

## SUPPLEMENT

### Survey Questions

<b>Supplemental Table 1: Marijuana Survey Questions</b>	
<b>1</b>	Have you ever smoked marijuana (cannabis, pot, or hashish)?
<b>2</b>	If yes, have you ever smoked marijuana regularly (five times or more in a given year)?
<b>3</b>	If yes, on average over the entire time that you smoke(d) about how many joints per week do (did) you smoke?
<b>4</b>	If yes, on average over the entire time that you smoke(d) about how many pipes per week do (did) you smoke?
<b>5</b>	How many years have you smoked pot/marijuana?
<b>6</b>	When was the last time you smoked marijuana?

### SPIROMICS recruitment criteria

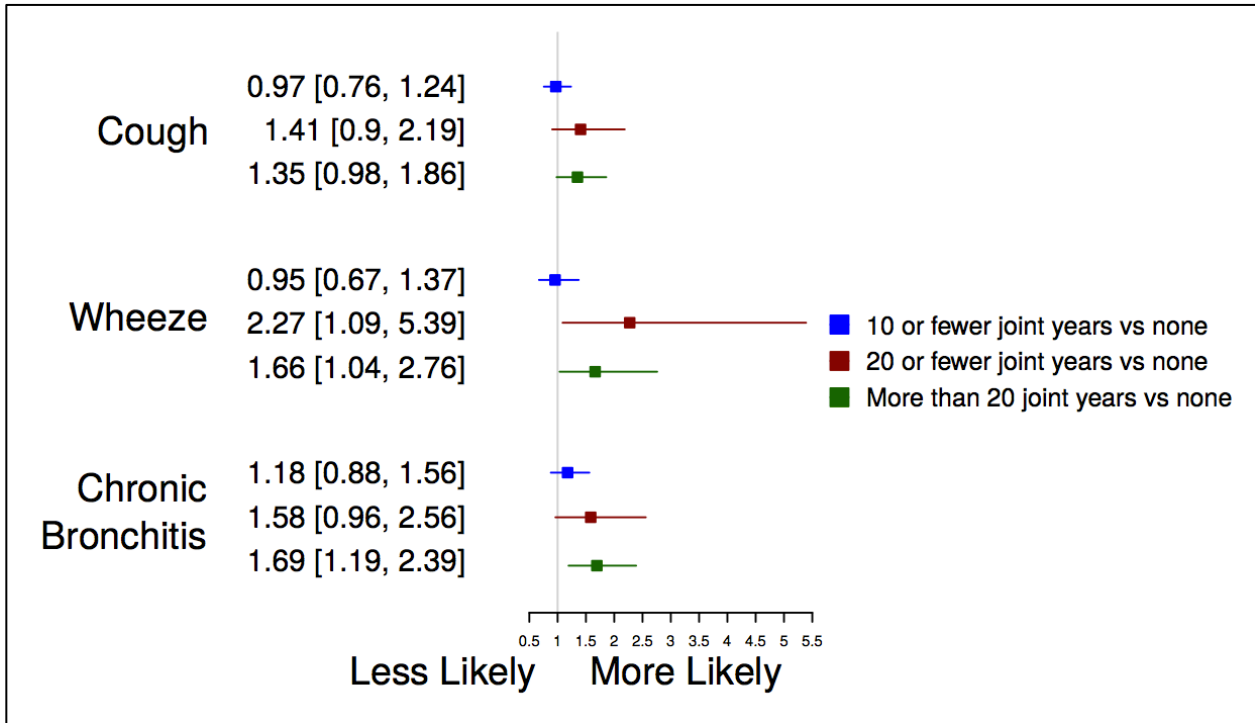
<b>Supplementary Table 1a: Patient Characteristics; SPIROMICS strata guidelines</b>				
	<b>Non-smokers (1)</b> N=	<b>Smokers (2)</b> N=	<b>Mild/moderate COPD(3)</b>	<b>Severe COPD (4)</b>
<b>Smoking status</b>	<1 pack year	>20 pack years	>20 pack years	>20 pack years
<b>Bronchodilator status</b>	Pre- bronchodilator	Post- bronchodilator	Post-bronchodilator	Post- bronchodilator
<b>FEV<sub>1</sub>/FVC ratio</b>	FEV <sub>1</sub> /FVC>0.7	FEV <sub>1</sub> /FVC>0.7	FEV <sub>1</sub> /FVC<0.7	FEV <sub>1</sub> /FVC<0.7
<b>Other lung function</b>	FVC>LLN	FVC>LLN	FEV <sub>1</sub> >50% pred.	FEV <sub>1</sub> <50% pred.

