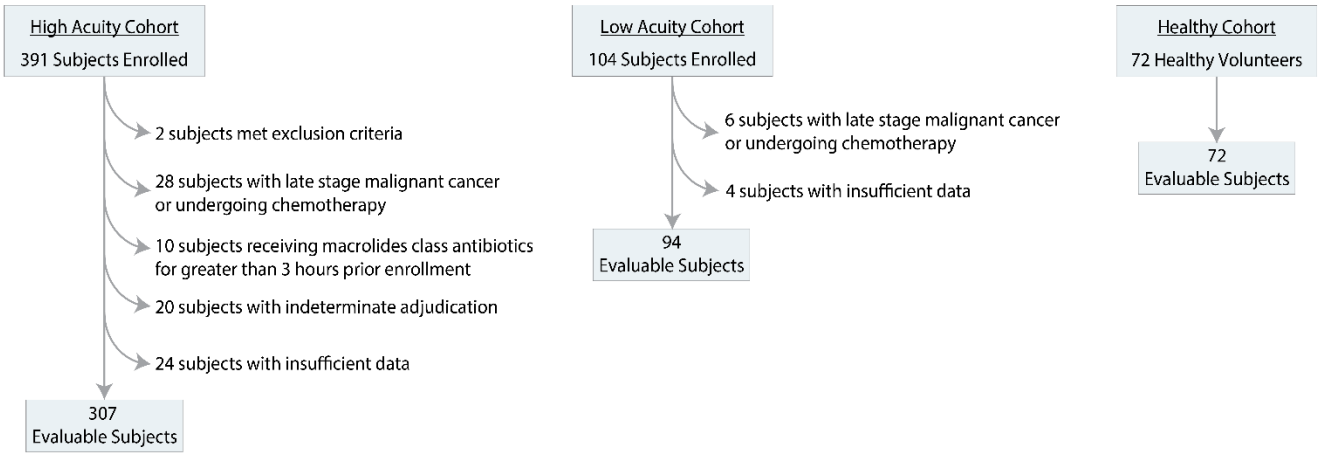
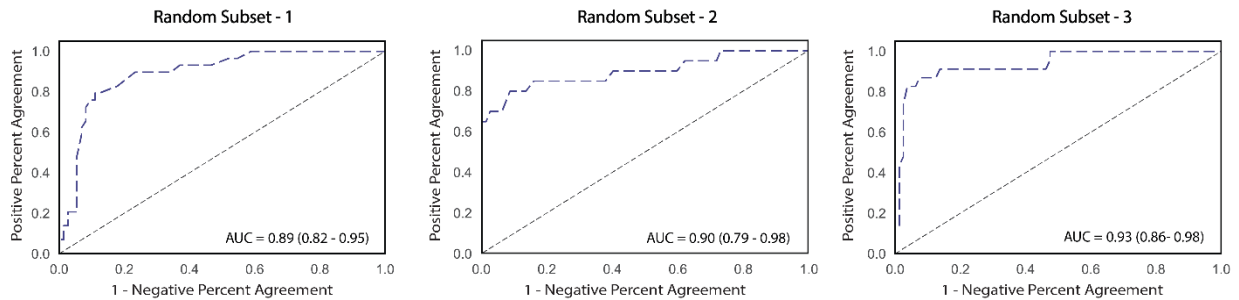


