ROSETTAGENOMICS™
Revealing Genomic Answers

News Release

Rosetta Genomics Reports 2016 First Quarter Financial Results

Record Quarterly Clinical Testing Revenues of $2.6 million

Conference call begins today at 10:00 a.m. Eastern time

PHILADELPHIA and REHOVOT, Israel (May 19, 2016) – Rosetta Genomics Ltd. (NASDAQ: ROSG), a leading developer and provider of microRNA-based and other molecular diagnostics, today reported financial results for the three months ended March 31, 2016.

Recent developments include:

- Expanded molecular diagnostics test menu with the launch of three new product offerings in common hematologic cancers and solid tumors;
- Received conditional approval status from the New York State Department of Health (NYSDOH) for RosettaGX Reveal™, the Company's novel microRNA classifier for the diagnosis of indeterminate thyroid Fine Needle Aspirate (FNA) smears;
- Entered into an agreement that establishes health insurance access to Rosetta's entire suite of diagnostic tests and services with America's Choice Provider Network (ACPN®), an independent multispecialty national provider network; and
- Granted U.S. patent allowance for use of gene expression signature for classification of kidney tumors and granted European patent allowance for use of microRNA molecules for the treatment of liver cancer.

Management Commentary

"We are especially pleased to report record quarterly clinical testing revenues as it demonstrates the progress we have made in expanding our molecular diagnostics test menu, selling our clinical testing products and improving collections," said Kenneth A. Berlin, President and Chief Executive Officer of Rosetta Genomics. "Throughout the first quarter we completed the revamping of our sales force and invested in our billing and collections department. The results are reflected in our growing revenue and expanding customer base, as well as in improved collections. Further, these changes position us to drive revenue growth throughout the balance of the year and beyond.

"The commercial launch of RosettaGX Reveal continues to be a prime focus for our team. We expect the positive performance data from our blinded validation study to be published in a peer-reviewed journal in the coming weeks. These data demonstrate exceptional performance

and we anticipate that a journal publication will strongly support our reimbursement and sales efforts. In addition, our revamped sales team has been able to use RosettaGX Reveal to access new accounts to promote not only our exceptional thyroid offering, but also to promote our urologic cancer and solid tumor product lines. Since the beginning of the year, these promotional efforts resulted in the acquisition of over 30 thyroid customer accounts and over 60 new customer accounts for our urology and solid tumor businesses.

"Our work for the balance of the year will continue to focus on driving revenue growth in both our base business as well as with our new products, such as RosettaGX Reveal, expanding reimbursement, improving collections and advancing our clinical development programs, which should position us to achieve a number of important milestones that will enhance shareholder value," concluded Mr. Berlin.

First Quarter Financial Results

Please note that the pro forma comparisons below are meant to provide a comparison as if the PersonalizeDx acquisition occurred on January 1, 2015. The actual acquisition date was April 13, 2015.

- Revenues for the first quarter of 2016 increased 711% to $2.6 million compared with revenues of $321,000 for the first quarter of 2015, and increased 27% compared with pro forma revenues of $2.1 million for the first quarter of 2015.
- Revenues from urologic cancer testing services in the first quarter of 2016 were $1.4 million, an increase of 7% compared with pro forma revenues of $1.3 million for the first quarter of 2015, and represented approximately 54% of clinical testing revenues for the quarter.
- Revenues from solid tumor testing services in the first quarter of 2016 increased 272% to $1.2 million compared with revenues of $321,000 for the first quarter of 2015, and increased 58% compared with pro forma revenues of $0.8 million in the first quarter of 2015. Solid tumor testing services represented nearly 46% of total clinical testing revenues during the first quarter of 2016, with the balance coming from RosettaGX Reveal.
- Cost of revenues for the first quarter of 2016 increased to $1.7 million compared with $352,000 for the first quarter of 2015, due to the acquisition of PersonalizeDx leading to a higher volume of processed samples, as well as to increases in personnel and infrastructure.
- Research and development expenses for the first quarter of 2016 increased to $842,000 from $748,000 for the first quarter of 2015, primarily due to increased activities in Thyroid and other areas.
- Sales, marketing and business development expenses for the first quarter of 2016 increased to $1.9 million from $1.6 million in the prior-year period due to a larger commercial footprint as a result of the acquisition of PersonalizeDx.
- General and administrative expenses for the first quarter of 2016 increased to $2.2 million compared with $1.4 million for the same period in 2015, with the increase primarily due to increased personnel and activities related to the acquisition of PersonalizeDx.
- The operating loss for the first quarter of 2016 was $4.0 million, which included $230,000 of non-cash stock-based compensation expense, compared with an operating loss of $3.8

million for the first quarter of 2015, which included $276,000 of non-cash stock-based compensation expense.

