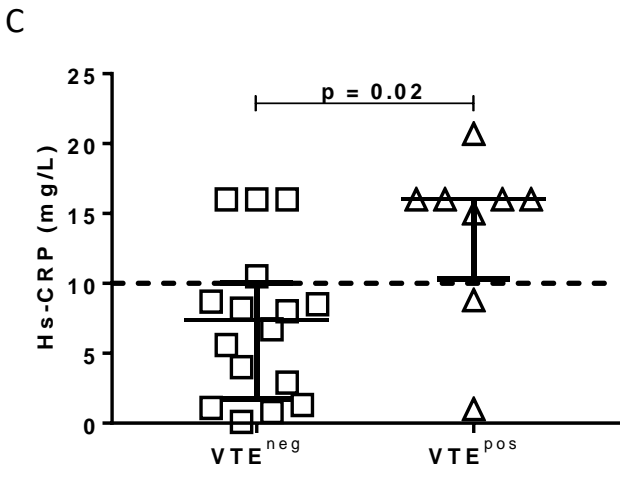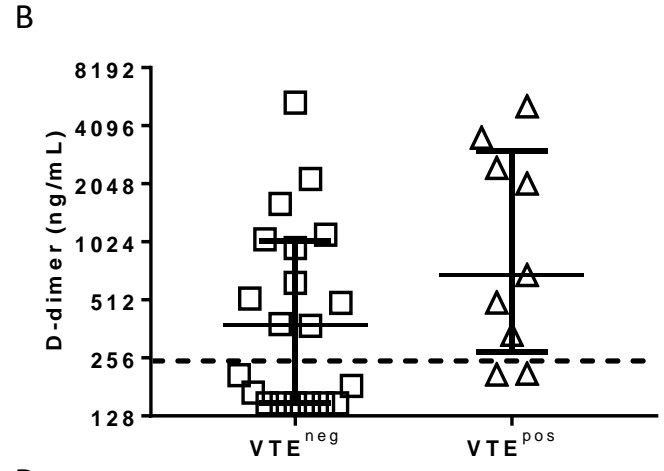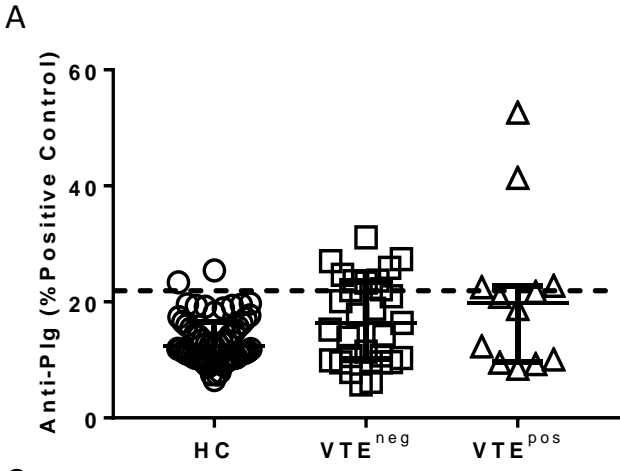
Supplemental Figure 3. Comparison of candidate biomarkers in patients during active disease. (A) No difference in anti-Plg was seen between HC (n=56) and VTE[neg] (n=29, p=0.08), HC and VTE[pos] (n=12, p=0.13), or VTE[neg] and VTE[pos] (p=0.88) patients at active disease. (B) No difference in D-dimer was detected between VTE[neg] (n=20) and VTE[pos] patients (n=9) during active disease (p=0.08). (C) During active disease, VTE[pos] patients (n=8) have elevated hs-CRP compared to VTE[neg] patients (n=16). (D) VTE[neg] (n=20) and VTE[pos] (n=8) patients have significantly higher levels of IL-6 than HC (n=20) at active disease; VTE[pos] and VTE[neg] patients were not significantly different (p=0.13) (E) Further division of the active patient group into 13 VTE[neg] and 10 VTE[pos] patients did not uncover differences in MPTFa between these active subgroups (p=0.1). The dashed line represents the threshold for positivity, as determined by the mean of healthy control values + 2 standard deviations or values used for reporting clinical laboratory results. Anti-plg, anti-plasminogen; Hs-CRP, high sensitivity C reactive protein, IL-6, interleukin 6; MPTFa, microparticle tissue factor activity; VTE, venous thromboembolism; HC, healthy control.

