



Rosetta Genomics Reports Third Quarter Financial Results, Provides Business Update

Conference Call Begins at 8:30 a.m. Eastern Time Today

PHILADELPHIA and REHOVOT, Israel (December 18, 2009) – Rosetta Genomics, Ltd. (NASDAQ: ROSG), a leading developer of microRNA-based molecular diagnostics, today reported financial results for the three and nine months ended September 30, 2009 and provided a business update. Highlights of the third quarter of 2009 and subsequent weeks include:

- The hiring of Kenneth A. Berlin as president and chief executive officer
- The commencement in October of processing of samples provided by our licensee as well as a number of our distribution partners of our first three miRview™ tests in our CLIA-certified lab in Philadelphia
- Prioritizing the Company's product pipeline to include five additional microRNA-based tests
- Further strengthening the Company's intellectual property position with receipt of its third and fourth issued U.S. patents covering microRNAs and receiving five more notices of allowance
- Entering into an exclusive distribution agreement with Genetic Technologies Ltd. for our first three cancer diagnostic tests in Australia, New Zealand and Singapore

Management Commentary

"We completed a series of distribution and licensing agreements for our miRview™ tests, miRview™ meso and miRview™ squamous tests throughout the year, and we are pleased that several of our marketing partners, in recent weeks, have launched these products," said Kenneth A. Berlin, president and chief executive officer of Rosetta Genomics. "We have begun to receive the samples and process these tests, and expect sales to begin to ramp up through 2010. For 2010 we forecast revenues from the processing of these tests to range from \$2 million to \$4 million, based on processing between 1,200 and 2,400 samples."

"Since joining Rosetta Genomics in early November, I have been reviewing our commercialization strategy, technology and research capabilities while meeting with our passionate and highly professional staff," he continued. "I undertook this task with the objective eye that comes with being new to the company, and with the goal of maximizing our assets to build shareholder value. Together with my management team and the board of directors we have prioritized five new tests that we will develop in the near term."

Rosetta is disclosing that the following three tests are expected to be developed and commercialized during the next two years:

- Second-generation miRview™ mets. We are working to expand the utility of our test for cancer of unknown primary. The current version of this test has a tumor panel of 25 cancers. We are now developing a test that is designed to identify a much larger panel of cancer origins. We believe that we can bring this test to market in the second half of 2010.
- FNA (Fine Needle Aspirate) lung cancer. We expect to launch another lung cancer diagnostic in the second half of 2011, which after differentiating small cell lung cancer from non-small cell lung cancer will further sub-classify non-small cell lung cancer into squamous or non-squamous. This test is being developed to leverage our newly developed Fine Needle Aspirate platform technology, which we plan to leverage across several types of tests.
- Bladder cancer. This test is intended to predict the risk of superficial bladder cancer becoming invasive. Our target date for commercialization is late 2011.

“The results we have seen in our colon cancer studies in serum over the past several months suggest that we will not be able to bring to market a competitive serum-based colon cancer screening assay. While we continue to work on a colon cancer screening test in other blood compartments, we’ve recently determined that a colon cancer screening test will not be a priority project at this time. I believe the five products we have decided to advance ahead of the colon cancer test represent a more compelling and differentiated product offering, and therefore better position us for success,” added Mr. Berlin.

“Our intellectual property is extensive, and our development work relies on these assets. We were very pleased during the third quarter and recent weeks to add two issued U.S. patents covering microRNAs to our portfolio, as well as to receive five notices of allowance. We now have four issued U.S. patents, 11 U.S. notices of allowance and 92 patent applications worldwide, including 39 in the U.S. We believe that our patents and patent applications, including those licensed from other parties, together represent the broadest of any company working in the area of microRNAs, and pose a formidable barrier to entry to our competitors,” he concluded.

Financial Overview

The company recorded no revenues in the third quarters of 2009 and 2008.

Research and development expenses were \$1.7 million for the third quarter of 2009, compared with \$2.0 million for the third quarter of 2008. R&D expenses decreased mainly due to steps taken by the company to reduce costs.

Marketing and business development expenses were \$825,000 for the third quarter of 2009, compared with \$519,000 for the third quarter of 2008. The increase was derived primarily from post-market validation expenses.

General and administrative expenses were \$858,000 in the third quarter of 2009, compared with \$691,000 in the third quarter of 2008.

The operating loss for the third quarter of 2009 was \$3.5 million, including \$264,000 of non-cash stock based compensation expense. This compares with an operating loss of \$3.2 million, including \$237,000 of non-cash stock based compensation expense, for the corresponding quarter of 2008.