<b>Table 1b: Participant Characteristics</b>				
	<b>Lifetime Joint-Year History</b>			
	<b>0 JYs (n=1,610) %</b>	<b>0-10 JYs (n=388) %</b>	<b>10-20 JYs (n=98) %</b>	<b>&gt;20 JYs (n=208) %</b>
<b>Age (<math>\mu \pm SD</math>)</b>	65.8 $\pm$ 8.4	**60.5 $\pm$ 8.3	**58.5 $\pm$ 7.7	**57.9 $\pm$ 7.8
<b>Gender</b>				
<b>Male</b>	49.6	*55.4	**67.3	**69.2
<b>Race</b>				
<b>White</b>	79.6	**72.9	*70.4	*72.1
<b>Tobacco use status:</b>		**	*	**
<b>Former</b>	64.0	55.4	52.0	43.8
<b>Current</b>	36.0	44.6	48.0	56.2
<b>MJ use status:</b>			**	**
<b>Never</b>	70.2	--	--	--
<b>Former</b>	27.8	89.4	70.4	57.2
<b>Current</b>	2.0	10.6	29.6	42.8
<b>Tobacco pack-years (<math>\mu \pm SD</math>)</b>	51.2 $\pm$ 28.9	**45.9 $\pm$ 20.5	46.6 $\pm$ 31.5	**45.5 $\pm$ 25.4
<b>Joint years (<math>\mu \pm SD</math>)</b>	--	2.8 $\pm$ 2.9	14.9 $\pm$ 3.1	84.4 $\pm$ 105.3
<b>Height cm (<math>\mu \pm SD</math>)</b>	169.1 $\pm$ 9.6	*170.3 $\pm$ 9.7	**173.0 $\pm$ 9.4	**172.1 $\pm$ 9.4
<b>BMI K/m<sup>2</sup> (<math>\mu \pm SD</math>)</b>	27.8 $\pm$ 5.3	27.8 $\pm$ 5.4	27.4 $\pm$ 5.4	27.7 $\pm$ 5.0
<b>GOLD Stage:</b>		**	*	
<b>control</b>	30.4	39.7	44.9	37.0
<b>(1)</b>	14.7	14.4	11.2	15.9
<b>(2)</b>	31.6	23.7	24.5	29.8
<b>(3)</b>	16.6	14.2	10.2	12.0
<b>(4)</b>	6.5	7.7	9.2	5.3

Compared to those who reported zero joint years. One joint-year is equal to smoking one joint per day for one year. One tobacco pack year is equal to smoking one pack (20 cigarettes) per day for one year; \*p<0.05, \*\*p<0.01.

<b>Table 2b: Participant Radiographic Phenotype and Lung Function</b>				
	<b>Lifetime JointYear History</b>			
	<b>0 JYs (n=1,610) (<math>\mu \pm SD</math>)</b>	<b>0-10 JYs (n=388) (<math>\mu \pm SD</math>)</b>	<b>10-20 JYs (n=98) (<math>\mu \pm SD</math>)</b>	<b>&gt;20 JYs (n=208) (<math>\mu \pm SD</math>)</b>
<b>Percent Emphysema</b>	8.2 $\pm$ 10.2	7.6 $\pm$ 10.7	6.9 $\pm$ 9.4	6.6 $\pm$ 9.6
<b>Percent Air Trapping</b>	61.5 $\pm$ 16.6	*61.6 $\pm$ 18.1	**64.3 $\pm$ 15.2	60.7 $\pm$ 19.3
Compared to those who reported zero joint years. One joint-year is equal to smoking one joint per day for one year. Adjusted for age, gender, race, FEV <sub>1</sub> %, tobacco smoking, pack-years, and BMI. *P<0.05, **P<0.01				
<b>FEV<sub>1</sub>%</b>	71.6 $\pm$ 26.0	75.7 $\pm$ 28.2	76.1 $\pm$ 28.4	77.1 $\pm$ 25.6
<b>FVC%</b>	90.6 $\pm$ 18.3	*92.1 $\pm$ 19.1	*94.4 $\pm$ 17.6	**93.8 $\pm$ 18.0
Compared to those who reported zero joint years. One joint-year is equal to smoking one joint per day for one year. adjusted for age <sup>2</sup> , height <sup>2</sup> , tobacco smoking status, and tobacco pack years. *P<0.05, **P<0.01				
<b>Total Tissue Volume (mL)</b>	864.2 $\pm$ 176.7	887.4 $\pm$ 182.6	932.1 $\pm$ 172.0	934.0 $\pm$ 187.1
<b>FEV<sub>1</sub> (L)</b>	2.0 $\pm$ 0.9	2.2 $\pm$ 1.0	2.4 $\pm$ 1.0	*2.4 $\pm$ 0.9
<b>FVC (L)</b>	3.3 $\pm$ 1.0	*3.6 $\pm$ 1.0	**3.9 $\pm$ 1.0	**3.8 $\pm$ 1.0
<b>FEV<sub>1</sub>/FVC</b>	0.6 $\pm$ 0.2	0.6 $\pm$ 0.2	0.6 $\pm$ 0.2	0.6 $\pm$ 0.2
Compared to those who reported zero joint years. One joint-year is equal to smoking one joint per day for one year. adjusted for age, age <sup>2</sup> , height, height <sup>2</sup> , gender, race, tobacco smoking status, and pack-years. *P<0.05, **P<0.01				

**Figure 1b. Respiratory Symptoms among Current and Former Marijuana Users**



Multivariate analysis: odds ratios comparing lifetime exposure to marijuana. Lifetime exposure of categories include; 0-10, 10-20, and >20 joint-years compared to those who reported zero joint-years. Adjusted for age, race, gender, FEV<sub>1</sub>%, current tobacco smoking status, pack-years, and joint-years.