News Release

Rosetta Genomics Announces Acceptance for Publication by *Molecular Cancer* of Rosetta Cancer Origin Test Manuscript

Fifth Validation Study Demonstrating Ability to Identify Tumor Origin in Patients with Cancer of Unknown or Uncertain Primary Shows 92% Accuracy, Highest Published Level to Date

PHILADELPHIA and REHOVOT, Israel (June 6, 2013) – Rosetta Genomics Ltd. (NASDAQ: ROSG), a leading developer and provider of microRNA-based molecular diagnostics, announces that a manuscript reporting data validating the clinical utility of the Rosetta Cancer Origin Test™ (formerly miRview® mets2) to identify the tumor of origin in Cancer of Unknown or Uncertain Primary (CUP) has been accepted for publication in the peer-reviewed on-line journal *Molecular Cancer*. The article, titled "Novel microRNA-based assay demonstrates 92% agreement with diagnosis based on clinicopathologic and management data in a cohort of patients with carcinoma of unknown primary," represents the seventh peer-reviewed publication relating to our CUP assays, and the fifth peer-reviewed publication relating to post market validation studies demonstrating the Cancer Origin Test's ability to identify tumor origin in CUP with 92% concordance, the highest level of accuracy of any similar study published to date.

The manuscript discusses the performance of the Cancer Origin Test, an assay utilizing 64 microRNAs to identify 42 tumor types, in formalin-fixed paraffin-embedded (FFPE) samples from 84 CUP patients The results showed concordance with the final diagnosis in 92% of patients; representing an improvement in agreement of 22 percentage points from presentation diagnosis to final diagnosis, which final diagnosis was achieved after more precise clinical and pathological data was added to the data relied upon for the patient's initial assessment.

"MicroRNAs are particularly well-suited as biomarkers for identifying tumor origin as their expression levels and profile reflects tissue origin. Importantly, microRNAs have been shown to be highly stable in tissue blocks, the most common and readily available specimen type in pathology. Profiling microRNA from FFPE tissue has been described to be superior to mRNA profiling, since the latter are prone to extensive degradation in FFPE samples," stated Kenneth A. Berlin, President and Chief Executive Officer of Rosetta Genomics. "These data are important as they continue to confirm the clinical utility and extremely high level of concordance with the final diagnosis in real-world CUP patients. The availability and accuracy of our Cancer Origin Test underscores why the uncertainty of CUP is no longer acceptable."

According to E. Robert Wassman, MD, FAAP, FACMG, Rosetta Genomics' Chief Medical Officer, "CUP presents clinicians with a diagnostic as well as a management challenge. The identification of tumor origin in metastatic patients is crucial for planning patient management and care, since many oncology treatments include cancer-specific therapies. Moreover, these

specific therapies and related targeted therapies have been shown to lead to increased survival of patients with advanced cancers of known origin. Consequently, it is not a matter of whether to use microRNA profiling, but when to use it."

About Rosetta Cancer Testing Services (formerly the miRview® product line)
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. Frost & Sullivan recognized Rosetta Genomics with the 2012 North American Next Generation Diagnostics Entrepreneurial Company of the Year Award.

Forward-Looking Statement Disclaimer
Various statements in this release concerning Rosetta's future expectations, plans and prospects, including without limitation, Rosetta's development or commercialization of molecular diagnostics, the market acceptance of Rosetta's cancer testing services, particularly the Rosetta Cancer Origin Test™, Rosetta's capitalization of its microRNA platform, Rosetta's patent position and Rosetta's development of personalized medicine products and services 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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