Rosetta Genomics to Reduce Operating and Other Expenses

Full Plan Implementation to Decrease Operating Expenses by Nearly $5 Million

PHILADELPHIA and REHOVOT, Israel (September 5, 2017) – Rosetta Genomics Ltd. (NASDAQ: ROSG), a genomic diagnostics company that improves treatment decisions by providing timely and accurate diagnostic information to physicians, announces implementation of a plan to reduce annual operating expenses by approximately $1.7 million initially. These cost control initiatives, in combination with the proposed divestiture of the PDx business, are expected to result in an aggregate annual operating expense reduction of $4.8 million or approximately 30%. The plan consists of reductions in employee and contractor headcount across several departments and expense control in various areas of discretionary spending. These measures are being implemented to improve the Company's path to profitability

"We are taking these steps in order to concentrate our resources on accelerating volume and revenue increases for our RosettaGX Reveal™(Reveal) assay for classifying indeterminate thyroid nodules (ITNs), which is a product we believe offers both near- and long-term significant growth opportunities," stated Kenneth A. Berlin, President and Chief Executive Office of Rosetta Genomics. "We remain committed to growing Reveal utilization for the classification of ITNs, where many patients with indeterminate results undergo surgery as a precaution despite the fact that up to 80% of those cases are benign. This exposes patients to unnecessary surgical risk and costs the healthcare system hundreds of millions of dollars. We believe that Reveal, with its proprietary classifier algorithm and microRNA signature, can help prevent up to 75% of unnecessary thyroid surgeries," added Mr. Berlin.

"On behalf of the Board and management, I would like to thank our dedicated employees for their commitment, hard work and contributions. The decision to eliminate positions is extremely difficult but necessary so that we can progress our commercial efforts for our leading assays for the benefit of patients, providers and payers and advance our path to profitability," concluded 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 timelier and more 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 the diagnosis of cancer in 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 Statements

Various statements in this release concerning Rosetta's future expectations, plans and prospects including, but not limited to statements 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: although we are engaged in efforts to sell the PDx, we may not complete a transaction in a timely manner or at all; 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; 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 payers 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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