

Supplemental Table 1. Distribution of Analytes Compared to Healthy Controls*

		Healthy Controls	ICU Non-Sepsis	ICU Sepsis
Caspase-1	% Below Median	50.00%	16.67%	5.26%
	% Above Median	50.00%	83.33%	94.74%
	p-value		<0.0001	<0.0001
IL-18	% Below Median	48.65%	44.44%	18.18%
	% Above Median	51.35%	55.56%	81.82%
	p-value		NS	<0.0001
A β _{x-40}	% Below Median	50.00%	50.00%	20.00%
	% Above Median	50.00%	50.00%	80.00%
	p-value		NS	<0.0001

*ICU patient data distribution was compared to that of the healthy controls and represented at percent of data points above or below the healthy control median using a two-sided 1 proportion z-test with $p < 0.05$ considered significant. NS = not significant.

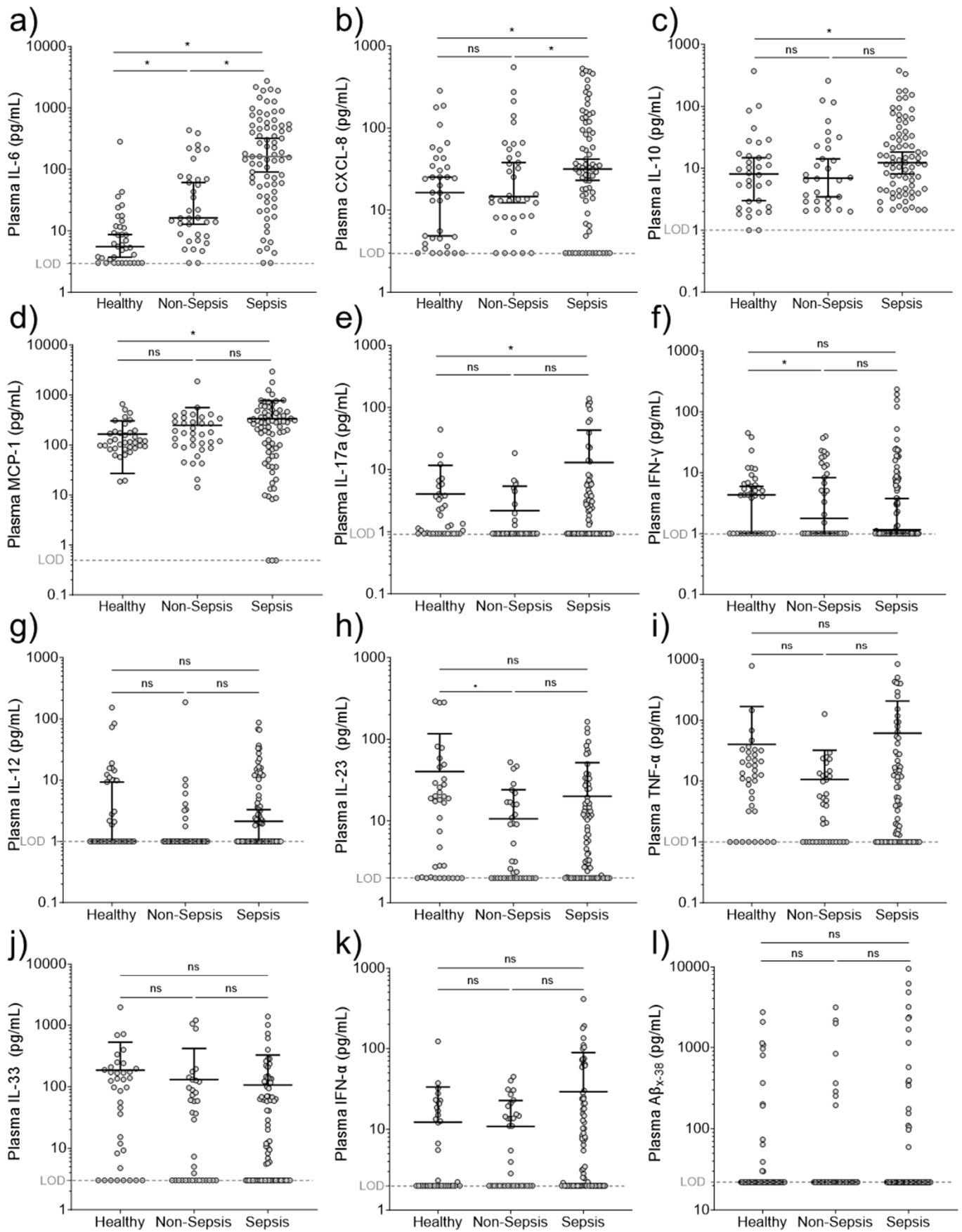
Supplemental Table 2. Analyte Variance*

Analyte	Healthy Control	ICU Non-Sepsis	ICU Sepsis	p-value
Caspase-1	n [^] = 54 23.719 [#]	n= 36 89.872	n= 76 741.309	<0.0001
IL-18	n= 37 84.638	n= 36 408.982	n= 77 2291.827	0.0031
A β _{x-40}	n= 54 131.606	n= 36 134.405	n= 75 213.089	<0.0001
A β _{x-42}	n= 15 150.976	n= 30 16.106	n= 55 93.483	0.0002
A β _{x-42/x-40}	n= 15 0.220	n= 30 0.145	n= 54 0.127	0.0056
TNF- α	n= 35 131.544	n= 22 25.833	n= 54 268.141	0.0011
IL-6	n= 33 48.543	n= 35 109.424	n= 75 2964.922	0.0457
IL-8	n= 36 60.780	n= 33 106.909	n= 65 1011.525	0.0419
IFN- α	n= 24 24.887	n= 21 12.083	n= 52 127.086	0.0030

*A majority of these analytes tested displayed a high level of variance. Levene's test with a p < 0.05 was used to identify analyte variants that are statistically different.

