

Supporting Information

Bronchoalveolar Lavage Fluid from Chronic Obstructive Pulmonary Disease Patients Increases Neutrophil Chemotaxis Measured by a Microfluidic Platform

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Supplementary Table S1. The clinical data of COPD participants.

Patient No.	CAT score	Frequency of COPD (times/year)	Years of onset	mMRC Dyspnea Scale	GOLD stage	pO ₂ (mmHg)	pCO ₂ (mmHg)	pH	WBC (10 ⁹ L ⁻¹)	Neutrophil (10 ⁹ L ⁻¹)
1	20	1	10	1	3	69	45.9	7.38	6.96	4.47
2	15	1	3	1	2	51	38.6	7.423	7.15	4.31
3	21	1	10	1	2	69.7	33.3	7.4	9.2	6.5
4	15	1	22	1	3	82	42	7.429	10.2	8
5	22	2	30	3	3	79	44.3	7.428	4.83	2.45
6	11	1	2	1	2	64	32.4	7.473	4.71	3.41
7	8	1	30	0	2	81	34.5	7.37	7.21	4.59
8	11	2	20	2	2	68	41.6	7.422	5.62	3.52

Supplementary Table S2. Linear regression analyses of neutrophil migration in COPD BALF samples against patients' clinical data. $p \leq 0.05$ (*) was considered statistically significant. mMRC, Modified Medical Research Council; GOLD, Global Initiative for Chronic Obstructive Lung Disease; CAT, COPD Assessment Test; WBC, white blood cell.

Variables	Equation	r^2	p
Velocity vs. COPD patients' clinical data			
Velocity vs. FEV%	$Y = 257.8 \times X + 30.74$	0.3976	0.0937
Velocity vs. FVC%	$Y = 161.5 \times X + 62.18$	0.2586	0.1982
Velocity vs. CAT score	$Y = -120.6 \times X + 23.59$	0.5484	0.0356*
Velocity vs. frequency of COPD	$Y = 1.029 \times X + 1.180$	0.005055	0.8671
Velocity vs. years of onset	$Y = 181.0 \times X + 3.539$	0.2663	0.1905
Velocity vs. mMRC Dyspnea Scale	$Y = -11.68 \times X + 2.046$	0.1775	0.2986
Velocity vs. GOLD Stage	$Y = -6.541 \times X + 2.821$	0.1633	0.3208
Velocity vs. pH	$Y = -0.5011 \times X + 7.450$	0.2457	0.2116
Velocity vs. pO ₂ (mmHg)	$Y = 106.9 \times X + 63.18$	0.1096	0.4231
Velocity vs. pCO ₂ (mmHg)	$Y = -31.65 \times X + 41.23$	0.03815	0.6430
Velocity vs. WBC (10^9 L^{-1})	$Y = 3.250 \times X + 6.764$	0.002800	0.9010
Velocity vs. neutrophil (10^9 L^{-1})	$Y = 1.126 \times X + 4.579$	0.0004044	0.9623
C. I. vs. COPD patients' clinical data			
C. I. vs. FEV%	$Y = -100.9 \times X + 78.08$	0.3729	0.1078
C. I. vs. FVC%	$Y = -38.10 \times X + 84.43$	0.08800	0.4756
C. I. vs. CAT score	$Y = 2.767 \times X + 14.56$	0.001765	0.9213
C. I. vs. frequency of COPD	$Y = -2.802 \times X + 2.077$	0.2291	0.2302
C. I. vs. years of onset	$Y = -74.90 \times X + 37.97$	0.2788	0.1786
C. I. vs. mMRC Dyspnea Scale	$Y = -2.827 \times X + 2.084$	0.06360	0.5468
C. I. vs. GOLD Stage	$Y = 1.201 \times X + 2.021$	0.03370	0.6634
C. I. vs. pH	$Y = 0.07768 \times X + 7.393$	0.03611	0.6522
C. I. vs. pO ₂ (mmHg)	$Y = -36.13 \times X + 81.12$	0.07657	0.5070
C. I. vs. pCO ₂ (mmHg)	$Y = -2.502 \times X + 39.81$	0.001458	0.9285
C. I. vs. WBC (10^9 L^{-1})	$Y = -8.189 \times X + 9.401$	0.1087	0.4251
C. I. vs. neutrophil (10^9 L^{-1})	$Y = -5.812 \times X + 6.371$	0.06586	0.5395