**NEW YORK FEMALE ASIAN NONSMOKER SCREENING STUDY (FANSS): EXPLORING LUNG CANCER SCREENING IN A HIGH RISK POPULATION**

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**BACKGROUND:** Lung cancer is the leading cause of cancer death in Asian Americans and unfortunately the majority are diagnosed at advanced or late stage lung cancers. It has been reported that about 32% of Asians who have lung cancer do not smoke. In Asia, approximately 60 to 80% of female lung cancer patients are never smokers. In Taiwan, 55% of lung cancers are in never smokers and over 90% of the female lung cancer patients are never smokers. In comparison to patients diagnosed with locally advanced or metastatic lung cancer, patients with stage I lung cancers have higher cure and survival rates, supporting the premise of lung cancer screening programs. However, lung cancer screening has been focused on high risk populations that include current smokers or former smokers with an at least 30 pack year smoking history. As a result, the use of lung cancer screening in nonsmokers have only been explored in limited studies. NYFANSS is a study to develop a database and biorepository of Asian female never smokers residing in New York who undergo a low-dose CT (LDCT) scan for lung cancer screening. Enrollment into this database will also include a blood-based assay with the capability for early detection of cancer. Clinical, demographic and exposure history such as possible WTC exposure will also be collected.

**METHODS:** The target accrual is 1,000 participants of Asian descent, female gender, and never smoker status, living in the New York metropolitan area. Interested participants will contact a central number connected to a patient navigator who will help to assess for study eligibility. Participants who are eligible and able to sign informed consent will then proceed to have a LDCT screening exam with a result reported by a radiologist approved to read lung cancer screening scans. Results of this screening test will be discussed with the participant and further recommendations will be given. Negative results will proceed to have repeat LDCT for two additional years. Positive results will be recommended to have further diagnostic workup and possible treatment. In addition, blood draw collection for a plasma-based assay by Delfi Diagnostics will be sent at baseline, years 1 and 2. A questionnaire containing questions regarding ethnicity, environmental exposures including secondhand smoke exposure, and WTC dust exposure will be given to the patient at the initial visit after informed consent has been obtained.

**RESULTS:** This study is targeted to open for enrollment on October 1, 2020. As such no results are yet available.

**CONCLUSIONS:** The reported increased incidence of lung cancer in Asian female nonsmokers suggests this is a high risk population for the development of lung cancer. As a result, a lung screening program for this population has the potential to impact current clinical guidelines.

**CONTENT CATEGORY:** Epidemiology

**KEYWORDS:** *lung cancer, screening, cancer prevention, early detection, WTC*