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Biocept, Inc. Announces New Methods for Isolating Previously Unrecognized Circulating Tumor Cells (CTCs)

San Diego, California – Biocept, Inc., a privately?held, CLIA certified laboratory testing company focused on detection and analysis of circulating tumor cells in cancer patients, announced today the publication of a paper on research performed with collaborators from the University of Texas MD Anderson Cancer Center entitled “Novel Platform for the Detection of Cytokeratin Positive (CK+) and Cytokeratin Negative (CK?) CTCs” appearing in the December issue of Cancer Discovery. Cytokeratin is a protein biomarker for epithelial cells and this work indicates that not all CTCs have epithelial properties.

Cytokeratin negative (CK?) CTCs are a phenotype of cells that has been under? appreciated because most current CTC capture and detection platforms utilize technology that is not able to recognize these cells. This publication describes the application of Biocept’s proprietary Cell Enrichment and Extraction (CEETM) platform for the capture of these CK? cells, as well as CK+ CTC phenotypes, in patient samples and animal models. CK? CTCs may be as prevalent as CK+ CTCs at different times in the progression of a patient’s cancer, in different types of cancers, and may potentially provide more useful information. The CEETM technology will enable greater research into these CK? CTCs and their clinical relevance. CK? CTCs may have undergone an epithelial?to?mesenchymal transition (EMT), thought to be a key process for metastasis.

Senior author of the paper, Anil Sood, MD, Vice Chairman for Translational Research in the departments of gynecologic oncology and cancer biology, and director of the Blanton?Davis ovarian cancer research program at The University of Texas MD Anderson Cancer Center, said “New technologies, and new ways of looking at a problem, often bring advances in understanding cancer biology, which may translate into better patient care. We are at the beginning of characterizing CTCs, and different CTC populations, as well as their roles in different cancers, or stages of cancer. We believe that the Biocept CEETM platform holds great potential in advancing towards this goal.”

Farideh Bischoff, Ph.D., Vice President of Translational Research at Biocept and a co? lead author on the paper with Chad Pecot, MD, from the Division of Cancer Biology at the MD Anderson Cancer Center, said, “Our collaboration with Dr. Sood and his colleagues at MD Anderson Cancer Center has been very important. Evaluating patient samples, with the benefit of the clinical perspective that Dr. Sood’s group provides, helps put the laboratory data into clinical context and is critical. We are very excited
about the potential of the Biocept technology platform in providing clinical information to physicians to aid them in the treatment of their patients with cancer.” Biocept’s first test, OncoCEE?BRTM for breast cancer, is commercially available through its CLIA lab. The test includes CTC enumeration and determination of HER2 status of the detected CTCs by fluorescence in situ hybridization (FISH), with determination of estrogen receptor (ER) and progesterone receptor (PR) status by immunocytochemical staining to be added to the test in 2012. Biocept recently announced an agreement with Clarient, Inc., a GE Healthcare Company, to collaborate on the commercialization of this test, which will be performed in Biocept’s CLIA laboratory. OncoCEE?BRTM is the first commercially available CTC test to include analysis of a specific treatment?associated biomarker.