The company's net loss from continuing operations in the third quarter of 2009 was \$3.4 million, or \$0.24 per ordinary share, compared with a net loss from continuing operations of \$3.1 million, or \$0.25 per ordinary share, in the same period of 2008.

On a non-GAAP basis, excluding stock-compensation expense, the net loss for the 2009 third quarter was \$3.1 million, or \$0.22 per ordinary share. This compares with the comparable figures for the 2008 third quarter of \$2.7 million, or \$0.23 per ordinary share.

On a GAAP basis, the net loss for the 2009 third quarter was \$3.4 million, or \$0.24 per ordinary share. This compares with the GAAP net loss for the 2008 third quarter of \$3.0 million, or \$0.25 per ordinary share.

For the nine months ended September 30, 2009 the company reported revenues from continuing operations of \$31,000, compared with no revenues in the comparable prior year period. The company's net loss from continuing operations for the nine months ended September 30, 2009 was \$10.6 million or \$0.80 per ordinary share, compared with a net loss from continuing operations of \$10.6 million or \$0.89 per ordinary share in the same period of 2008.

As of September 30, 2009, the company had \$13.5 million in cash, cash equivalents, short-term bank deposits and marketable securities.

Details reconciling non-GAAP amounts with GAAP amounts including specified items are provided in the table attached.

2010 Financial Guidance

The company expects its cash burn from operations for 2010 to be approximately \$900,000 per month; however, this may change significantly based on a number of factors, including our current assumptions of revenues and royalties from sales of our three marketed products, as well as the availability of other potential sources of cash.

Conference Call Information

Rosetta Genomics will host a conference call beginning at 8:30 a.m. Eastern time today to discuss third quarter results and recent corporate developments. To access the live conference call, U.S. and Canadian participants may dial (866) 239-5859; international participants may dial (702) 495-1913. To access the 24-hour audio replay, U.S. and Canadian participants may dial (800) 642-1687; international participants may dial (706) 645-9291. The access code for the replay is 46130893. The replay will be available until December 21, 2009.

A live audio webcast of the call will also be available on the "Investors" section of the company's website www.rosettagenomics.com. An archived webcast will be available on the company's website approximately two hours after the event, and will be archived for 30 days thereafter.

About microRNAs

MicroRNAs (miRNAs) are recently discovered, naturally occurring, small RNAs that act as master regulators and have the potential to form the basis for a new class of diagnostics and therapeutics. Since many diseases are caused by the abnormal activity of proteins, the ability to selectively regulate protein activity through microRNAs could provide the means to treat a wide range of human diseases. In addition, microRNAs have been shown to have different expression in various pathological conditions. As a result, these differences may provide for a novel diagnostic strategy for many diseases.

About Rosetta Genomics

Rosetta Genomics (NASDAQ: ROSG) is a leading developer of microRNA-based molecular diagnostics. Founded in 2000, the company'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 IP position and proprietary platform technologies, Rosetta Genomics is working on the application of these technologies in the development of a full range of microRNA-based diagnostic tools. The company's first three microRNA-based tests, miRview™ squamous, miRview™ mets, and miRview™ meso, are commercially available through its Philadelphia-based CLIA-certified lab. Rosetta Genomics is the 2008 winner of Wall Street Journal's Technology Innovation Awards in the medical/biotech category.

Forward-Looking Statements

Various statements in this news release concerning Rosetta's future expectations, plans and prospects, including without limitation, statements relating to projected 2010 revenues, projected cash burn rate and the expected timing of development of our pipeline products, 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 under "Key Information - Risk Factors" in Rosetta's Annual Report on Form 20-F for the year ended December 31, 2008 on file with the Securities and Exchange Commission. In addition, any forward-looking statements represent Rosetta's views only as of today 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.

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 release, Rosetta provides non-GAAP net loss and non-GAAP net loss per share data 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 net loss or net loss per share prepared in accordance with GAAP.

Pursuant to the requirements of Regulation G promulgated by the SEC, 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 a table 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.

Company Contact:
Rosetta Genomics
Ron Kamienschick
(646) 509-1893
investors@rosettagenomics.com

Investor Contacts:
Lippert/Heilshorn & Associates
Kim Sutton Golodetz
(212) 838-3777
kgolodetz@lhai.com
or
Bruce Voss
(310) 691-7100
bvoss@lhai.com

[Tables to follow]

ROSETTA GENOMICS LTD. AND ITS SUBSIDIARY (A development stage company)
CONSOLIDATED STATEMENTS OF OPERATIONS

