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News Release

Rosetta Genomics Announces Publication of Data Confirming Analytical Validity of its Novel Thyroid Nodule Classification Assay

RosettaGX Reveal™ is the first commercial test validated to analyze the same thyroid cells on which the initial indeterminate diagnosis was based

PHILADELPHIA, PA. and REHOVOT, Israel (May 26, 2016) – Rosetta Genomics Ltd. (NASDAQ: ROSG), a leading developer and provider of microRNA-based and other molecular diagnostics, announced that data from the analytical validation of the Company's novel, microRNA-based assay for the classification of indeterminate thyroid nodules have been published online in the peer-reviewed journal, *Cancer Cytopathology*. The article, "Analytical Validity of a microRNA-based Assay for Diagnosing Indeterminate Thyroid FNA Smears from Routinely Prepared Cytology Slides," highlights the robustness of RosettaGX Reveal™, a test that stratifies indeterminate thyroid lesions as "benign," "suspicious for malignancy by microRNA" or "positive for medullary carcinoma" in preoperative Fine Needle Aspirate (FNA) by utilizing existing cytology smear samples. The article can be accessed here.

The article reports on more than 800 FNA slides that were evaluated for intra-nodule concordance, effect of stain type, minimal acceptable RNA amounts, performance on low number of thyroid cells, effect of time since sampling, analytical sensitivity, specificity, and reproducibility. The results showed that the assay can be run on FNA slides for which as little as 1% of the cells are thyroid epithelial cells as was the case with most of the samples. Stain type and/or the length of time between FNA sampling and processing did not affect assay performance. Importantly, the data presented show that while the assay can correctly classify samples with a low number of thyroid cells, it does not mistakenly diagnose samples that do not contain any thyroid material.

The study authors concluded that, "Given the assay's performance, robustness and utilization of routinely prepared FNA slides, it has the potential to provide valuable aid for physicians in the diagnosis of thyroid nodules."

"In addition to its excellent performance, RosettaGX Reveal has significant advantage to current assays on the market because it can work off the same cytology slides that were created to perform the initial diagnosis, thus eliminating the risks, added patient stress, and unnecessary pain associated with additional fine needle passes. Importantly, RosettaGX Reveal can evaluate the same cells that were already examined," noted Christopher J. VandenBussche M.D., The Johns Hopkins University School of Medicine, Baltimore, MD and an author of the publication.

"The published data add to the growing body of clinical evidence, including previously reported clinical validity data, that support the use of RosettaGX Reveal to help resolve ambiguity in an indeterminate thyroid cancer diagnosis and thus reduce unnecessary surgeries," said Kenneth A. Berlin, President and Chief Executive Officer of Rosetta Genomics.

"The analytical validation data published today reinforce the quality and scientific rigor behind our thyroid microRNA classifier and should help accelerate commercial uptake of this important assay for which we have seen a three-fold increase in samples processed from March to April of this year. These positive data will also help us achieve our stated goal to process 200-400 RosettaGX Reveal samples per month by the end of this year. In addition, this publication, along with other papers we expect to have published, will advance our efforts to secure additional reimbursement and access to RosettaGX Reveal, which we believe will transform thyroid cancer diagnosis to benefit patients, physicians and payers.

"These published data demonstrate the strong analytical sensitivity and reproducibility of RosettaGX Reveal under a range of conditions and variables. These include consistent test performance despite common sample variations, such as RNA quantity and potential blood contamination that the classifier is likely to encounter in clinical use. The study also shows that the classifier results are reproducible across operators, processing runs, reagent lots and laboratories.

"This is the first peer-reviewed publication for RosettaGX Reveal and we have already submitted a second paper for publication and are working on a number of additional studies for RosettaGX Reveal. With this paper, we now have 53 peer-reviewed publications relating to, among other things, the seven microRNA-based assays that we have developed and commercially launched from our leading and proprietary microRNA biomarker platforms. The large number of peer-reviewed publications we have enjoyed to date further demonstrates the robustness, versatility and prolific potential of these platforms," concluded Mr. Berlin.

About Rosetta Genomics

Rosetta develops and commercializes a full range of microRNA-based and other molecular diagnostics. 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. Through the acquisition of PersonalizeDx, the Company now offers core FISH, IHC and PCR-based testing capabilities and partnerships in Pathology, Oncology and Urology that provide additional content and platforms that complement Rosetta's microRNA and Next-Gen Sequencing offerings. RosettaGX Reveal™, a Thyroid microRNA Classifier for the diagnosis of indeterminate thyroid FNA smears, 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,. For more information visit www.rosettagx.com.

Forward-Looking Statement Disclaimer

Various statements in this release concerning Rosetta's future expectations, plans and prospects including without limitation, statements relating to test adoption and sample acquisition, benefits to patients, physicians and payers, securing reimbursement, expansion of commercialization, future publications, and transformation of thyroid cancer diagnosis 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, 2015 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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