Bridging the Biomarker Gaps



What is Comprehensive Biomarker Testing?

Comprehensive Biomarker Testing includes the use of next-generation sequencing (NGS) technologies which can detect many genomic alterations in a single test. Test results are analyzed by a pathologist and then packaged into a report to potentially provide more accurate diagnosis and therapy guidance. Recent scientific discoveries have led to a **better understanding of the molecular underpinnings of many forms of cancer**, including the identification of "biomarkers" – biological alterations that can identify the underlying drivers of disease and, in some cases, help predict how a patient's cancer may respond to a specific treatment.

Comprehensive biomarker testing looks for multiple genomic alterations in a single patient sample.

As of April 2020,

FDA-approved targeted therapies

in over 25 cancer typesi

The number of targeted oncology therapy indications and approvals

continues to grow rapidly – warranting a comprehensive approach to biomarker testing.







Why test for biomarkers?



Testing for the presence of molecular biomarkers can help pinpoint precise treatment options targeted to a patient's particular cancer.

As more targeted therapies become available for people with cancer, biomarker testing is quickly emerging as the standard of care: more than half of the cancer treatments released in the past five years required or recommended biomarker testing.ii

Increasing access to biomarker testing can help address persistent health disparities seen across the cancer care continuum.

Race. socioeconomic status and geographic location are just a few factors that drastically influence cancer treatment and outcomes. For example, racial and ethnic minorities are more likely to be diagnosed at a later stage for most cancer types.ⁱⁱⁱ Realizing the promise of biomarker testing can help bridge the cancer care gap by helping all patients and providers gain clinically actionable information to inform their course of treatment.

Biomarker testing, and personalized medicine more broadly, may result in cost savings for both the individual and the healthcare system by narrowing the scope and duration of treatment.

Biomarker testing holds promise for better patient outcomes – patients that are treated with targeted therapies tend to have fewer rounds of "failed treatment" and often experience fewer side effects than with chemotherapy.







- $i \quad \underline{\text{https://www.cancer.gov/about-cancer/treatment/types/targeted-therapies/targeted-therapies-fact-sheet\#what-types-of-targeted-therapies-are-available}$
- ii https://www.iqvia.com/form-pages/institute-gated?redirectUrl=%2f-%2fmedia%2fiqvia%2fpdfs%2finstitute-reports%2fiqvia-institute-supporting-precision-oncology-report.pdf%3f_%3d1619527340470&Name=IQVIA-Institute-Supporting-Precision-Oncology-Report
- iii https://www.cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/cancer-treatment-and-survivorship-facts-and-figures/cancer-treatment-and-survivorship-facts-and-figures-2019-2021.pdf
- $iv\ \underline{https://cdn.trusted tech experts.com/docs/Lung Cancer Initiative NC 2017/biomarker \% 20 rack \% 20 card \% 20 20 20 [1].pdf}$
- x https://schs.dph.ncdhhs.gov/units/ccr/documents/CCR-Brochure-2021-WEB-012121.pdf