

Rosetta Genomics Announces Data Published in *Leukemia Research*

Study Demonstrates Ability of Rosetta's microRNA Platform to Distinguish between Poor and Favorable Prognosis in Diffuse Large B-Cell Lymphoma

PRINCETON, N.J. and REHOVOT, Israel (April 20, 2015) – Rosetta Genomics Ltd. (NASDAQ: ROSG), a leading developer and provider of microRNA-based molecular and other diagnostics, announces that data highlighting its microRNA platform technology was published in *Leukemia Research* in an article entitled, “microRNA signature is indicative of long term prognosis in diffuse large B cell lymphoma.” The article can be accessed online at www.lrjournal.com.

The study compared microRNA (miR) expression between patients with diffuse large B-cell lymphoma (DLBCL) who had a poor prognosis with those who had a favorable prognosis. DLBCL accounts for 30-40% of all adult non-Hodgkin's lymphomas and is heterogeneous in terms of clinical features and prognosis.

The study group included 83 patients with DLBCL. miR signature from tissue biopsies was compared between patients who relapsed within nine months from commencement of treatment (defined as poor prognosis, n=43) and those with disease-free survival of at least five years (defined as good prognosis, n=40). RNA was analyzed using Rosetta's custom microarrays. Quantitative real-time polymerase chain reaction (qRT-PCR) was used for technical validation of microarray results. Eight miRs were found to be differently expressed between the two prognostic groups.

In the poor prognosis group, hsa-miR-17-5p, hsa-miR-19b-3p, hsa-miR-20a-5p and hsa-miR-106a-5p were found to be up-regulated, while hsa-miR-150-5p, hsa-miR-342-3p, hsa-miR-181a-5p and hsa-miR-140-3p were found to be down-regulated, compared with the good prognosis group.

“Our data are in agreement with previous findings showing that miR signature is predictive of prognosis for patients with DLBCL, although with different miRs achieving statistical significance,” noted the study's lead author, Prof. Meir Lahav, M.D., Institute of Hematology, Davidoff Centre, Rabin Medical Centre, Beilinson Hospital, Petah Tikva, Israel and Sackler School of Medicine, Tel Aviv University, Tel Aviv, Israel.

“These are exciting data as they illustrate our proprietary platform's ability to identify microRNA signatures in hematologic malignancies that can differentiate poor and favorable prognostic groups,” noted Kenneth A. Berlin, President and Chief Executive Officer of Rosetta Genomics. “Importantly, these data complement our broader commitment to expand our commercial offerings and clinical pipeline in oncology diagnostics.”

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). 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. In the U.S. alone, Rosetta Genomics estimates that 200,000 patients a year may benefit from the Rosetta Cancer Origin Test™, 62,000 from the Rosetta Kidney Cancer Test™ and 222,000 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. In addition to its proprietary products, the Company markets the Rosetta Genomics PGxOne™ and EGFR and KRAS tests for Admera Health. With the recent acquisition of PersonalizeDx, the company now offers a broader menu of molecular and other assays for lung, bladder, prostate and breast cancer patients. For more information, please visit www.rosettagenomics.com. Parties interested in ordering any of these tests 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. PersonalizeDx's core FISH, IHC and PCR-based testing capabilities and partnerships in oncology and urology 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.

Forward-Looking Statement Disclaimer

Various statements in this release concerning Rosetta's future expectations, plans and prospects, including without limitation, statements relating to Rosetta's proprietary platform's ability to identify microRNA signatures in hematologic malignancies that can differentiate poor and favorable prognostic groups and the extent to which this data complements the possibilities for Rosetta's expanding its commercial offerings and/or clinical pipeline, 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, 2014 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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