

## Supplemental Methods

### Inclusion and Exclusion Criteria for the Study Population

#### Healthy nonsmokers

##### Inclusion criteria

- Males and females, at least 18 years old
- Provide informed consent
- Good health without history of chronic lung disease, including asthma, and without recurrent or recent (within 3 months) acute pulmonary disease
- Normal physical examination
- Normal routine laboratory evaluation, including general hematologic studies, general serologic/immunologic studies, general biochemical analyses, and urine analysis
- HIV negative
- Normal PA and lateral chest X-ray
- Normal electrocardiogram (sinus bradycardia, premature atrial contractions are permissible)
- Not pregnant (females)
- No history of allergies to medications used in the bronchoscopy procedure
- Not taking any medications relevant to lung disease or having an effect on the airway epithelium
- Willingness to participate in the study
- Self-reported non smokers, with smoking status validated by the absence of nicotine and cotinine in urine

##### Exclusion criteria

- Unable to meet the inclusion criteria
- Current active infection or acute illness of any kind
- Alcohol or drug abuse within the past 6 months
- Evidence of malignancy within the past 5 years

#### Healthy active smokers

##### Inclusion criteria

- Males and females, at least 18 years old
- Provide informed consent
- Good health without history of chronic lung disease, including asthma, and without recurrent or recent (within 3 months) acute pulmonary disease
- Normal physical examination
- Normal routine laboratory evaluation, including general hematologic studies, general serologic/immunologic studies, general biochemical analyses, and urine analysis
- HIV negative
- Normal PA and lateral chest X-ray
- Normal electrocardiogram (sinus bradycardia, premature atrial contractions are permissible)
- Not pregnant (females)
- No history of allergies to medications used in the bronchoscopy procedure
- Not taking any medications relevant to lung disease or having an effect on the airway

epithelium

- Willingness to participate in the study
- Self-reported current daily smokers with any number of pack-yr, validated by urine nicotine  $\geq 1000$  ng/ml and/or cotinine  $>1000$  ng/ml

**Exclusion criteria**

- Unable to meet the inclusion criteria
- Current active infection or acute illness of any kind
- Alcohol or drug abuse within the past 6 months
- Evidence of malignancy within the past 5 years