

Cancer type	Diagnostic dilemma	Discovery goal
Ovarian	<ul style="list-style-type: none"> • Most diagnoses occur in later stage • 5-year survival decreases dramatically as disease advances 	<ul style="list-style-type: none"> • Biomarkers for early detection • Biomarkers predicting platinum therapy resistance
Gastric	<ul style="list-style-type: none"> • Metastasis occurs in 80-90% of individuals with gastric cancer • Six month survival rate is 65% with early stage diagnosis and <15% with advanced stages 	<ul style="list-style-type: none"> • Biomarkers for early detection • Biomarkers predicting platinum therapy resistance
Colorectal	<ul style="list-style-type: none"> • 50% of cancers treated with surgery alone relapse • Therapies selected by stage of diagnosis not well associated with likelihood of response 	<ul style="list-style-type: none"> • Biomarkers for disease prognosis and relapse

The Cancer Initiative Has Three Goals:

1. *Identify early detection biomarkers for at-risk populations*
2. *Identify markers that predict which patients will respond to therapy*
3. *Identify markers of disease prognosis*

To achieve these goals, Illumina is partnering with leading cancer research institutions to undergo a multi-stage discovery and development process. The first step is to obtain samples for tumor and normal paired specimens. Next, the genomes, methylomes, and transcriptomes from these samples will be sequenced in an effort to identify disease-associated markers followed by validation using Illumina technologies and the ability to offer diagnostic services. Ultimately, we hope to deploy novel diagnostics on Illumina's BeadXpress® platform after prospective trials and regulatory clearance. We began with the ovarian cancer initiative and are progressing rapidly towards offering services for this disease in Illumina's Clinical Laboratory Improvement Amendments (CLIA) laboratory.

Spreading Awareness

Research efforts like these can take years to translate into a diagnostic test. In the meantime, each of us can join the cause against cancer by spreading awareness about the disease. Illumina is working with the Ovarian Cancer National Alliance and the Clarity Foundation to get the word out. Visit these groups at www.ovariancancer.org and www.clarityfoundation.org to learn more.