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First U.S. Patent Issued for Biocept's Target Selector Oncogene Mutation Enrichment and Detection Liquid Biopsy ctDNA Platform

Expands Biocept's intellectual property portfolio to 21 issued patents for its highly sensitive methods of detecting cancer biomarkers on circulating tumor cells (CTCs) and in circulating tumor DNA (ctDNA)

SAN DIEGO, Dec. 5, 2017 /PRNewswire/ -- Biocept, Inc. (NASDAQ: BIOC), a leading commercial provider of liquid biopsy tests designed to provide physicians with clinically actionable information to improve the outcomes of patients diagnosed with cancer, announces the issuance of U.S. Patent No. 9,834,817, entitled METHODS FOR DETECTING NUCLEIC ACID SEQUENCE VARIANTS. The patent is core to Biocept's Target Selector™ assays for ctDNA analysis using real-time PCR, Sanger sequencing and next generation sequencing (NGS).



The patent encompasses Biocept's proprietary "switch-blocker" technology, which enriches patient specimens for oncogene mutations of interest, resulting in ultra-high sensitivity and specificity for the detection of cancer-associated mutations. The switch blocker technology is designed to improve detection rates for these oncogenes, allowing physicians to make informed decisions for the selection of therapy and monitoring of treatment response over time for patients with cancer.

"The issuance of this patent signals what we believe is the first in a series of worldwide patents protecting our proprietary, highly sensitive ctDNA platform technology," said Lyle Arnold, Ph.D., Biocept's Chief Scientific Officer. "When combined with our patents and technology related to CTC capture and analysis as well as our blood transport tubes, Biocept has significant coverage protecting all three of its core liquid biopsy technology platforms."

Michael Nall, Biocept's President and CEO, added, "Biocept remains differentiated in the liquid biopsy field by using both ctDNA and CTC analysis on patient samples to detect and monitor actionable cancer biomarkers that are listed in the NCCN guidelines. Both of our platform technologies offer specialized enrichment methods that can aid physicians in making more informed decisions in the treatment of their patients with cancer. Obtaining this new intellectual property provides additional patent protection for the unique and novel features of our Target Selector™ dual platform approach."

About ctDNA Target Selector™ Technology

The "switch-blocker" technology covered by U.S. Patent No. 9,834,817 is applicable to a broad range of molecular genomic platforms, including real-time PCR, digital PCR, Sanger sequencing, NGS, arrays, mass-spec, and capillary detection systems. This technology allows normal (wild-type) nucleic acid material such as normal DNA to be significantly blocked from amplification, while genetic alterations associated with cancer are able to be amplified. This method greatly increases the detection sensitivity of genetic alterations such as cancer mutations in low abundance, as the "noise" associated with normal genetic sequences is largely eliminated.

Biocept's switch-blocker technology also has the advantage of reducing the cost of running assays, like NGS assays, by approximately 100-1,000-fold, since the expense of sequencing large amounts of uninformative wild-type nucleic acid is eliminated.

In clinical validation studies, Biocept has demonstrated, with a high degree of correlation, the ability to detect the same biomarkers in blood that were identified from tissue biopsy of solid tumors. Using a blood specimen to provide information on biomarkers found on solid tumors offers the benefits of reducing the risks and costs of biopsy relative to tissue, has convenience advantages, and can enable the ability to non-invasively conduct serial monitoring of patient specimens over

time.

About Biocept

Biocept, Inc. is a molecular diagnostics company with commercialized assays for lung, breast, gastric, colorectal and prostate cancers, and melanoma. The Company leverages its proprietary liquid biopsy technology to provide physicians with clinically actionable information for treating and monitoring patients diagnosed with cancer. Biocept's patented Target Selector™ liquid biopsy technology platforms capture and analyze tumor-associated molecular markers on circulating tumor cells (CTCs) and in circulating tumor DNA (ctDNA). With thousands of tests performed, the platform has demonstrated the ability to identify cancer mutations and alterations to inform physicians about a patient's disease and therapeutic options. For additional information, please visit www.biocept.com.

Forward-Looking Statements Disclaimer Statement

This news release contains forward-looking statements that are based upon current expectations or beliefs, as well as a number of assumptions about future events. Although we believe that the expectations reflected in the forward-looking statements and the assumptions upon which they are based are reasonable, we can give no assurance that such expectations and assumptions will prove to be correct. Forward-looking statements are generally identifiable by the use of words like "may," "will," "should," "could," "expect," "anticipate," "estimate," "believe," "intend" or "project," or the negative of these words or other variations on these words or comparable terminology. To the extent that statements in this news release are not strictly historical, including, without limitation, statements as to our ability to improve the outcomes of cancer patients, the utility and effectiveness of our intellectual property protections, our ability to obtain additional patents in the future covering our proprietary liquid biopsy technology, and the perceived benefits of our proprietary liquid biopsy technology, such statements are forward-looking, and are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. The reader is cautioned not to put undue reliance on these forward-looking statements, as these statements are subject to numerous risk factors as set forth in our Securities and Exchange Commission (SEC) filings. The effects of such risks and uncertainties could cause actual results to differ materially from the forward-looking statements contained in this news release. We do not plan to update any such forward-looking statements and expressly disclaim any duty to update the information contained in this press release except as required by law. Readers are advised to review our filings with the SEC at www.sec.gov

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