

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).

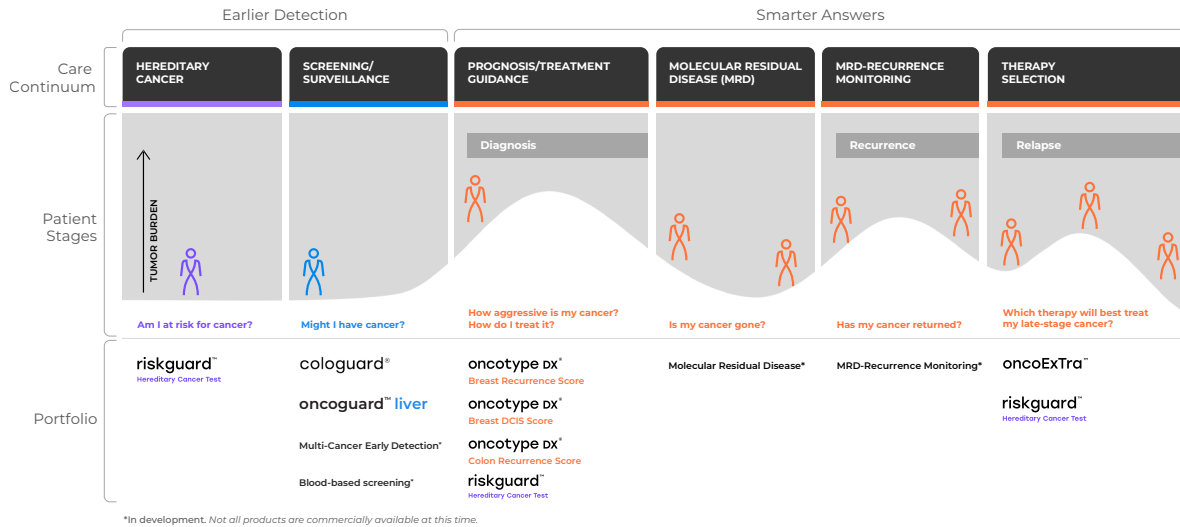
ctDNA is associated with residual disease and high relapse risk and has emerged as a promising noninvasive biomarker for longitudinal assessment of a tumor throughout disease management.¹ ctDNA can be detected via a simple blood sample tested through common molecular diagnostics practices such as NGS (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.

Innovating Across the Continuum to Elevate Cancer Care



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

ACQUISITIONS & CAPABILITIES		HEREDITARY CANCER	SCREENING/SURVEILLANCE	PROGNOSIS/TREATMENT GUIDANCE	MRD-RECURRENCE MONITORING	THERAPY SELECTION
		Diagnosis	Diagnosis	Recurrence	Relapse	Relapse
PRECISION ONCOLOGY EXPANDED PORTFOLIO	GENOMIC HEALTH	Powerful Oncotype brand and oncology infrastructure		X	X	X
	PREVENTION GENETICS	Hereditary cancer test and genetic testing lab	X	X		
	ASHION ANALYTICS	Lab with whole exome sequencing capabilities		X	X	X
	TARDIS	Exclusive license of targeted MRD sequencing method		X	X	
	THRIVE	Multi-cancer test, sequencing, and bioinformatics talent		X	X	
	BASE GENOMICS	Innovative methylation technology		X	X	
	PARADIGM DIAGNOSTICS	Differentiated therapy selection test, includes research and development and sequencing expertise				X
	PFS GENOMICS	Technology to inform breast cancer radiotherapy treatment		X	X	X
	BIOMATRICA	Sample stability technology to preserve more DNA	X	X	X	X
ONCXERNA THERAPEUTICS	RNA-expression biomarker platform to predict patient responses to targeted oncology therapies				X	

X commercially available X commercially available X NOT commercially available X commercially available X NOT commercially available

Reference: 1. Reinert T, Henriksen TV, Christensen E, et al. Analysis of plasma cell-free DNA by ultradeep sequencing in patients with stages I to III colorectal cancer. *JAMA Oncol.* 2019;5(8):1124-1131. doi:10.1001/jamaoncol.2019.0528