- The net loss for the first quarter of 2016 was $4.0 million, or $0.20 per ordinary share on 20.7 million weighted average shares outstanding, compared with a net loss for the first quarter of 2015 of $3.9 million, or $0.30 per ordinary share on 12.8 million weighted average shares outstanding.
- On a non-GAAP basis, excluding $230,000 of non-cash stock-based compensation expense, the net loss for the first quarter of 2016 was $3.8 million, or $0.18 per ordinary share on 20.7 million weighted average shares outstanding. For the first quarter of 2015, excluding the $276,000 of non-cash stock-based compensation expense, the non-GAAP net loss was $3.6 million, or $0.28 per ordinary share on 12.8 million weighted average share outstanding.

Balance Sheet Highlights

As of March 31, 2016, Rosetta Genomics had cash, cash equivalents, restricted cash and short-term bank deposits of $12.6 million compared with $13.6 million as of December 31, 2015. The Company used approximately $2.6 million in cash to fund operations during the first quarter of 2016, and collected approximately $2.7 million in cash from its clinical testing services in addition to $1.6 million in cash receipts from a licensing deal signed in December 2015. Based on the Company's current operations and plans, which include a cost-reduction plan should it be unable to raise sufficient additional capital, if necessary, Rosetta Genomics expects its current cash position will fund operations for at least the next 12 months.

Conference Call

Rosetta Genomics management will host a conference call today beginning at 10:00 a.m. Eastern time to provide an update on the Company's business and answer questions. Individuals interested in listening to the conference call may do so by dialing (866) 239-5859, or for international callers (702) 495-1913. The conference ID number is 12008886. The call is also being webcast, and can be accessed on the investor relations section of the Company's website at www.rosettagx.com.

A telephone replay will be available through May 29, 2016 by dialing (855) 859-2056 or for international callers (404) 537-3406, and entering the conference ID number 12008886. The webcast will be available on the Company's website for 30 days.

Use of Non-GAAP Financial Measures

This press release contains certain non-GAAP financial measures. A "non-GAAP financial measure" refers to a numerical measure of historical or future financial performance, financial position or cash flows that excludes (or includes) amounts that are included in (or excluded from) the most directly comparable measure calculated and presented in accordance with GAAP in the financial statements. In this news release, Rosetta provides non-GAAP pro forma revenues and non-GAAP net loss as additional information relating to its operating results. The presentation of this additional information is not meant to be considered in isolation or as a substitute for revenues, net loss or net loss per share prepared in accordance with GAAP.

Pursuant to the requirements of Regulation G promulgated by the Securities and Exchange Commission, the Company has provided a reconciliation of each non-GAAP financial measure used in this earnings release and related conference call or webcast to the most directly comparable financial measure prepared in accordance with GAAP. This reconciliation is presented in the tables below under the heading "Reconciliation of GAAP to Non-GAAP Consolidated Statement of Operation." Investors are encouraged to review these reconciliations to ensure they have a thorough understanding of the reported non-GAAP financial measures and their most directly comparable GAAP financial measures.

Management uses these non-GAAP measures for internal reporting and forecasting purposes. The Company has provided these non-GAAP financial measures in addition to GAAP financial results because it believes that these non-GAAP financial measures provide useful information to certain investors and financial analysts for comparison across accounting periods not influenced by certain non-cash items that are not used by management when evaluating the Company's historical and prospective financial performance.

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. In addition, the Company offers core FISH, IHC and PCR-based testing capabilities 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 that the changes in our sales force and billing and collections department position us to drive revenue growth throughout the balance of the year and beyond; that data from our blinded validation study for RosettaGX Reveal™ will be published in a peer-reviewed journal in the coming weeks and that such publication will support our reimbursement and sales efforts; and that work for the balance of the year will position us to achieve a number of important milestones that will enhance shareholder value; and that our cash, cash equivalents, restricted cash and short-term bank deposits will be sufficient to fund operations for at least the next 12 months, 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.