[^]Number of observations

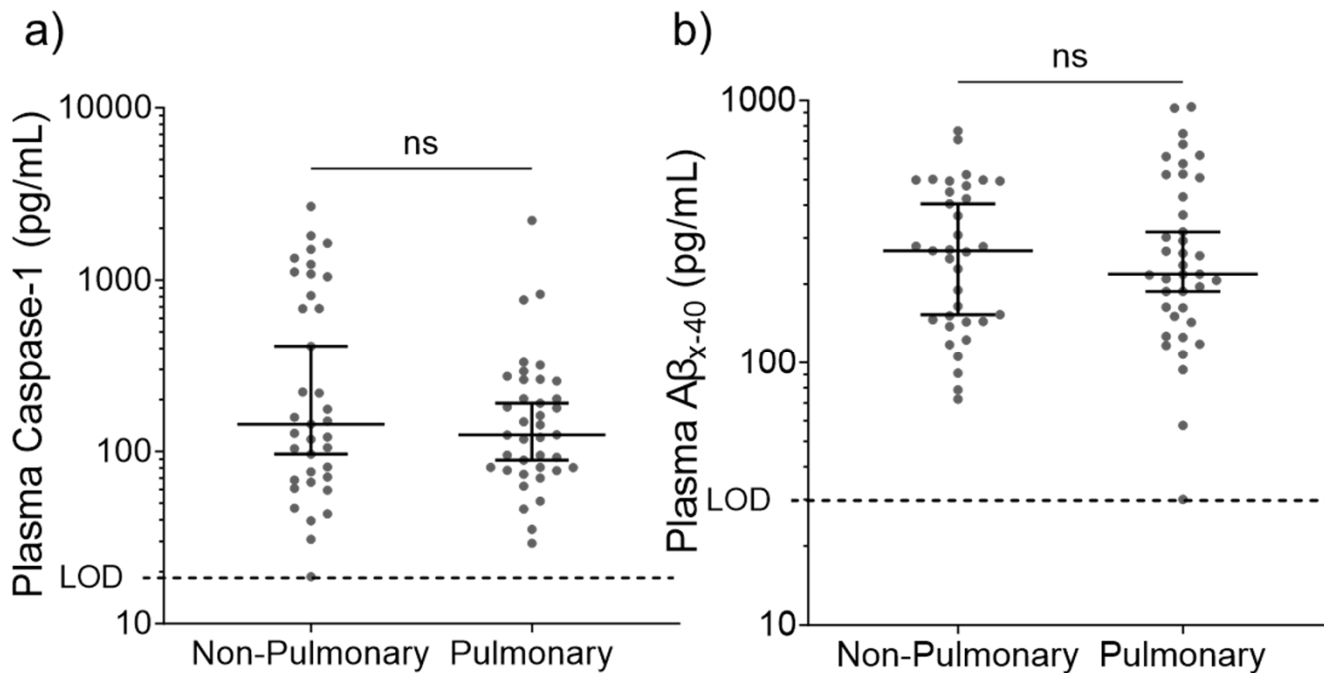
[#]Standard deviations



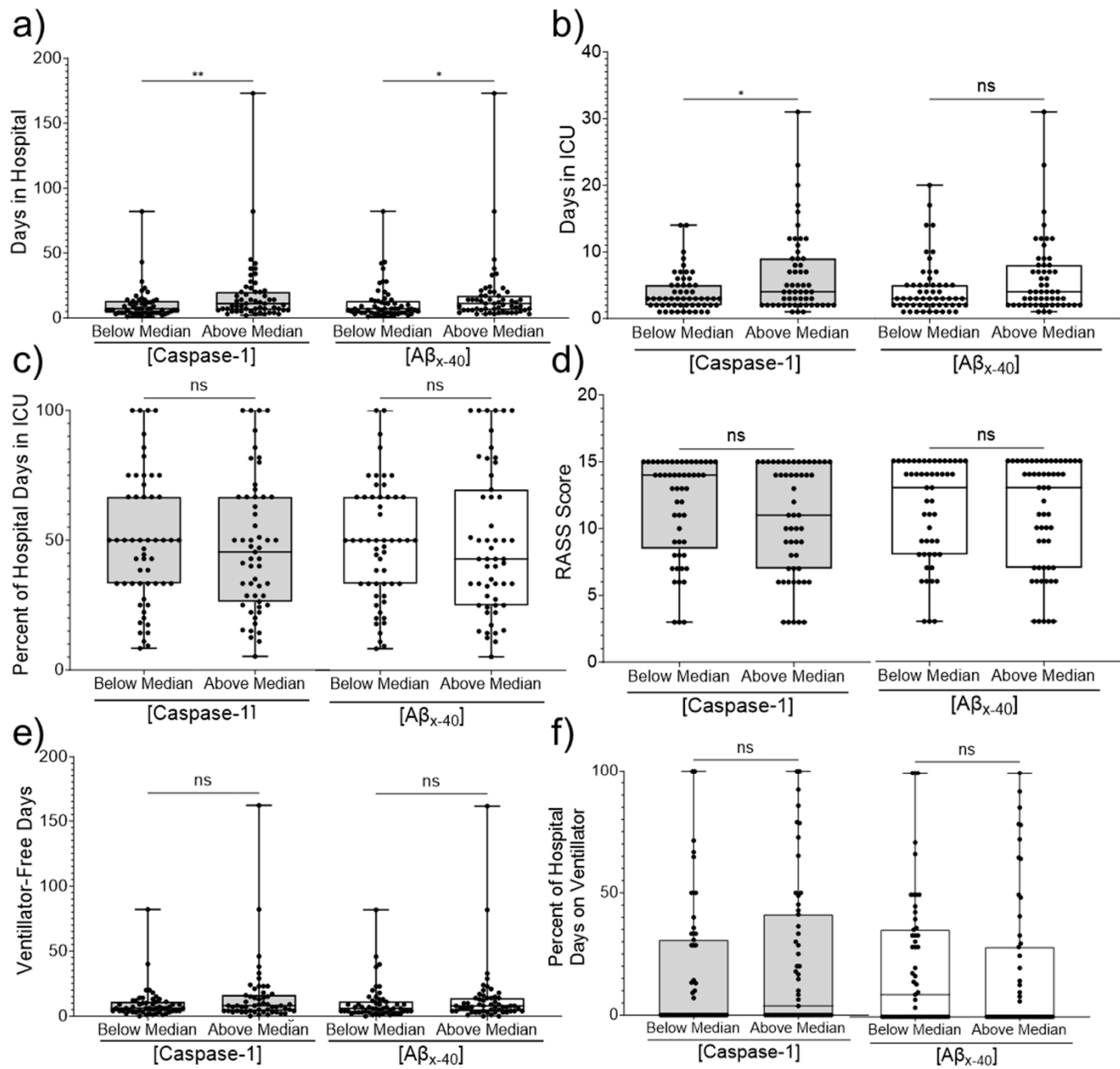
Supplemental Figure 1. Other plasma cytokine analytes. * $p < 0.05$ was considered significant when comparing medians using a Steel test.

Characteristic	Pulmonary Sepsis (n = 39)	Non-Pulmonary Sepsis (n = 38)
Average Age - yr. (range)	60.1 (21-91)	57.6 (20-87)
Male sex - no./total. (%)	20/39 (51.3%)	22/38 (57.9%)
Female Sex -no./total. (%)	19/39 (48.7%)	16/38 (42.1%)
Race - no./total. (%)		
White	18/39 (46.2%)	17/38 (44.7%)
Black	21/39 (53.8%)	21/38 (55.3%)
Intubated - no./total. (%)	25/39 (64.1%)	7/36 [^] (19.4%)
Vasopressor - no./total. (%)	9/39 (23.1%)	12/38 (31.6%)

[^]Intubation status of 2 Sepsis Non-Pulmonary patients are unknown.



Supplemental Figure 2. The origin of the sepsis infection does not significantly alter cytokine levels. When the sepsis group is subdivided into either sepsis of a pulmonary origin or sepsis of a non-pulmonary origin, **a)** Caspase-1 and **b)** Aβ_{x-40} are not significantly different between the two sepsis groups.



Supplemental Figure 3. Other patient outcome data. * $p < 0.05$ or ** $p < 0.01$ were considered significant when comparing medians using the Mann-Whitney test.