

THE ROLE OF GENETIC TESTING IN LUNG CANCER

Genetic testing in patients with lung cancer identify genetic mutations or changes in your lung cancer tumor cells. Results of genetic testing can:

- Inform and personalize your treatment options.
- Provide clues to your treatment response and prognosis.
- Monitor your treatment response and assess the effectiveness of therapy.

LUNG CANCER BIOMARKERS

A **biomarker**, also referred to as a molecular marker, is a measurable biological factor in blood, other body fluids, or tissues that is a sign of a normal or abnormal process.

- **Driver Mutations** determine whether a particular targeted therapy may be effective. Common driver mutations that can be targeted with currently available treatments include:
 - ALK
 - EGFR
 - ROS1
 - BRAF
 - NTRK
- **Immunotherapy Biomarkers** (such as the PD-L1 protein). If the PDL-1 protein is detected, the patient may benefit from immunotherapy.

TARGETED LUNG CANCER TREATMENTS

Inhibitor therapies work by inhibiting the pathway of the biomarkers that they target. Targeted lung cancer treatments include:

- Angiogenesis Inhibitors
- ALK Inhibitors
- BRAF Inhibitors
- EGFR Inhibitors
- NTRK Inhibitors
- ROS1 Inhibitors

TYPES OF GENETIC TESTS IN LUNG CANCER

- **Biopsy:** Tissue is removed from a tumor to be tested.
- **Blood Test:** Also referred to as a liquid biopsy or plasma test.

LUNG CANCER GENETIC TESTING: TAKE ACTION

- Make sure you see a lung cancer specialist.
- Discuss which tests you should undergo with your doctor.
- Review the results with your doctor.
- Do your own research on the findings.
- Work with your doctor to determine a personalized treatment plan for your lung cancer type.
- Ask your doctor when you should be tested and/or re-tested.

GLOSSARY OF TERMS

Immunotherapy: Type of therapy that harnesses one's own immune system to help the body fight cancer, infection, and other diseases.

PD-L1 Expression: Referred to as programmed death-ligand 1, PD-L1 is a receptor expressed on the surface of T-cells. PD-L1 expression is monitored in select patients to evaluate responses to anti-PD-1/L1 antibodies.