



## BIODESIX LUNG REFLEX® TESTING BACKGROUNDER

### The Need for Liquid Biopsy

In lung cancer patient care, tumor tissue is used for both pathological diagnosis and molecular profiling. However, it is often difficult to obtain enough tissue with optimal quality to perform all recommended testing. In one study, it was found that 51% of patients with non-small cell lung cancer (NSCLC) had insufficient tissue for molecular testing.<sup>1</sup> These challenges associated with tissue-based testing have led to the development of simple, blood-based diagnostics or “liquid biopsies” for molecular testing in patients with NSCLC.

This approach provides physicians with critical information—prediction of outcomes, identification of genetic alterations to guide therapy, and real-time monitoring of treatment response.<sup>2</sup>

Data has shown that one in four patients diagnosed with NSCLC begin treatment without their genetic mutation information.<sup>3</sup> Without this data, patients are at risk of being placed on an ineffective or unnecessary therapy which may impact their survival outcome. Liquid biopsies can provide this essential and complementary information to the patient’s healthcare team faster than traditional tissue-based molecular testing methods.

### Biodesix Lung Reflex Testing

Biodesix Lung Reflex® (BLR) testing provides physicians with blood-based genomic and proteomic results within 72 hours to help inform treatment guidance for patients diagnosed with NSCLC. BLR testing integrates GeneStrat® genomic test results and VeriStrat® proteomic test results to swiftly deliver more complete diagnostic information to help physicians determine the best care plan for each patient.

Data shows that BLR results within 72 hours helps expedite time to treatment for patients<sup>4</sup>, which may improve overall survival outcomes. BLR testing is the only commercially available testing strategy that leverages both genomics and proteomics to uncover individualized insights about the tumor biology (GeneStrat test) and the patient’s immune response to cancer (VeriStrat test).

The genes in the GeneStrat test and the VeriStrat proteomic test are covered by Medicare and many private payers. No out-of-pocket expense for Medicaid or covered Medicare patients. BLR testing is performed in a CLIA/CAP accredited, ISO 13485 certified and NYS CLEP approved high-complexity clinical laboratory located in Boulder, Colorado.

---

<sup>1</sup> Thompson, J., et al. 2016. Clin Cancer Res. 22(23); 5772–82.

<sup>2</sup> The Oncologist 2016;21:1-10. [www.theoncologist.com](http://www.theoncologist.com)

<sup>3</sup> ELCC 2015 Press Release: One in Four Advanced Lung Cancer Patients Tested for EGFR Mutations Started on First-line Treatment Before Test Results Available.” ESMO. N.p., 18 Apr 2015. Accessed on January 1, 2019 at <https://www.esmo.org/Conferences/Past-Conferences/ELCC-2015-Lung-Cancer/News-Press-Releases/One-in-Four-Advanced-Lung-Cancer-Patients-Tested-for-EGFR-Mutations-Started-on-First-line-Treatment-Before-Test-Results-Available>.

<sup>4</sup> Bowling M, et al. J Clin Oncol 36, 2018 (suppl; abstr e18519).