

Supplementary Materials

| Supplementary Table 1. Correlation between plasma cathelicidin levels and blood levels of markers associated with COPD progression. | | |
|---|-------------|---------|
| | Pearson's r | P-value |
| Vitamin D | 0.03 | 0.23 |
| C-reactive protein | 0.14 | <0.001 |
| Fibrinogen | 0.02 | 0.59 |
| Interleuken-6 | 0.03 | 0.41 |
| S100 Calcium binding protein | 0.08 | 0.17 |
| White blood cell count | 0.16 | <0.001 |
| Club cell secretory protein-16 | 0.03 | 0.22 |

| Supplementary Table 2. Independent associations* between cathelicidin levels and odds of severe AECOPD in the year prior to enrollment | | | | |
|--|--------------------------------------|---------|--|---------|
| | Low Cathelicidin (<50 vs. ≥50 ng/ml) | | Continuous Cathelicidin (per 10 ng/ml lower) | |
| | OR (95% CI) | P-value | OR (95% CI) | P-value |
| Cathelicidin | 1.22 (0.88-1.69) | 0.23 | 1.04 (0.96-1.13) | 0.29 |
| Age, per 10 years | 0.53 (0.44-0.65) | <0.001 | 0.53 (0.44-0.64) | <0.001 |
| Black race | 2.13 (1.49-3.04) | <0.001 | 2.13 (1.49-3.04) | <0.001 |
| Female gender | 1.31 (0.85-1.51) | 0.40 | 1.12 (0.84-1.49) | 0.45 |
| Current smoking | 0.54 (0.39-0.76) | <0.001 | 0.55 (0.39-0.76) | <0.001 |
| Pack-years smoked, per 10 pack-years | 0.97 (0.92-1.04) | 0.40 | 1.00 (0.98-1.02) | 0.30 |
| BMI, kg/m ² | 1.00 (0.97-1.03) | 0.95 | 0.99 (0.96-1.01) | 0.24 |

*Multivariable logistic regression controlled for all covariates in table
Abbreviations: BMI = Body mass index

| Supplementary Table 3. Independent associations* between cathelicidin levels and odds of severe AECOPD at one year after enrollment. | | | | |
|--|--------------------------------------|---------|--|---------|
| | Low Cathelicidin (<50 vs. ≥50 ng/ml) | | Continuous Cathelicidin (per 10 ng/ml lower) | |
| | OR (95% CI) | P-value | OR (95% CI) | P-value |
| Cathelicidin | 0.95 (0.63-1.43) | 0.80 | 1.02 (0.95-1.10) | 0.64 |
| Age, per 10 years | 0.65 (0.51-0.82) | <0.001 | 0.74 (0.60-0.92) | 0.01 |
| Black race | 1.52 (0.96-2.41) | 0.13 | 2.33 (1.58-3.43) | <0.001 |
| Female gender | 1.32 (0.93-1.87) | 0.13 | 1.37 (1.01-1.88) | 0.05 |
| Current smoking | 0.68 (0.45-1.01) | 0.06 | 0.77 (0.54-1.11) | 0.16 |
| Pack-years smoked, per 10 pack-years | 1.03 (0.96-1.10) | 0.43 | 1.04 (0.99-1.10) | 0.14 |
| BMI, kg/m ² | 0.97 (0.94-1.01) | 0.11 | 0.98 (0.94-1.01) | 0.37 |

*Multivariable logistic regression controlled for all covariates in table

Supplementary Figure 1. CONSORT diagram describing selection of cohort.

