News Release

Rosetta Genomics Enters Collaboration with Clalit Health Services' Rabin Medical Center for microRNA-based Assay for Chronic Allograft Dysfunction Following Kidney Transplantation

Combines Rabin's expertise in transplantation with Rosetta's world class microRNA biomarker platform

PRINCETON, N.J. and REHOVOT and Petah Tikvah, Israel (March 24, 2014) – Rosetta Genomics Ltd. (NASDAQ: ROSG), a leading developer and provider of microRNA-based molecular diagnostics, reports that the Company has entered a joint collaboration with Clalit Health Services' Rabin Medical Center-Beilinson Campus (Petah Tikvah, Israel), a non-profit corporation, for the development of a non-invasive, microRNA-based, assay for the diagnosis of chronic allograft dysfunction (CAD or chronic rejection) following kidney transplantation.

Under the terms of the agreement, Rosetta will partially fund the research and receive an exclusive worldwide license to the technology, including the right to sublicense the technology. The project is initially planned for a two-year period. Joint patents will be co-owned by Rosetta and Mor, a private corporation incorporated in Israel that is Clalit Health Management Organization's technology transfer company.

Prof. Eytan Mor, Director of the Department of Organ Transplantation, Rabin Medical Center, is the Principal Investigator of the upcoming proof of concept (POC) study to identify a microRNA signature for CAD in blood and/or urine and to assess the feasibility of developing a microRNA-based assay for the non-invasive diagnosis of CAD.

Chronic rejection is currently diagnosed only by histological examination of a tissue sample obtained by biopsy, which is expensive, unpleasant for the patient and unsuitable for serial clinical use due to the risk of bleeding and other complications. Furthermore, morphological changes may be patchy, difficult to interpret and subject to observer bias. Therefore, it is widely accepted that measurement of chronic graft injury is imprecise.

"Despite an improvement in kidney transplant survival in the early post-transplantation stage, there still remains the need for a sensitive, etiology-specific and non-invasive method for monitoring the function of the renal allograft in the late post-transplantation period, where chronic rejection is an almost universal finding," noted Dr.. Alexander Yussim, a leading transplant immunology researcher from Beilinson's transplant department. " The non-invasive test we would like to develop could have potential to enable diagnosis at an earlier stage when this information could alter the choice of therapy and, ultimately, improve outcomes."

"This collaboration provides Rosetta with the opportunity to combine our leading microRNA

biomarker technology platform with the expertise of leading organ transplant experts to identify clinically meaningful biomarkers to assess the possibility of developing a non-invasive diagnostic that could provide transplant experts with important information that could help guide their treatment choices to the benefit of their patients," stated Kenneth A. Berlin, President and Chief Executive Officer of Rosetta Genomics. "Following successful results in the POC study, we intend to move forward toward the development and validation of a possible selected microRNA signature. We believe this targeted audience of transplant clinicians can be reached with a small, dedicated commercial team and we aim to launch the product in 2017."

About Chronic Allograft Dysfunction
Kidney transplantation is widely accepted as the treatment of choice for end-stage renal disease. The number of patients receiving renal replacement therapy worldwide is estimated at more than 1.4 million and is growing by approximately 8% annually. Advances in post-transplant care including the introduction of new potent immunosuppressive drugs have led to a dramatic decrease in acute kidney rejection. However, long-term stable graft function remains elusive, and in the past decade, progressive chronic deterioration, or chronic rejection, and the resulting inevitable graft loss has become a major problem in organ transplantation.

The incidence of rejection is high, at a rate of 30% of all grafts in the first post-transplant year, progressing to 50% in year five and reaching nearly 100% of functioning grafts 10 years after transplantation.

About Rosetta Cancer Testing Services
Rosetta Cancer Tests are a series of microRNA-based diagnostic testing services offered by Rosetta Genomics. The Rosetta Cancer Origin Test™ can accurately identify the primary tumor type in primary and metastatic cancer including cancer of unknown or uncertain primary (CUP). Rosetta Mesothelioma Test™ diagnoses mesothelioma, a cancer connected to asbestos exposure. The Rosetta Lung Cancer Test™ accurately identifies the four main subtypes of lung cancer using small amounts of tumor cells. The Rosetta Kidney Cancer Test™ accurately classifies the four most common kidney tumors: clear cell renal cell carcinoma (RCC), papillary RCC, chromophobe RCC and oncocytoma. Rosetta's assays are designed to provide objective diagnostic data; it is the treating physician's responsibility to diagnose and administer the appropriate treatment. In the U.S. alone, Rosetta Genomics estimates that 200,000 patients a year may benefit from the Rosetta Cancer Origin Test™, 60,000 from the Rosetta Mesothelioma Test™, 65,000 from the Rosetta Kidney Cancer Test™ and 226,000 patients from the Rosetta Lung Cancer Test™. The Company's assays are offered directly by Rosetta Genomics in the U.S., and through distributors around the world. For more information, please visit www.rosettagenomics.com. Parties interested in ordering the test can contact Rosetta Genomics at (215) 382-9000 ext. 309.

About Rosetta Genomics
Rosetta develops and commercializes a full range of microRNA-based molecular diagnostics. Founded in 2000, 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. Rosetta's cancer

testing services are commercially available through its Philadelphia-based CAP-accredited, CLIA-certified lab.

Forward-Looking Statement Disclaimer
Various statements in this release concerning Rosetta's future expectations, plans and prospects, including, but not limited to the possibility that the study will identify a microRNA signature for CAD and that the study will successfully assess the feasibility of developing a microRNA-based assay for the non-invasive diagnosis of CAD, and that the POC study will be successful, as well as that Rosetta will develop and validate a non invasive assay that could provide transplant experts with important information that could help guide their treatment choices to the benefit of their patients 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, 2012 as filed with the 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.

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