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

	Nine months ended September 30,		Three Months ended September 30,	
	2009	2008	2009	2008
	Unaudited		Unaudited	
Revenues	\$ 31	-	\$ -	-
Cost Of Revenue	405	-	100	-
Gross loss	<u>374</u>	<u>-</u>	<u>100</u>	<u>-</u>
Operating expenses:				
Research and development, net	\$ 4,812	\$ 6,566	\$ 1,695	\$ 1,995
Marketing and business development	3,124	1,464	825	519
General and administrative	2,357	2,416	858	691
Total operating expenses.	<u>10,293</u>	<u>10,446</u>	<u>3,378</u>	<u>3,205</u>
Operating loss	10,667	10,446	3,478	3,205
Financial expenses (income), net	(35)	195	(53)	(139)
Net loss before discontinued operation	<u>10,632</u>	<u>10,641</u>	<u>3,425</u>	<u>3,066</u>
Net loss (profit) from discontinued operation	<u>1,832</u>	<u>(82)</u>	<u>-</u>	<u>(82)</u>
Net loss after discontinued operation	<u>\$ 12,464</u>	<u>\$ 10,559</u>	<u>\$ 3,425</u>	<u>\$ 2,984</u>
Basic and diluted net loss per Ordinary share of continuing operation	<u>\$ 0.80</u>	<u>\$ 0.89</u>	<u>\$ 0.24</u>	<u>\$ 0.25</u>
Basic and diluted net loss per Ordinary share of discontinuing operation	<u>\$ 0.14</u>	<u>\$ (0.01)</u>	<u>\$ -</u>	<u>\$ (0.01)</u>
Basic and diluted net loss (profit) per Ordinary share	<u>\$ 0.94</u>	<u>\$ 0.88</u>	<u>\$ 0.24</u>	<u>\$ 0.24</u>
Weighted average number of Ordinary shares used to compute basic and diluted net loss per Ordinary share	<u>13,316,592</u>	<u>11,993,425</u>	<u>14,174,443</u>	<u>12,119,510</u>

RECONCILIATION OF GAAP TO NON-GAAP CONSOLIDATED STATEMENT OF OPERATION:

	Nine Months ended September 30,		Three Months ended September 30,	
	2009	2008	2009	2008
GAAP net loss as reported	\$ 12,464	\$ 10,559	\$ 3,425	\$ 2,984
NON-GAAP Adjustment:				
Expenses reported for stock-based compensation				
Research and development, net	(249)	(209)	(84)	(72)
Marketing and business development	(220)	(154)	(58)	(60)
General and administrative	(340)	(360)	(122)	(105)
Impairments of investments in marketable securities				
Financial expenses, net	-	(629)	-	-
Total Adjustment	(809)	(1,352)	(264)	(237)
NON-GAAP net loss	11,655	9,207	3,161	2,747
NON-GAAP Basic net loss (income) per Ordinary share	\$ 0.88	\$ 0.77	\$ 0.22	\$ 0.23

ROSETTA GENOMICS LTD. AND ITS SUBSIDIARY (A development stage company)
CONSOLIDATED BALANCE SHEETS

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

	<u>September 30,</u> <u>2009</u>	<u>December 31,</u> <u>2008</u>
	<u>Unaudited</u>	
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 1,297	\$ 14,370
Short-term bank deposits	9,454	840
Marketable securities	2,747	426
Other accounts receivable and prepaid expenses	477	290
Current assets of discontinued operation	-	631
Total current assets	<u>13,975</u>	<u>16,557</u>
SEVERANCE PAY FUND	86	131
PROPERTY AND EQUIPMENT, NET	1,112	1,243
LONG-TERM ACCOUNTS RECEIVABLE	584	-
ASSETS OF DISCONTINUED OPERATION	-	2,214
Total long term assets	<u>1,782</u>	<u>3,588</u>
Total assets	<u>\$ 15,757</u>	<u>\$ 20,145</u>
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Current maturities of capital lease and of long-term loan	\$ 44	\$ 54
Trade payables	803	664
Other accounts payable and accruals	1,069	1,214
Total current liabilities	<u>1,916</u>	<u>1,932</u>
LONG-TERM LIABILITIES:		
Long-term bank loan and capital lease	12	43
Convertible loan	1,500	750
Deferred revenue	1,928	228
Accrued severance pay	119	520
Liabilities of discontinued operations	-	572
Total Long-term Liabilities	<u>3,559</u>	<u>2,113</u>
COMMITMENTS AND CONTINGENT LIABILITIES		
SHAREHOLDERS' EQUITY:		
Share capital	32	27
Additional paid-in capital	67,559	61,025
Other comprehensive income	110	3
Deficit accumulated during the development stage	<u>(57,419)</u>	<u>(44,955)</u>
Total shareholders' equity	<u>10,282</u>	<u>16,100</u>
Total liabilities and shareholders' equity	<u>\$ 15,757</u>	<u>\$ 20,145</u>

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