Team Progress Updates

SU2C-LUNGevity Foundation-American Lung Association Lung Cancer Interception Dream Team:

"Intercept Lung Cancer Through Immune, Imaging, and Molecular Evaluation (InTIME)"

Lung cancer is the leading cause of cancer death in the United States and worldwide. The Lung Cancer Interception Dream Team proposes several complementary strategies to help prevent patients from developing lung cancer.

The team is working to create an atlas of precancer of the lung that can help identify the types of cancerous lung tissue that will require aggressive treatment. The team is also attempting to identify treatments that can prevent these abnormal lesions from progressing to invasive lung cancer.

In addition, the researchers are developing two sets of diagnostic tools that will be able to detect lung cancer early. The first set involves using nasal swabs and imaging to confirm whether lung abnormalities found in chest images are lung cancer or benign lung disease. The second set involves the use of blood tests to identify patients at the earliest stages of lung cancer recurrence.

The team has reported the following progress:

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- The team analyzed nasal samples from 114 smokers with indeterminate lung nodules. It was able to identify 37 genes that were more active or less active in cancer tissue, which can help identify individuals who are at risk of eventually developing lung cancer.
- The researchers worked on improving the method of CT imaging of suspicious lung nodules and found that by including the tissue surrounding lesions, they improved the chance of correctly diagnosing whether an individual has lung cancer.