

Supplementary Table S1. Stress-related questionnaires

The following 40 questionnaires to have the signs were answered for yes or no.

1. Stress-related behaviors for stress status

- Symptoms: Tension, anger, nervous indigestion.
- Triggers: People at work or home.
- Coping mechanisms: Eating, drinking, smoking.
- Symptoms: Tension, headaches, neck and shoulder pain, insomnia.
- Relaxation during leisure time.
- Difficulty concentrating on work due to worries.
- Medication use for tension relief.
- Limited time for relaxation.
- Inability to use spare time for relaxation.
- Rushed deadlines at work.

2. Psychological signs for stress status

- Always anxious.
- Easily gets excited or angry.
- Decreased concentration and patience.
- Severe absent-mindedness.
- Prone to depression and feeling down.
- Lack of motivation.
- Excessive doubts and hesitation.
- Low self-confidence and tendency to give up.
- Inability to relax without doing something.
- Impulsive judgments.

3. Physical signs for stress status

- Shortness of breath.
- Dry throat or mouth.
- Insomnia.
- Frequent headaches.

- Easily fatigued eyes.
- Shoulder and neck stiffness.
- Chest tightness and nausea.
- Decreased appetite.
- Constipation or diarrhea.
- Fatigue and sluggishness

4. Behavioral signs

- Increased arguments, complaints, and backtalk.
- More mistakes in work.
- Increased alcohol intake.
- Overly engrossed in work.
- Decreased speech and deep in thought.
- Increased talking and forceful opinions.
- Easily angered by trivial matters.
- Decreased interest in grooming and appearance.
- More personal calls or restroom visits at work.
- Increased absences, tardiness, or early departures (neglecting household chores or farming).

Supplementary Table S2. Generalized multifactor dimensionality reduction (GMDR) results of multi-locus interaction with genes related to COPD risk

	TRBA	TEBA	P value	CVC		TRBA	TEBA	P value	CVC
<i>CAVI</i> _rs1997571	0.5307	0.5022	0.623	5	<i>CAVI</i> _rs1997571	0.5329	0.5062	0.1719	5
<i>MTCL1</i> _rs17482826, <i>FAM13A</i> _rs1585258	0.5493	0.549	0.011	10	<i>MTCL1</i> _rs17482826, <i>FAM13A</i> _rs1585258	0.5475	0.5252	0.0107	6
<i>ITGA1</i> _rs889294, <i>CAVI</i> _rs1997571, <i>CPD</i> _rs719601	0.5591	0.5265	0.0547	5	<i>ITGA1</i> _rs889294, <i>CAVI</i> _rs1997571, <i>CPD</i> _rs719601	0.5613	0.5374	0.001	7
<i>FAM13A</i> _rs1585258, <i>CAVI</i> _rs1997571, <i>CPD</i> _rs719601, <i>PEPD</i> _rs10405598	0.5784	0.5177	0.377	4	<i>FAM13A</i> _rs1585258, <i>CAVI</i> _rs1997571, <i>CPD</i> _rs719601, <i>PEPD</i> _rs10405598	0.5785	0.5259	0.0547	5
<i>ITGA1</i> _rs889294 plus Model 4	0.6133	0.54	0.001	10	<i>ITGA1</i> _rs889294 plus Model 4	0.6109	0.543	0.001	10
<i>MTCL1</i> _rs17482826 plus Model 5	0.6503	0.5494	0.011	9	<i>MTCL1</i> _rs17482826 plus Model 5	0.6448	0.5352	0.001	7
<i>PTPRD</i> _rs10959052 plus Model 6	0.686	0.5461	0.001	10	<i>PTPRD</i> _rs10959052 plus Model 6	0.6805	0.5387	0.001	10
<i>ABCA13</i> _rs4145714 plus Model 7	0.7175	0.5443	0.001	10	<i>ABCA13</i> _rs4145714 plus Model 7	0.7132	0.5493	0.001	10
<i>ZNF385D</i> _rs117262613 plus Model 8	0.73	0.5401	0.001	9	<i>ZNF385D</i> _rs117262613 plus Model 8	0.7241	0.543	0.001	9
<i>NTM</i> _rs74433025 plus Model 9	0.7404	0.5438	0.001	10	<i>NTM</i> _rs74433025 plus Model 9	0.7337	0.5415	0.001	10

Adjusted for age, gender, BMI, education, and residence area for model 1. Adjusted for covariates for Model 1 plus energy intake, alcohol intake, smoking, medication for asthma, and exercise.