Supplemental Figure 4. Some VTE[neg] patients exceed threshold of positivity for Anti-Plg but not MPTFa (A) Anti-plg was tested on longitudinal samples from 29 VTE[neg] patients. Eleven of 29 patients have elevated anti-Plg during the study period. These patients are shown as symbols and lines in color while the other patients are shown as black symbols and lines. (B) MPTFa was tested on longitudinal samples from 21 VTE[neg] patients. None of the VTE[neg] patients had elevated MPTFa in up to 46 months. Zero denotes the date of active disease used in the disease activity analysis. The dashed line represents the threshold for positivity, as determined by the mean of
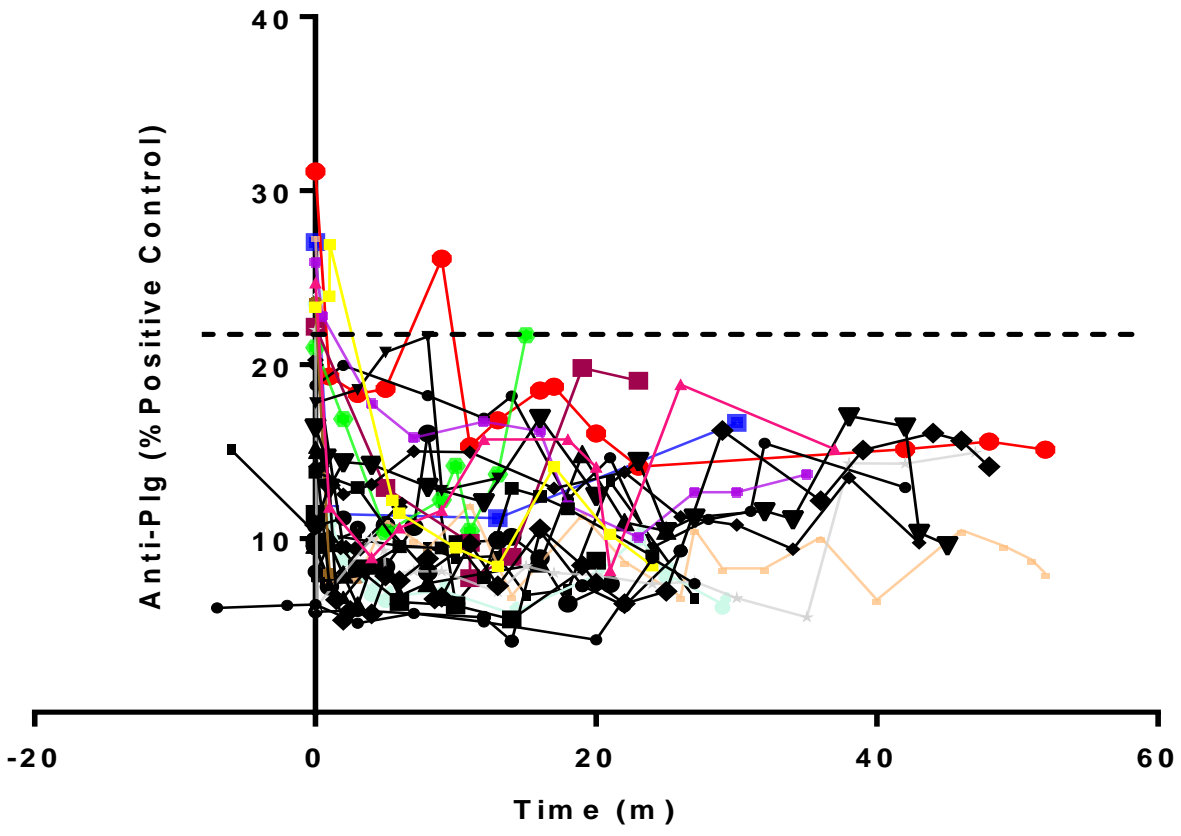
A
r = -0.1793
p = 0.1862

B
r = 0.4861
p = 0.0298

C
r = -0.3317
p = 0.1053

D
r = 0.1156
p = 0.4715

E
r = 0.0616
p = 0.7799

F
r = 0.2669
p = 0.1617

G
r = 0.2554
p = 0.2284

H
r = 0.2108
p = 0.2816

A

A

Anti-PIg (%Positive Control)

HC   VTE^neg   VTE^pos

B

D-dimer (ng/mL)

VTE^neg   VTE^pos

C

Hs-CRP (mg/L)

p = 0.02

VTE^neg   VTE^pos

D

IL-6 (pg/mL)

p = 0.0003
p < 0.0001

HC   VTE^neg   VTE^pos

E

MPTFa (% Positive Control)

HC   VTE^neg   VTE^pos

A

B