News Release

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FOR IMMEDIATE RELEASE

Rosetta Genomics Reports Fourth Quarter and 2006 Financial Results

Rehovot, Israel; New Brunswick, New Jersey (March 27, 2007) - Rosetta Genomics (NASDAQ: ROSG), today reported its consolidated financial results for the fourth quarter and year ended December 31, 2006.

"2006 was characterized by significant progress across our business, culminating in the completion of our initial public offering on March, 2 2007," said Amir Avniel, President and CEO of Rosetta Genomics. "We achieved several key business objectives, both through our new collaborations as well as our licensing agreements. Among these prominent milestones, several are notable. First, we are excited to have received a "Notice of Allowance" from the USPTO, for two of our patent applications covering human and viral microRNAs. With regards to our development programs, we have begun collaborating with Isis Pharmaceuticals, Inc., on the development of a microRNA-based therapeutic for liver cancer. We have also strengthened our intellectual property portfolio by establishing licensing agreements with Rockefeller University, Max-Planck-Innovation Gmbh, the licensing agent for the Max Planck Society, and Johns Hopkins University. Through these agreements, we now hold exclusive and co-exclusive licensing rights, from the three leading academic institutions that have discovered microRNAs. We believe our current intellectual property portfolio now covers the majority of known human microRNAs. Finally, we completed the initial public offering of our ordinary shares on The NASDAQ Global Market on March 2, 2007, resulting in net proceeds of approximately $26.2 million. I believe that this progress strengthens our position as one of the leaders in the microRNA field, and will allow us to continue advancing our development programs in future"

Cash, Cash Equivalents, Short term Bank Deposit and Marketable Securities

On December 31, 2006, we had cash, cash equivalents, short term bank deposit and marketable securities of $10.8 million, compared to $4.9 million on December 31, 2005. The increase in the company's liquidity from the prior year was primarily due to net proceeds of $13.8 million from issuing preferred shares in a private placement early in 2006 and the exercise of warrants. We received approximately $26.2 million in net proceeds from our initial public offering of 4,312,500 shares in March 2007.

Net Loss

The net loss for the fourth quarter of 2006 was $ *2. 1* million, or $0.82 per share, as compared to $ *1.8* million, or $0.72 per share, in the fourth quarter of 2005. The net loss for the fourth quarter of 2006 included $301,000 of non-cash stock-based compensation charges, compared to $65,000 in the fourth quarter of 2005.

For the year ended December 31, 2006, net loss was $7.6 million, or $2.98 per share, compared to a net loss of $5.8 million, or $2.35 per share, for the year ended December 31, 2005. The net loss for the year ended December 31, 2006 included $992,000 of non-cash stock-based compensation charges, compared to $248,000 in 2005.

Research and development expenses

Research and development expenses were $1.3 million in the fourth quarter of 2006, including $77,000 of non-cash stock-based compensation, as compared to research and development expenses of $1 million in the fourth quarter of 2005 which included $32,000 of non-cash stock-based compensation. This increase resulted primarily from an increase in purchasing of tissue samples and other research related materials as we made progress in our Cancer of Unknown Primary (CUP) diagnostic program as well as an increase in costs relating to our intellectual property and costs associated with license fees.

Research and development expenses were $4.8 million for the year ended December 31, 2006, including $247,000 of non-cash stock-based compensation, as compared to $3.2 million for the year ended December 31, 2005, which included $73,000 of non-cash stock-based compensation. Research and development expenses for the year ended December 31, 2006 increased as we made progress with our proprietary pipeline, primarily the CUP program, as well as due to an increase in expenses relating to our intellectual property and costs associated with license fees as well as research and development costs related to our wholly owned U.S. subsidiary.

Marketing and business development expenses

Marketing and business development expenses were $388,000 in the fourth quarter of 2006, including $32,000 of non-cash stock-based compensation, as compared to $263,000 in the fourth quarter of 2005. Marketing and business development expenses included no non-cash stock-based compensation in the fourth quarter of 2005. This increase resulted primarily from an increase in salaries and related expenses offset by costs related to consultation and legal expenses related to the negotiations on a number of collaborations executed early in 2006.

