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Rosetta Genomics and Biocept Advance Collaboration to Proof-of-Concept Studies Aimed at microRNA Profiling of Circulating Tumor Cells to Enhance Lung Cancer Diagnosis

Companies to take next step following successful completion of feasibility studies

PHILADELPHIA & REHOVOT, Israel & SAN DIEGO--(BUSINESS WIRE)-- Rosetta Genomics Ltd. (NASDAQ:ROSG), a leading developer and provider of microRNA-based and other molecular diagnostics, and Biocept, Inc. (NASDAQ:BIOC), a molecular diagnostics company commercializing and developing blood-based liquid biopsies to improve the detection and treatment of cancer, announce the successful completion of feasibility studies under a previously announced collaboration to evaluate the use of Biocept's patented microfluidic channel technology to extract circulating tumor cells (CTCs) from blood and Rosetta Genomics' technical expertise and proprietary qRT-PCR platform to characterize microRNAs isolated from those CTCs.

In the next phase of the collaboration, Rosetta and Biocept will test for markers currently offered by Rosetta, as well as pursue new markers. This joint proof-of-concept study will initially seek to determine whether lung cancer CTCs provide microRNA signatures similar to those from tissue biopsy as previously demonstrated by Rosetta through its Philadelphia-based, CLIA laboratory and that are in clinical use today. Biocept's technology allows for the study of tumor cells from a simple blood draw starting with the point-of-diagnosis and continuing throughout treatment. This includes valuable insights when a patient's disease progresses while on therapy due to emerging resistance, thus allowing the clinician to plot the optimal next course of treatment. MicroRNA analysis can provide unique insight into the biomarker profiles of these cells. Combining current and new microRNA profiles through the use of CTC capture could expand the role and utility of microRNA signatures in various solid tumor diseases.

Feasibility studies were conducted using two lung cancer cell lines: A549 and H727. The objectives were to determine whether Biocept's preservatives affect the microRNA profile of tested cell lines and to determine the feasibility of profiling microRNAs using Rosetta's platform in samples containing a small number of cells.

- In the first study, Biocept treated two cell lines with two types of preservatives. The cells were then sent to Rosetta for processing on its microarray platform to assess the effects of these preservatives on miRNA expression. The results indicated that the expression of Rosetta's lung cancer microRNA biomarker panel was unaffected.
- In the second study, Rosetta used its qRT-PCR platform to profile samples containing a small number of cancer cells (10-200 cells), using a select list of microRNAs based on the first study. The results showed that all tested microRNAs were detected in all samples tested.

"We are excited about advancing this collaboration to proof-of-concept studies and to determine opportunities for next steps in developing advanced diagnostics," noted Kenneth A. Berlin, President and Chief Executive Officer of Rosetta Genomics. "This could include next-generation versions of certain tests that would use CTCs from blood as ‘liquid biopsies' in place of current invasive approaches to provide clinicians with actionable information to guide patient treatment protocols. With proof-of-concept data, the joint platform could also be of value to strategic partners seeking ways to use liquid biopsies along with microRNA profiling and other downstream modalities, like next-generation sequencing mutational profiles, to predict and monitor responses to therapies."

"Our liquid biopsy approach has advantages over invasive and expensive surgical tissue biopsy procedures and we are encouraged about the potential to expand its use by combining our CTC and Rosetta's microRNA technologies," said Michael W. Nall, President and Chief Executive Officer of Biocept. "Liquid biopsy is particularly important in gaining biomarker information from patients with lung cancer, where patients are often very sick, making the collection of tissue biopsies impractical and often impossible. Our blood-based biopsies also address the limitation of tumor heterogeneity associated with tissue biopsies through the ability to capture a more complete look at the tumor's overall makeup."

About RosettaGX Cancer Testing Services

RosettaGX Cancer Tests are a series of microRNA-based and other molecular diagnostic testing services offered by Rosetta Genomics. RosettaGX Cancer Origin™ can accurately identify the primary tumor type in primary and metastatic cancer including cancer of unknown or uncertain primary (CUP). The mi-LUNG™ assay accurately identifies the four main subtypes of lung cancer using small amounts of tumor cells. The mi-KIDNEY™ assay accurately classifies the four most

