Innovation in molecular diagnostics for precision oncology

Found within the bloodstream is circulating DNA that is shed from both normal tissues and from tumor cells. The total content of circulating DNA in the bloodstream is termed total circulating free DNA (cfDNA). The fraction of cfDNA that has been shed from tumor cells is known as circulating tumor DNA (ctDNA).

ctDNA is associated with residual disease and high relapse risk and has emerged as a promising noninvasive biomarker for longitudinal assessment of a tumor throughout disease management.\(^1\) ctDNA can be detected via a simple blood sample tested through common molecular diagnostics practices such as NGS (next-generation sequencing) and this has become known as molecular residual disease testing.

Molecular residual disease refers to molecular evidence of cancer in a sample either as a result of incomplete elimination of the cancer cells or when cancer has returned in patients who have been diagnosed with or treated for cancer. Thus, this type of testing may have utility throughout the postdiagnosis cancer care continuum. Serial molecular residual disease testing has potential applications in adjuvant therapy determinations, monitoring treatment response, and assessing for recurrence. It may help answer patient questions like “Did my cancer respond to therapy?” “Do I need additional therapy and/or different imaging surveillance?” “Do I still have cancer?” or “Has my cancer returned?”

Exact Sciences is a leading global diagnostics company advancing the way cancer is detected, diagnosed, and treated. We strive to change lives across the cancer care continuum by providing earlier answers and guidance for life-changing treatment through an ever-expanding portfolio along the cancer care continuum, from hereditary cancer testing and screening/surveillance tests to tests that help inform treatment guidance and therapy selection.
That is why Exact Sciences has developed, licensed, and acquired critical capabilities to continue to build along the cancer care continuum.

Helping Clinicians Make Life-Changing Actions Earlier