Marketing and business development expenses were $1.5 million for the year ended December 31, 2006, including $49,000 of non-cash stock-based compensation, as compared to $865,000 for the year ended December 31, 2005. Marketing and business development expenses included no non-cash stock-based compensation in 2005. This increase resulted primarily from an increase in salaries and related expenses from the addition of business development and marketing personnel to support our alliances and expanding research and development collaborations.

General and administrative expenses

General and administrative expenses were $507,000 in the fourth quarter of 2006, including $192,000 of non-cash stock-based compensation, as compared to $214,000 in the fourth quarter of 2005 which included $33,000 of non-cash stock-based compensation. This increase resulted primarily from an increase in salaries and related expenses from the addition of key members to our management team, including several senior managers in finance and accounting.

General and administrative expenses were $1.9 million for the year ended December 31, 2006, including $696,000 of non-cash stock-based compensation, as compared to $1.1 million for the year ended December 31, 2005, which included $175,000 of non-cash stock-based compensation. This increase resulted primarily from an increase in salaries and related expenses from the addition of key members to our management team, including several senior managers in finance and accounting.

Financial income (expenses), net

Net financial income was $122,000 in the fourth quarter of 2006, as compared to net financial expenses of $294,000 in the fourth quarter of 2005. Financial income in the fourth quarter of 2006 was derived primarily from interest income on bank deposits. Financial expenses in the fourth quarter of 2005 included $315,000 amortization of discount related to a convertible loan and compensation expenses related to warrants granted under a finder fee agreement, which were offset in part by interest income.

Net financial income was $538,000 for the year ended December 31, 2006, as compared to net financial expenses of $660,000 for the year ended December 31, 2005. Financial income in 2006 was derived primarily from interest income on bank deposits. Financial expenses in 2005 included issuance costs and amortization of discount related to a convertible loan and compensation expenses related to warrants granted under a finder's fee agreement, which were offset in part by interest income.

2006 Corporate Highlights

- We advanced the development of our CUP diagnostic test for Cancer of Unknown Primary (CUP), and were able to recognize 11 different tumor types by measuring the expression of 9 microRNAs. This data was presented at the following conferences:
  - American Association of Cancer Research's (AACR) Molecular Diagnostics in Cancer Therapeutic Development conference, September 2006.
  - Gordon Conference on New Frontiers in Cancer Detection and Diagnosis, January 2006
  - Keystone Symposium, January 2007
- Throughout 2006, Rosetta Genomics presented several updates on our advancement in microRNA research, including the following scientific meetings and publications:
  - Keystone, January 2006
  - *Proceedings of the National Academy of Sciences (PNAS)*, March 2006
  - Bio, April 2006
  - Beyond Genome, June 2006
- Received a "Notice of Allowance" from United States Patent and Trademark Office (USPTO) for two of our patent applications covering human (10/310,914) and viral (10/604,944) microRNAs.
- In January 2006, we entered into a research collaboration agreement with Isis Pharmaceuticals, Inc., under which we agreed to discover and develop drugs that regulate microRNAs involved in Hepatocellular carcinoma (HCC), the most prevalent type of liver cancer. The research collaboration is partially funded by the Israel United-States Bio-national Industrial Research and Development Foundation (BIRD).
- In January 2006, we entered into a collaboration and license agreement with Ambion Diagnostics, Inc., now Asuragen, Inc. Under the agreement, Asuragen and we agreed to jointly develop products for the diagnosis of prostate cancer using microRNAs.
- In May 2006, we signed a royalty-bearing, co-exclusive, worldwide license agreement with The Rockefeller University. Under this agreement, we were granted the right to make, use and sell Rockefeller's proprietary microRNAs for diagnostic purposes including a limited right to sublicense. The agreement covers microRNAs and microRNA candidates, including approximately 80 biologically validated human microRNAs and approximately 30 biologically validated viral microRNAs.
- In June 2006, we entered into a royalty-bearing, co-exclusive, worldwide license agreement with Max Planck Innovation GmbH, the technology transfer agency of the Max Planck Society. Under this agreement, we licensed from Max Planck the rights to its proprietary microRNAs for diagnostics purposes, including approximately 110 biologically validated human microRNA. In addition, in December 2006, we entered into another royalty-bearing, non-exclusive, worldwide license agreement with Max

Planck. Under this agreement, we licensed from Max Planck the rights to its proprietary microRNAs for research purposes.

