

News Release

Rosetta Genomics Granted U.S. Patent Allowance for Use of Gene Expression Signature for Classification of Kidney Tumors

PHILADELPHIA, REHOVOT, Israel (January 25, 2016) – Rosetta Genomics Ltd. (NASDAQ: ROSG), a leading developer and provider of microRNA-based and other molecular diagnostics, today announces that the United States Patent and Trademark Office (USPTO) has granted a patent allowance for patent application No. 14/168,981, relating to “Gene Expression Signature for Classification of Kidney Tumors.” The allowed patent claims a method for distinguishing four different types of kidney cancer: oncocytoma, clear cell renal cell carcinoma (RCC), papillary RCC, and chromophobe RCC in a human subject with renal cancer, through the expression profile of 29 microRNAs, and particularly hsa-miR-139-5p, detected by real time polymerase chain reaction (RT-PCR).

This U.S. patent allowance complements the intellectual property protection for Rosetta’s kidney cancer test, which is covered in U.S. patent 9,068,232, granted in July of 2015. The patent is owned jointly with Tel Hashomer Medical Research Ltd., the technology transfer company of the Chaim Sheba Medical Center in Israel.

“This patent allowance expands our leading intellectual property position in microRNA technology, and further protects our mi-KIDNEY™ sub-classification assay,” noted Kenneth A. Berlin, President and Chief Executive Officer of Rosetta Genomics. “Kidney cancer is among the 10 most common cancers in both men and women with approximately 61,000 new cases of primary kidney tumors and 14,000 deaths per year in the U.S. Unfortunately the incidence of primary kidney tumors is rising and so is the number of biopsies, yet differential diagnosis between various types of kidney tumors has been challenging. We are encouraged by the potential for this assay as recent studies have shown that as many as 20% to 25% of kidney tumors following nephrectomy turn out to be benign oncocytomas. Improved diagnoses of oncocytomas might avoid unnecessary surgeries, which would represent an opportunity to reduce costs and avoid nephrectomy-related complications. Equally important is our assay’s ability to classify the more aggressive subtypes of kidney cancer in order for oncologists to provide optimal therapeutic management.”

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 is integrating groundbreaking diagnostic platforms to accelerate the implementation of precision medicine in clinical routine. Pioneers in the microRNA biomarkers space, Rosetta has combined bioinformatics and innovative laboratory processes to develop and commercialize a full range of molecular diagnostic tests. 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 the Philadelphia, PA- and Lake Forest, CA-based CAP-accredited, CLIA-certified labs, respectively. For more information visit www.rosettagx.com.

Rosetta Genomics Forward-Looking Statement Disclaimer

Various statements in this release concerning Rosetta's future expectations, plans and prospects, including but not limited to statements with respect to Rosetta's assays and their potential to reduce unnecessary surgeries and costs, the incidence of primary kidney tumors, the strength of Rosetta's intellectual property protection for its assays and tests and the commercial viability of RosettaGx™ Kidney sub-classification assay 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 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.

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