

News Release

RosettaGX Reveal™ Thyroid miRNA Classifier Now available to be Utilized on ThinPrep® Samples

Expected to increase demand by more than 50% over next several months

Updates on Commercial Progress with Reveal

PHILADELPHIA and REHOVOT, Israel (September 7, 2016) – Rosetta Genomics Ltd. (NASDAQ: ROSG), a leading developer and provider of microRNA-based and other molecular diagnostics, today announces that the Company's first-of-its-kind microRNA classifier for indeterminate thyroid nodules, RosettaGX Reveal™ ("Reveal"), is now available to be utilized on ThinPrep® samples.

"We conducted a study to confirm that RosettaGX Reveal produces the same high level performance on ThinPrep prepared slides as it does on a direct smear from a thyroid Fine Needle Aspirate ("FNA") biopsy. We are delighted that the data from this study demonstrate concordance between RosettaGX Reveal when used on ThinPrep, as it did on FNA smears," stated Kenneth A. Berlin, President and Chief Executive Officer of Rosetta Genomics. "ThinPrep has grown in popularity in recent years due to the convenience it offers the clinicians that utilize this method for FNA cytology. The study results confirm that our molecular microRNA analysis is feasible on ThinPrep slides with the advantage of not requiring additional FNA passes or fine needle procedures. Unlike other tests in this market, Reveal is the only test that allows us to analyze the exact cells that were used to make the initial indeterminate cytology diagnosis. We believe offering customers the option of using Reveal with either ThinPrep or direct smears will expand our customer base and potentially increase our test volumes by greater than 50 percent over the next several months."

"With the anticipated boost to demand for Reveal from new customers who currently use ThinPrep, we remain confident in our ability to achieve a minimum of 200 samples per month by the end of 2016. We received nearly 100 samples last month and our sales team continues to convert new accounts to Reveal, including several large volume accounts who have the potential to not only order a large number of Reveal tests but also to utilize tests from our other product lines. In addition, we have been able to convert existing customers of our other product lines to become users of our Reveal test. Our unique ability to solve customer testing needs across different areas such as solid tumor profiling, urologic cancers and indeterminate thyroid FNAs with several proprietary and leading assays positions us well with larger accounts. These large accounts benefit from reducing the number of laboratories they need to work with across several diagnostic areas by working exclusively with Rosetta Genomics for their testing needs in these areas," added Mr. Berlin.

ThinPrep is a registered trademark of Hologic, Inc.

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, but not limited to statements relating to increasing demand and testing volume by more than 50% over the next several months, increasing testing volume for Reveal and other Rosetta products, expanding the customer base, converting additional accounts, and achieving a minimum of 200 samples per month by the end of 2016 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 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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