ROSETTAGENOMICS™
Revealing Genomic Answers

Rosetta Genomics Provides Update on RosettaGX Reveal™

Continued ramp in samples processed and record commercial collections put RosettaGX Reveal on $4 million annual run rate

Independent clinical data in support of the competitive performance of the Reveal assay in classifying indeterminate thyroid nodules were presented at the American Society of Cytopathology Annual Scientific Meeting

PHILADELPHIA and REHOVOT, Israel (November 20, 2017) – Rosetta Genomics Ltd. (NASDAQ: ROSG), a genomic diagnostics company that improves treatment decisions by providing timely and accurate diagnostic information to physicians, provides an update on the clinical and commercial progress for RosettaGX Reveal™ ("Reveal"), the Company's proprietary, thyroid microRNA classifier for classifying indeterminate thyroid nodules ("ITN"). Reveal is a first-of-its-kind assay offering testing from a routinely prepared cytology slide that analyzes the exact cells used to make the original ITN diagnosis.

The Company reports that Reveal revenues for the month of October 2017 of approximately $330,000, represent nearly a $4 million annual revenue run rate. The ramp in revenues can be attributed, in part, to record commercial collections that were driven by increased sample volumes and higher per claim payments. The record monthly revenue in October follows on the heels of record third quarter revenue of approximately $860,000 in Reveal revenues , which was more than three times Reveal revenue booked for the third quarter of 2016 and a 24% increase compared with Reveal revenues in the prior quarter.

In addition, favorable data from a new independently-conducted study comparing Reveal with another marketed molecular test for classifying ITNs were presented at the recent American Society of Cytopathology ("ASC") Annual Scientific Meeting that took place from November 10-13, 2017 in Phoenix, Arizona.

In the comparative study titled, "*Utilization of Direct Smears of Thyroid Fine Needle Aspirates for Ancillary Molecular Testing: A Comparison of Two Proprietary Testing Platforms,*" investigators reported that Reveal "demonstrated a specificity of 86%, which is higher than the industry reported value of 72%.[1] In comparison, the other product showed a specificity of 71%."

"We are especially pleased to note the increasing revenue and enhanced commercial collections for Reveal, particularly when recently reported revenue data showed a year-over-year decline in revenue for the current market leading ITN classification assay," noted Kenneth A. Berlin, President and Chief Executive Officer of Rosetta Genomics.

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1 Lithwick-Yanai G, Dromi N, Shtabsky A, et al. Multicentre validation of a microRNA-based assay for diagnosing indeterminate thyroid nodules utilising fine needle aspirate smears. J Clin Pathol. 2016; 0: 1-8.

"The new data presented at ASC add to the growing body of clinical data demonstrating Reveal's superior performance in classifying ITNs compared with a number of the other testing platforms on the market. Reveal's comparatively high specificity and high negative predictive value allow the assay to identify a large number of patients with truly benign ITNs and may help prevent up to 75% of unnecessary thyroid surgeries. We believe these performance advantages, combined with Reveal's convenience, continue to strongly resonate with clinicians, allowing us to win business from the competition and to expand Reveal sales into the substantial part of the market that remains untapped.

"Reveal is a truly differentiated assay being promoted in an established $350 million U.S. market that has substantial room for further penetration. The expanding body of data in support of Reveal's superior performance will enhance our efforts to increase demand for, and secure additional reimbursement and access to, Reveal, which we believe will transform thyroid cancer diagnosis to benefit patients, physicians and payers," added Mr. Berlin.

About Rosetta Genomics

Rosetta is pioneering the field of molecular diagnostics by offering rapid and accurate diagnostic information that enables physicians to make more timely and informed treatment decisions to improve patient care. Rosetta has developed a portfolio of unique diagnostic solutions for oncologists, urologists, endocrinologists, cytopathologists and other specialists to help them deliver better care to their patients. RosettaGX Reveal™, a Thyroid microRNA Classifier for classifying indeterminate thyroid nodules, as well as the full RosettaGX® portfolio of cancer testing services are commercially available through the Company's Philadelphia, PA- and Lake Forest, CA-based CAP-accredited, CLIA-certified labs.

Forward-Looking Statement Disclaimer

Various statements in this release concerning Rosetta's future expectations, plans and prospects containing the words "expect," "believe," "will," "may," "should," "project," "estimate," "anticipated," "scheduled," and like expressions, and the negative thereof, 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 risks and uncertainties, including, but are not limited to the following: we will require substantial additional funds to continue our operations and, if additional funds are not available, we may need to significantly scale back or cease our operations; we have a history of losses and may never be profitable; if we are unable to expand sales of our diagnostic tests in the United States, it would have a material adverse effect on our business and financial condition; if we are unable to find profitable strategic alternatives for our PersonalizeDx diagnostic testing and services business, it would have a material adverse effect on our business and financial condition; the intensely competitive biotechnology market could diminish demand for our tests and products; the market may not be receptive to any diagnostic tests or therapeutic products using our microRNA technology; we currently have limited sales, marketing or distribution experience and may in the future depend significantly on third parties to commercialize microRNA-based diagnostic tests or therapeutic products we may develop; we are largely dependent upon our distributors for the success of commercialization of our current diagnostic tests; health insurers and other third-party payors may decide not to cover our diagnostic products or may provide inadequate reimbursement, which could jeopardize our commercial prospects; because of Medicare billing rules, we may not receive reimbursement for all

tests provided to Medicare patients; if we fail to comply with our obligations under any licenses or related agreements, we could lose license rights that may be necessary for developing microRNA-based diagnostics and therapeutics; if we fail to comply with the complex federal, state, local and foreign laws and regulations that apply to our business, we could suffer severe consequences that could materially and adversely affect our operating results and financial condition; we contract with a single manufacturer for the purchase of microarray chips for certain tests, and the failure of this manufacturer to supply sufficient quantities on a timely basis could have a material adverse effect on our business; and other risk factors discussed under the heading "Risk Factors" in Rosetta's most recently filed Annual Report on Form 20-F, 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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