- In August 2006, we signed a royalty-bearing, exclusive, worldwide license agreement with Johns Hopkins University. Under this agreement, we have exclusively licensed from Johns Hopkins the rights to its proprietary microRNAs for all fields and applications. The agreement covers approximately 130 biologically validated microRNAs.

About microRNAs

MicroRNAs (miRNAs) are recently discovered, naturally occurring small RNAs that act as protein 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 levels in certain diseased versus normal tissues. As a result, these differences potentially provide for a novel diagnostic strategy for many diseases. MicroRNAs are thought to play a key role in the differentiation of cells into specific cell types performing various functions in the body.

About Rosetta Genomics

Rosetta Genomics is a leader in the development of microRNA-based diagnostics and therapeutics. 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 strategic alliances with leading biotechnology companies, Rosetta Genomics is working to develop a full range of diagnostic and therapeutic products based on microRNAs. The company's primary focus is in the development of microRNA-based products to diagnose and treat different forms of cancer and infectious diseases.

Leading The MicroRNA Revolution

ROSETTA GENOMICS LTD.
CONDENSED CONSOLIDATED BALANCE SHEET DATA
In thousands (except share and per share data)

	December 31, 2006	December 31, 2005
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 5,228	$ 4,917
Short-term bank deposits	5,149	-
Marketable securities	386	-
Other accounts receivable and prepaid expenses	134	68
Deferred issuance costs	1,787	-
Total current assets	12,684	4,985
SEVERANCE PAY FUND	98	41
PROPERTY AND EQUIPMENT, NET	461	343
Total assets	$ 13,243	$ 5,369
LIABILITIES AND SHAREHOLDERS' EQUITY (DEFICIENCY)		
CURRENT LIABILITIES:		
Short-term bank loan, current maturities of capital lease and Of long-term loan	$ 48	$ 73
Trade payables	745	395
Deferred revenue	228	228
Other accounts payable and accruals	750	534
Shareholder's loan	-	110
Total current liabilities	1,771	1,340
LONG-TERM LIABILITIES:		
Long-term bank Loan and lease obligations	29	-
Accrued severance pay	344	122
Total Long-term Liabilities	373	122
CONVERTIBLE LOAN	-	6,230
SHAREHOLDERS' EQUITY (DEFICIENCY):		
Share capital:	17	11
Additional paid-in capital	31,958	10,997
Other comprehensive income	3	-
Deferred stock-based compensation	(48)	(107)
Deficit accumulated during the development stage	(20,831)	(13,224)
Total shareholders' equity (deficiency)	11,099	(2,323)
Total liabilities and shareholders' equity (deficiency)	$ 13,243	$ 5,369

ROSETTA GENOMICS LTD.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
In thousands (except share and per share data)

	Three months ended December 31, 2006 (Unaudited)	Three months ended December 31, 2005 (Unaudited)	Year ended December 31, 2006	Year ended December 31, 2005
Operating expenses:				
Research and development, net	$ 1,335	$ 1,036	$ 4,781	$ 3,173
Marketing and business development	388	263	1,504	865
General and administrative	507	214	1,860	1,145
Operating loss	2,230	1,513	8,145	5,183
Financial expenses (income), net	(122)	294	(538)	660
Net loss	$ 2,108	$ 1,807	$ 7,607	$ 5,843
Basic and diluted net loss per Ordinary share	$ 0.82	$ 0.72	$ 2 .98	$ 2.35
Weighted average number of Ordinary shares used to compute basic and diluted net loss per Ordinary share	$ 2,556,205	$ 2,509,258	$ 2,551,860	$ 2,495,366
Pro forma basic and diluted net loss per share	$ 0.28	$ 0.24	$ 1.01	$ 0.78
Weighted average number of shares used to compute basic and diluted pro forma net loss per share	$ 7,504,809	$ 7,457,862	$ 7,500,464	$ 7,443,970