

Rosetta Genomics to Partner with FNAPath to Provide Centralized Laboratory Testing Services for Thyroid Cancer

Centralized laboratory with expertise in thyroid cancer cytopathology to enhance Rosetta's new assay offering for indeterminate thyroid cancer cases

Rosetta expects to release performance data on its new assay at the upcoming 15th International Thyroid Congress

PRINCETON, N.J. and REHOVOT, Israel (September 30, 2015) – Rosetta Genomics Ltd. (NASDAQ: ROSG), a leading developer and provider of microRNA-based and other molecular diagnostics, announces that the Company has reached an agreement-in-principle with FNAPath of Little Rock, Arkansas, under which Rosetta Genomics will provide endocrinologists initially testing their patients for thyroid cancer with the option of using a pathologist or laboratory of their own choosing, or FNAPath, a centralized laboratory with an expertise in diagnosing thyroid cancer. In the event of an indeterminate result, the sample would then be tested with RosettaGx Thyroid Reveal™, the Company's thyroid neoplasia assay for the differential diagnosis of indeterminate fine needle aspirates (FNAs).

Currently, the market-leading test for indeterminate thyroid cancer FNAs in most cases requires physicians to send their patients' FNA samples to that company's designated centralized laboratory, thereby preventing physicians from working with the local pathologist of their choice, and in the case of an indeterminate result, requiring two additional FNA samples be drawn in order to run their test.

"Interpretation of FNA samples from thyroid nodules is not always straightforward, which leads to an indeterminate result in up to 30% of the samples. Many patients with indeterminate results are sent to surgery as a precaution, despite the fact the majority of these cases are benign. This exposes patients to unnecessary surgical risk and costs the system hundreds of millions of dollars," stated Kenneth A. Berlin, President and Chief Executive Officer of Rosetta Genomics.

"Our goal with this partnership is to give endocrinologists the option of working with the pathologists they know and trust for the initial interpretation of the sample, or to use our designated experts. This open platform eliminates the penalty of having to secure another FNA from the patient in order to further examine the sample for a more accurate diagnosis and classification. In addition, the RosettaGx Thyroid Reveal test can be run on very small samples and smears. This flexibility, coupled with other features and benefits of this assay, should provide considerable competitive advantage for RosettaGx Thyroid Reveal," said Douglas Sites, Executive Vice President, Sales and Marketing for Rosetta Genomics.

Commenting on the partnership, Nicole Massoll, M.D., medical director for FNAPath Laboratories, said, "We are especially pleased to be working with Rosetta Genomics' cutting-edge diagnostic assay, RosettaGx Thyroid Reveal, as we believe it has the potential to be the most

effective and efficient assay for the accurate diagnosis and classification of indeterminate thyroid FNAs. One of the advantages of using RosettaGx Thyroid Reveal is that we can work off the same cytology slides that are initially created to perform the upfront diagnosis, thus eliminating the risks, morbidity and unnecessary pain associated with a second fine needle passage into the patient's neck and also allowing Rosetta's test to be run on the very cells that the cytopathologist has already examined. We believe this partnership will give physicians the optionality they want with the superior test results they need for their patients with an indeterminate thyroid cancer diagnosis."

Rosetta Genomics expects to introduce its RosettaGx Thyroid Reveal assay and to report on its clinical performance at the upcoming 15th International Thyroid Congress (ITC) and 85th Annual Meeting of the American Thyroid Association (ATA) taking place October 18-23, 2015 in Lake Buena Vista, Florida. The ITC is a collaborative meeting held every fifth year by the four world thyroid associations: ATA, Asia-Oceania Thyroid Association (AOTA), European Thyroid Association (ETA) and Latin American Thyroid Society (LATS). The ITC will bring together the international community of endocrine specialists, surgeons and other health professionals to present and discuss the latest research and developments in thyroidology. The four international thyroid associations combine their efforts to contribute to this one-of-a-kind, state-of-the-science experience.

"We look forward to introducing RosettaGx Thyroid Reveal at the ITC, as it is the largest meeting of endocrinologists and others dedicated to making advances for patients with thyroid disease. It is particularly fortuitous for Rosetta that this Congress, which takes place once every five years, coincides with our expected market introduction and presentation of results from our validation testing for RosettaGx Thyroid Reveal. We believe that RosettaGx Thyroid Reveal's clinical benefits and competitive advantages will be of interest to this audience of thyroid specialists," added Mr. Berlin.

About Rosetta Genomics

Rosetta develops and commercializes a broad range of microRNA-based and other high-value 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 also offers core FISH, IHC and PCR-based testing capabilities and partnerships in oncology and urology that provide additional content and platforms that complement the Rosetta offerings. Rosetta's cancer testing services are commercially available through the Philadelphia, PA- and Lake Forest, CA-based CAP-accredited, CLIA-certified labs. For more information visit www.rosettagenomics.com.

Forward-Looking Statement Disclaimer

Various statements in this release concerning Rosetta's future expectations, plans and prospects including, but not limited to statements relating to the expected timing of the launch of Rosetta Genomics' thyroid assay, Rosetta Genomics executing a definitive agreement with FNAPath, Rosetta Genomics' thyroid assay providing a more accurate diagnosis and classification for Thyroid tumors, Rosetta Genomics' thyroid assay reducing the amount of FNA 'passes' into a patient's neck and Rosetta Genomics' thyroid assay being the most effective and efficient assay for the accurate diagnosis and classification of indeterminate thyroid FNAs, 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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