GENETIC MUTATIONS AND LUNG CANCER:
WHY THEY MATTER

Testing for genetic mutations may help you and your doctor make clinical decisions.

PEOPLE LIVING WITH LUNG CANCER

430,000+ people living in the US have been diagnosed with lung cancer at some point in their lives.

~222,500 people in the US will be diagnosed with lung cancer in 2017.

BIOMARKERS AND THEIR SIGNIFICANCE

Tumors are driven by individual genes that have their own set of mutations, called biomarkers.

An estimated 60% of adenocarcinoma and 80% of squamous cell carcinoma are associated with a known mutation.

When it comes to treatment, one size does not fit all; identifying gene mutations can inform doctors and help guide treatment decisions for specific patients.

Doctors use biomarker tests, also known as companion diagnostics, to identify genetic information, such as gene mutations, in patients.

ADVANCED OR METASTATIC EPIDERMAL GROWTH FACTOR RECEPTOR (EGFR) NSCLC TREATMENT RESISTANCE

Cancer is smart. It is constantly changing and trying to outsmart the body and the treatments. This could mean that the cancer cells become resistant to targeted therapy.

If your treatment stops working, it is important to get tested to see if your cancer has developed treatment resistance.

• The majority of advanced or metastatic NSCLC EGFR tumors will develop resistance and progress to obtain another set of mutations.

• The most common cases of progression are related to T790M resistance mutation.

• Other less common acquired resistance may include HER2 or MET amplification, BRAF, FGFR and PIK3CA mutations.

SAMPLE PORTION OF A LUNG CANCER PATIENT TREATMENT JOURNEY

Biomarker testing conducted to help with initial diagnosis.

Eventually, treatment may stop working.

Doctor may use results to inform clinical decisions.

Second biomarker testing conducted to look for acquired resistance.

Additional treatment decisions considered.

To learn more and make your own Lung Cancer Action Plan, visit www.eegrfbrochure.com.

REFERENCES