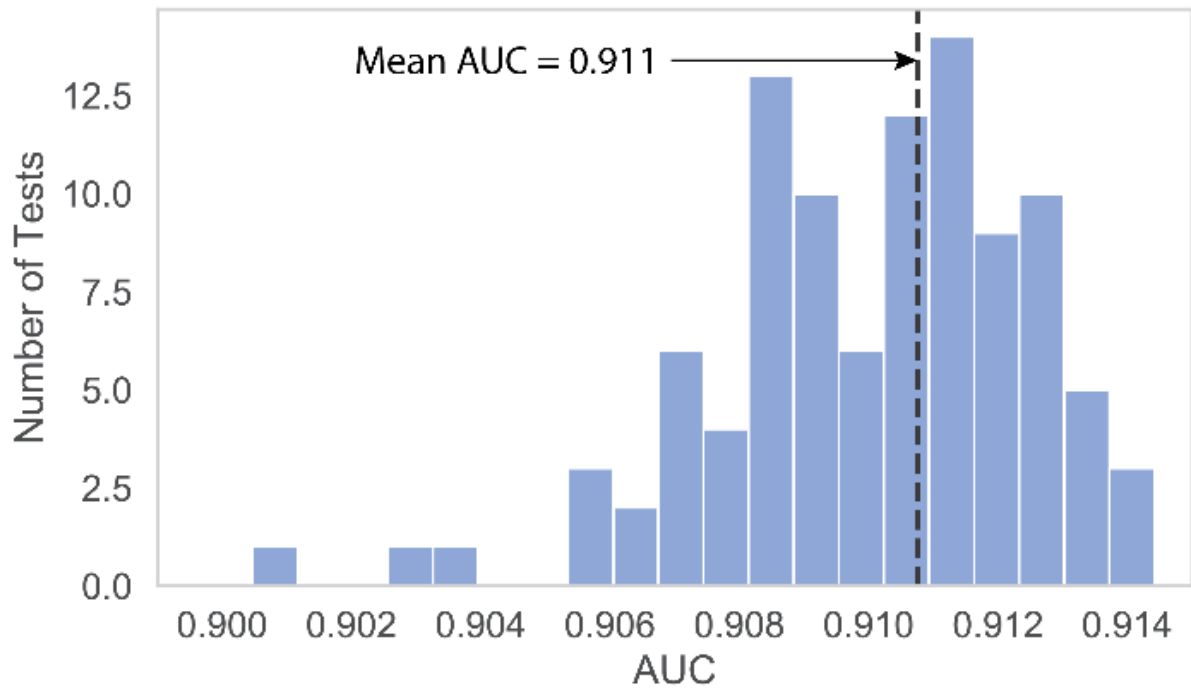
Supporting information



S1 Fig. Flow chart for selection of evaluable subjects and exclusion of ineligible subjects.



S2 Fig. Receiver Operating Characteristic (ROC) curves showing the 3-fold cross-validation of the high acuity cohort.



S3 Fig. Distribution of cross-validated AUC for repeated 10-fold partitions of the high acuity cohort. Dotted black line indicates the mean AUC of 0.91.

S1 Table. Effect size, as measured by Cohen’s d, for data in Fig 2.

Cell type	Mean Aspect Ratio			Mean VEIR		
	Healthy vs. SIRS 2+	SIRS 2+ vs. Septic	Healthy vs. Septic	Healthy vs. SIRS 2+	SIRS 2+ vs. Septic	Healthy vs. Septic
Lymphocytes	0.87	-0.40	0.46	-0.91	0.52	-0.35
Neutrophils	-1.16	-0.68	-1.99	-0.71	-1.43	-1.90
Monocytes	-0.22	-0.54	-0.77	-0.79	-1.42	-2.50

VEIR, visco-elastic inertial response

S2 Table. Baseline demographics (age, sex, and race) across interpretation bands for subjects in each of the three cohorts.

Characteristic		Cohort	Green Band	Yellow Band	Red Band
Age, median (IQR)		High Acuity	58.7 (46-71)	52.0 (63-77)	57.0 (56-85)
Gender (Female), N (%)			96 (49.2)	29 (54.7)	29 (49.2)
Race, N (%)	White		94 (48.2)	40 (75.4)	29 (49.2)
	African American		88 (45.1)	10 (18.9)	25 (42.4)
	Other	13 (6.7)	3 (5.7)	5 (8.5)	
Age, median (IQR)		Low Acuity	54.4 (37-71)	60.5 (51-64)	61.9 (54-70)
Gender (Female), N (%)			33 (45.2)	4 (40.0)	7 (63.6)
Race, N (%)	White		34 (46.6)	6 (60.0)	7 (63.6)
	African American		36 (49.3)	4 (40.0)	4 (36.4)
	Other	3 (4.1)	0 (0.0)	0 (0.0)	
Age, median (IQR)		Healthy	52.5 (38-68)	0 (0.0)	0 (0.0)
Gender (Female), N (%)			40 (55.6)	0 (0.0)	0 (0.0)
Race, N (%)	White		63 (87.5)	0 (0.0)	0 (0.0)
	African American		4 (5.6)	0 (0.0)	0 (0.0)
	Other	3 (4.2)	0 (0.0)	0 (0.0)	

Abbreviations: IQR, interquartile range (Q1 – Q3).