The right information at the right time

Familiarizing yourself with tests and terminology associated with your cancer diagnosis may help you throughout your treatment journey. With a greater understanding of your diagnosis and testing options, you can communicate effectively with your care team to make informed treatment decisions.

How your cancer is identified

There are many ways to diagnose cancer. Utilizing various methods can be critical to understanding your cancer and can help identify challenging dynamics within cancer cells. Your provider may order one or more methods to help build the most effective treatment plan.

Tumor profiling

Identifying a cancer's unique hallmarks

Tumor profiling—often called genomic profiling, molecular profiling, or biomarker testing—is a laboratory test to check for gene mutations or other alterations that make up the tumor biology and underlie the cancer growth. This information can help doctors build effective and personalized treatment plans based on your specific tumor.

Each patient's cancer has a unique genetic barcode. Blood cancers (like leukemia and lymphoma), as well as solid tumor cancers (such as breast and colon cancer), can carry unique mutations. While many patients could have the same diagnosis, such as non-small cell lung cancer (NSCLC) or acute myeloid leukemia (AML), there are often genetic variations in cancer cells that make the cancer different from one patient to the next.

Cancer research and clinical trials continuously advance what we know about cancer, including what makes everyone's cancer unique and how to select the right treatment.

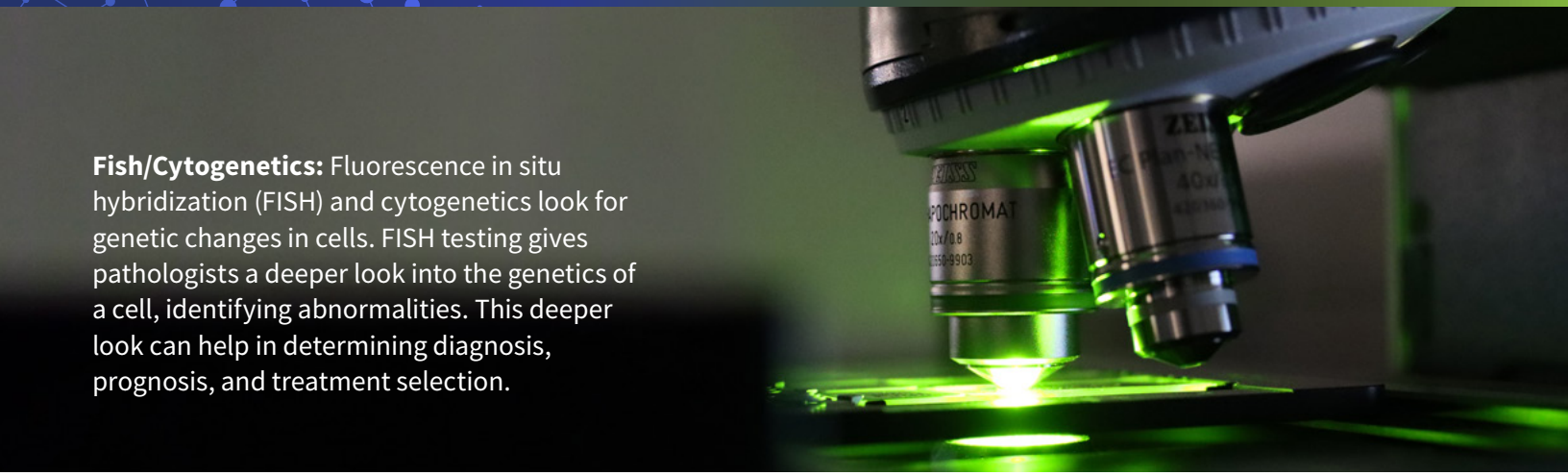
Tumor profiling is a detailed and sensitive laboratory analysis of cancer cells. This analysis exposes specific biomarkers and may identify targeted treatments matched to select mutations detected, helping to guide and identify the most effective plan. NeoGenomics provides genetic profiling to identify your cancer's unique biology.

Testing methods

Morphology refers to the microscopic examination of blood, bone marrow, or tissue. Various routine stains are applied to facilitate the visualization of different components of the tissue, leading to the final pathologic diagnosis.

Immunohistochemistry (IHC) testing is a type of staining process that can identify cancer cells, the cell types, and how advanced the cancer is.

Flow cytometry is a method that analyzes cells using fluorescent markers and light. When cells are analyzed in the cytometer, it can help detect abnormalities and identify healthy vs. diseased cells. Flow cytometry is often used for diagnosing blood cancers, cell counting, and detecting biomarkers.



Fish/Cytogenetics: Fluorescence in situ hybridization (FISH) and cytogenetics look for genetic changes in cells. FISH testing gives pathologists a deeper look into the genetics of a cell, identifying abnormalities. This deeper look can help in determining diagnosis, prognosis, and treatment selection.

Molecular testing is at the heart of precision medicine. Molecular tests can uncover genetic alterations or mutations that are causing your cells to malfunction, leading to develop into cancer. Molecular tests can be performed alongside other laboratory tests to help make a diagnosis, develop a treatment plan, and monitor how well a treatment is working.

Liquid biopsy is a blood sample, as opposed to a tumor tissue sample, which may be used instead of tissue for molecular testing, particularly genomic profiling. Liquid biopsy is noninvasive and may be used in the diagnostic process and for monitoring patients over time. Due to their noninvasive nature, liquid biopsies can be done more frequently by your provider if appropriate for your disease. Liquid biopsies can also help your care team assess the efficiency of your cancer treatment and identify early progression.

Terminology

Navigating the cancer care process begins with understanding the terminology behind commonly used words and phrases.

Diagnosis is the confirmation that cancer is present and the identification of the type of cancer.

Prognosis refers to the likely course of your disease, a prediction of how aggressively the disease will behave. This information also helps you and your team determine the best course of treatment for you.

Testing methodology refers to the way your blood or tissue is processed and analyzed. Your provider may order one or more types of testing methods, depending on your specific needs. The information that a provider receives from these tests can be used to guide treatment selection.

Treatment selection refers to the plan that you and your care team make to treat your cancer and is unique for all patients. Treatment selection is guided by the information discovered from tumor profiling (also known as biomarker testing), ordered by your doctor. For example, your doctor may recommend a specific targeted therapy if your cancer has a driver or actionable mutation.

Genetics is the study of the genes people inherit at birth and are passed on by their family through the generations.

Genomics more broadly refers to the study of gene changes that may drive various cancer behaviors, from how aggressive it is to which types of therapies it may respond to.

For more information on **understanding cancer testing and terminology**, please contact our Patient Support team at 866.776.5907, option 9, or visit NeoGenomics.com/Patients.

NeoGenomics, Inc. is a premier cancer diagnostics company specializing in cancer genetics testing and oncology data solutions. We offer one of the most comprehensive oncology-focused testing menus across the cancer continuum, serving oncologists, pathologists, hospital systems, academic centers, and pharmaceutical firms with innovative diagnostic and predictive testing to help them diagnose and treat cancer. Headquartered in Fort Myers, FL, NeoGenomics operates a network of CAP-accredited and CLIA-certified laboratories for full-service sample processing and analysis services throughout the US and a CAP-accredited full-service, sample-processing laboratory in Cambridge, England, United Kingdom.

NEO GENOMICS

9490 NeoGenomics Way
Fort Myers, FL 33912
Phn: 866.776.5907
Fax: 239.690.4237

NeoGenomics.com

CORP-MRKT-0239 07.25