Rosetta Genomics Contact:
Ken Berlin, President & CEO
267.298.1159
investors@rosettagx.com

Rosetta Genomics Investor Contact:
LHA
Anne Marie Fields
(212) 838-3777
afields@lhai.com

-Tables to Follow-

CONDENSED INTERIM CONSOLIDATED BALANCE SHEETS

U.S. dollars in thousands

	March 31, 2016	December 31, 2015
	Unaudited	
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 11,901	$ 12,447
Short-term bank deposits and restricted cash	602	1,098
Trade receivables, net	3,132	3,633
Other accounts receivable and prepaid expenses	674	2,192
Total current assets	16,309	19,370
LONG TERM ASSETS:		
Property and equipment, net	2,867	2,975
Restricted bank deposit and other long-term receivables	84	78
Total long term assets	2,951	3,053
Total assets	$ 19,260	$ 22,423

CONDENSED INTERIM CONSOLIDATED BALANCE SHEETS

U.S. dollars in thousands (except share data)

	March 31, 2016	December 31, 2015
	Unaudited	
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Trade payables	$ 1,304	$ 1,070
Other accounts payables and accruals	2,143	1,733
Total current liabilities	3,447	2,803
COMMITMENTS AND CONTINGENT LIABILITIES		
SHAREHOLDERS EQUITY:		
Share capital:		
Ordinary Shares of NIS 0.6 par value: 60,000,000 shares authorized at March 31, 2016 and December 31, 2015; 20,856,045 and 20,518,794 shares issued at March 31, 2016 and December 31, 2015, respectively; 20,852,787 and 20,515,536 shares outstanding at March 31, 2016 and December 31, 2015, respectively	3,245	3,194
Additional paid-in capital	156,875	156,696
Accumulated deficit	(144,307)	(140,270)
Total shareholders' equity	15,813	19,620
Total liabilities and shareholders' equity	$ 19,260	$ 22,423

CONDENSED INTERIM CONSOLIDATED STATEMENTS OF LOSS

U.S. dollars in thousands (except share and per share data)

	Three months ended March 31,	
	2016	2015
	Unaudited	
Revenues	$ 2,603	$ 321
Cost of revenues	1,658	352
Gross profit (loss)	945	(31)
Operating expenses:		
Research and development, net	842	748
Sales, marketing and business development	1,897	1,597
General and administrative	2,213	1,411
Total operating expenses	4,952	3,756
Operating loss	4,007	3,787
Financial expenses, net	24	76
Tax expense	6	5
Net loss	$ 4,037	$ 3,868
Basic and diluted net loss per ordinary share attributable to Rosetta Genomics' shareholders	$ 0.20	$ 0.30
Weighted average number of ordinary shares used to compute basic and diluted net loss per ordinary share	20,650,323	12,767,221

USD in thousands	Quarter ended March 31, 2015 (Unaudited)
GAAP revenues	$ 321
Additional revenues from PersonalizeDx for non-consolidated period of January 1, 2015 - April 12, 2015	1,734
Pro forma revenues	$ 2,055

USD in thousands	Quarter ended March 31, 2015 (Unaudited)
GAAP revenues for solid tumor testing services	$ 321
Additional revenues from PersonalizeDx for non-consolidated period of January 1, 2015 - April 12, 2015	432
Pro forma revenues for solid tumor testing services	$ 753

USD in thousands	Quarter ended March 31, 2015 (Unaudited)
GAAP revenues for urologic cancer testing services	$ -
Additional revenues from PersonalizeDx for non-consolidated period of January 1, 2015 - April 12, 2015	1,302
Pro forma revenues for urologic cancer testing services	$ 1,302

USD in thousands	Quarter ended March 31, 2016 (Unaudited)	2015 (Unaudited)
Net loss	$ 4,037	$ 3,868
Share-based compensation	230	276
non-GAAP net loss	**$ 3,807**	**$ 3,592**

Basic and diluted per share data	Quarter ended March 31, 2016 (Unaudited)	2015 (Unaudited)
Net loss	$ 0.195	$ 0.303
Share-based compensation	$ 0.011	$ 0.022
non-GAAP net loss	**$ 0.184**	**$ 0.281**
Weighted average number of Ordinary shares used to compute basic and diluted net loss per Ordinary share	20,650,323	12,767,221