Name(s)	Project Number
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Project Title
The Leading Causes of Lung Cancer in Non-Smokers

Abstract

Objectives/Goals
The purpose of my science fair project was to find the leading cause(s) of lung cancer in non-smokers.

Methods/Materials
Using the website, Surveymokey.com, I created a survey and posted a link to the survey on several different lung cancer sites, such as Lungcanceralliance.org, and anonymously surveyed 50 non-smokers and 78 smokers, smokers being my control. My survey asked about different factors which could have caused the survey-takers lung cancer.

Results
The data from this experiment showed that secondhand smoke was the cause of 56% of non-smokers lung cancer, with 36% of smokers with lung cancer having a family history of lung cancer and a mutation on the EGFR gene coming in second, and air pollution causing cancer in 20% of non-smokers with lung cancer.

Conclusions/Discussion
My conclusion is that secondhand smoke is the leading cause of lung cancer, with a family history of lung cancer and a mutation on the EGFR gene coming in second, and air pollution is the third leading cause. I also think that a mutation on the EGFR gene may be genetically passed down because of the same percentage of people who responded positive to both factors of a mutation on the EGFR gene and a family history with lung cancer. The results of my experiment suggest that people should try to avoid secondhand smoke and get tested for a mutation on the EGFR gene if they have a family history with lung cancer.

Summary Statement

I created and sent out a survey to smokers and non-smokers with lung cancer to determine the leading cause of lung cancer in non-smokers and the results showed that secondhand smoke was the leading cause.

Help Received

Dr. Gregg Newman of Sansum Clinic in Santa Barbara, CA and Dr. Jack West of the Swedish Cancer Institute in Seattle, WA answered a few questions about my topic and survey