common kidney tumors: clear cell renal cell carcinoma (RCC), papillary RCC, chromophobe RCC and oncocytoma. RosettaGX Reveal™, is a first-of-its-kind microRNA-based assay for the classification of indeterminate thyroid nodules. Rosetta's assays are designed to provide objective diagnostic data. In the U.S. alone, Rosetta estimates that 150,000 patients a year may benefit from the RosettaGX Cancer Origin test, 62,000 patients a year from the mi-KIDNEY assay, 222,000 patients a year from the mi-LUNG assay and 150,000 patients a year from RosettaGX Reveal™ for indeterminate thyroid FNAs. Rosetta's assays are offered directly by Rosetta in the U.S., and through distributors around the world. With the acquisition of PersonalizeDx in April 2015, Rosetta now offers a broader menu of molecular and other assays for bladder, lung, prostate and breast cancer patients. For more information, please visit www.rosettagx.com. Parties interested in ordering any of these tests can contact Rosetta at (215) 382-9000.

About Rosetta Genomics

Rosetta develops and commercializes a full range of microRNA-based and other molecular diagnostics. Rosetta's integrative research platform combining bioinformatics and state-of-the-art laboratory processes has led to the discovery of hundreds of biologically validated novel human microRNAs. Building on its strong patent position and proprietary platform technologies, Rosetta is working on the application of these technologies in the development and commercialization of a full range of microRNA-based diagnostic tools. Through the acquisition of PersonalizeDx, Rosetta offers core FISH, IHC and PCR-based testing capabilities and partnerships in oncology and urology that provide additional content and platforms that complement the Rosetta offerings. Rosetta's and PersonalizeDx's cancer testing services are commercially available through the Philadelphia, PA- and Lake Forest, CA-based CAP-accredited, CLIA-certified labs, respectively. For more information visit www.rosettagx.com.

About Biocept

Biocept, Inc. is a commercial-stage molecular diagnostics company that utilizes a proprietary technology platform and a standard blood sample to provide physicians with important prognostic and predictive information to enhance individual treatment of patients with cancer. Biocept's patented technology platform captures and analyzes circulating tumor DNA, both in CTCs and in plasma (ctDNA). Biocept currently offers assays for gastric cancer, breast cancer, lung cancer, colorectal cancer and melanoma, and plans to introduce CLIA-validated assays for prostate cancer and other solid tumors in the near term. For additional information, please visit www.biocept.com.

Rosetta Genomics Forward-Looking Statement Disclaimer

Various statements in this release concerning Rosetta's future expectations, plans and prospects, including but not limited toÂ statements that the collaboration between Rosetta and Biocept will be successful and expand the role and utility of microRNA signatures in treating cancer, that the collaboration between Rosetta and Biocept will lead to the development of advanced diagnostics, Rosetta's expectations regarding the market size for its diagnostic testing services and Rosetta's ability to develop and commercialize microRNA-based diagnostic tools constitute forward-looking statements for the purposes of the safe harbor provisions under The Private Securities Litigation Reform Act of 1995. Actual results may differ materially from those indicated by these forward-looking statements as a result of various important factors, including those risks more fully discussed in the "Risk Factors" section of Rosetta's Annual Report on Form 20-F for the year ended December 31, 2014Â as filed with the Securities and Exchange Commission (SEC). In addition, any forward-looking statements represent Rosetta's views only as of the date of this release and should not be relied upon as representing its views as of any subsequent date. Rosetta does not assume any obligation to update any forward-looking statements unless required by law.

Biocept Forward-Looking Statements Disclaimer Statement

This release contains forward-looking statements that are based upon current expectations or beliefs, as well as a number of assumptions about future events. Although Biocept believes that the expectations reflected in the forward-looking statements and the assumptions upon which they are based are reasonable, Biocept can give no assurance that such expectations and assumptions will prove to have been 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 release are not strictly historical, including without limitation statements as to the collaboration between Rosetta and Biocept being successful and expanding the role and utility of microRNA signatures in treating cancer, the collaboration between Rosetta and Biocept leading to the development of advanced diagnostics, Biocept being able to improve the detection and treatment of cancer and enhance individual treatment of patients with cancer, 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 Biocept's SEC filings. The effects of such risks and uncertainties could cause actual results to differ materially from the forward-looking statements contained in this release. Biocept does not plan to update any such forward-looking statements and expressly disclaims any duty to update the information contained in this press release except as required by

law. Readers are advised to review Biocept's filings with the SEC, which can be accessed over the Internet at the SEC's website located at www.sec.gov.

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