

Reason for report:
EARNINGS

EPIZYME, INC.

Advancing to Multiple Phase II Programs in 2014

• **Bottom Line:** On the 4Q:13 earnings call, EPZM provided financial guidance for 2014 with cash burn estimated at \$80M and YE:14 cash of \$170M following a recent capital raise. The company also provided an incremental update on clinical development and potential milestones for the two epigenetic candidates EPZ-5676 (DOT1L inhibitor) and EPZ-6438 (EZH2 inhibitor). Both programs are expected to have detailed Phase I data and advance to Phase II or pivotal trials in 2014. Following initial clinical proof-of-concept data for EPZ-5676 in difficult to treat MLL-r acute leukemias, rapid progress in DOT1L and EZH2 inhibitors and GSK (MP) partnership advancing to candidate selections show a high level of interest in targeted epigenetics for cancer drug development. Our price target on EPZM remains \$38.

• **Two assets potentially advance to Phase II or pivotal trials in 2014.** Following initial proof-of-concept EPZ-5676 data in MLL-r after dosing modification, management expected timely enrollment for the expansion cohorts in both MLL-r and MLL-PTD patients. Data from dose escalation and expansion cohorts are expected in 2H:14. Assuming positive readout, management plans to meet with the FDA to discuss the potential registration trial. Data from EPZ-6438 Phase I dose escalation studies in hematologic and solid tumors are also expected in 2H:14 and Phase II trials in non-Hodgkins lymphoma (NHL) and synovial sarcomas will be initiated in 2014 upon completion of Phase I trials.

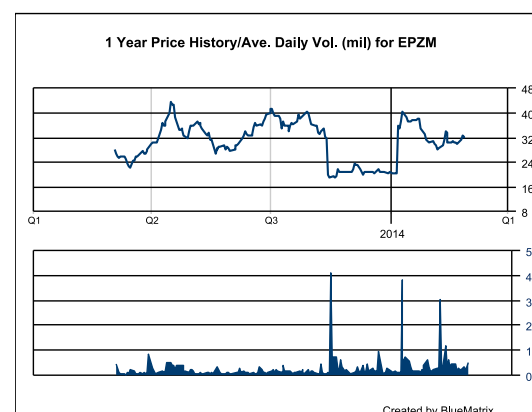
• **Multiple milestones mark rapid advancement of clinical programs.** In 4Q:13, EPZM earned \$25M from CELG (OP) for showing initial proof-of-concept data for EPZ-5676, and \$6M from Eisai for Phase I initiation for EPZ-6438. Following the recent \$4M milestone received from GSK for initial selection of the three HMT candidates, EPZM announced the second selection of the HMT candidate, earning an additional \$2M in milestones. EPZM could also gain a \$10M milestone for initiating a Phase II trial for EPZ-6438 in 2014.

• **Model update.** For 4Q:13, EPZM reported \$36.3M in revenue, vs. our estimate of \$8M, largely attributable to milestones earned from CELG (\$25M), Eisai (\$6M) and GSK (\$4M). Dilutive EPS was \$0.52, vs. our estimate of (\$0.39). The company provided guidance for 2014, including \$75M for R&D (\$3M non-cash), \$20M for SG&A (\$5.5M non-cash), and \$170M for YE:14 cash. We update our model to reflect these changes. As a result, our 2014 revenue estimate changes from \$60M to \$40M, and EPS changes from (\$0.69) to (\$1.71).

Key Stats:

(NASDAQ:EPZM)

S&P 600 Health Care Index:	1,312.08
Price:	\$31.82
Price Target:	\$38.00
Methodology:	NPV analysis
52 Week High:	\$45.72
52 Week Low:	\$15.00
Shares Outstanding (mil):	28.4
Market Capitalization (mil):	903.7
Cash Per Share:	\$7.25
Dividend (ann):	\$0.00
Dividend Yield:	0.0%



Dec Yr	1Q	2Q	3Q	4Q	FY Rev	1Q	2Q	3Q	4Q	FY EPS	P/E
2013A	\$8.9	\$14.8	\$8.4	\$36.3	\$68.5	(\$4.27)	(\$0.25)	(\$0.34)	\$0.52	(\$0.22)	NM
2014E - New	\$10.0	\$10.0	\$10.0	\$10.0	\$40.0	(\$0.43)	(\$0.43)	(\$0.43)	(\$0.43)	(\$1.71)	NM
2014E - Old	--	--	--	--	\$60.0	--	--	--	--	(\$0.69)	NM
2015E - New	--	--	--	--	\$35.0	--	--	--	--	(\$2.08)	NM
2015E - Old	--	--	--	--	\$35.0	--	--	--	--	(\$1.70)	NM

Source: Company Information and Leerink Partners LLC Research
 Revenues in \$MM; GAAP EPS

INVESTMENT THESIS

EPZM is a clinical-stage biotechnology company focused on epigenetic treatments for cancer and has a proprietary platform for developing inhibitors of histone methyltransferases (HMTs), an important class of enzymes that controls gene expression. Epigenetics represents an important new direction for new cancer treatment, and EPZM's has a leading platform for development of HMT inhibitors. The historical approach of targeting individual signaling pathways has often yielded modest efficacy except in limited circumstances. This has resulted in pursuit of alternative strategies such as epigenetics, which are supported by impressive survival benefit in a currently marketed epigenetic drug as well as recent findings linking mutations affecting the epigenetic complexes and cancer. HMTs have emerged as an attractive class of epigenetic targets due to both mutational evidence and drugability. EPZM characterized the 96 members of the class, and it has a leading intellectual property position in this area. The company has prioritized 20 HMTs for development and currently has 23 HMTs in screen today. The strong partnerships signed with CELG, GSK and Eisai provide further validation of the platform. One clinical program has shown initial clinical proof of principle and a second could potentially report in the near future. Pre-clinical models have demonstrated tumor eradication, without re-growth, post washout of the drug. Though the agent is administered through a continuous IV infusion, our conversation with MEDACorp key opinion leaders (KOLs) suggest that the unmet medical need is high, and if the agent is effective, dosing will not be a problem. EPZ-6438 is an orally dosed inhibitor of EZH2, which is implicated in the development of lymphomas as well as major solid tumors. Preclinical models by both EPZM and GSK have demonstrated the efficacy of EZH2 inhibition in lymphomas, with lack of tumor re-growth, post cessation of dosing. Phase I dosing has recently begun, and an early assessment of efficacy could be available in 1H:14.

EPZM – Expected Events

<u>Compound</u>	<u>Timing</u>	<u>Event</u>
EPZ-5676	1H:14	Initiate Phase I in pediatric MLL-r
	2H:14	Data from Phase I dose escalation and expansion cohort in AML with MLL-r and MLL-PTD mutation
EPZ-6438	2014	Initiate Phase II clinical trial in NHL with EZH2 mutation
	2014	Initiate Phase II in synovial sarcomas (INI1 deficient tumor)
	2H:14	Data from Phase I dose escalation study

Source: Company reports and Leerink Partners LLC Research

EPZM – Product Pipeline

<u>Compound</u>	<u>Target</u>	<u>Phase</u>	<u>Partner</u>
EPZ-5676	DOT1L inhibitor	I	CELG
EPZ-6438	EZH2 Inhibitor	I	Eisai
GSK targets	Undisclosed	Pre-clinical	GSK
Platform	Various - 23 HMT in screen today	Pre-clinical	

Source: Company reports

VALUATION

Our price target for EPZM is \$38. Our probability of success is 50% for EPZ-5676 and 30% for EPZ-6438. Our \$38 price target is based on NPV methodology discounted at 10%. We believe this discount rate is appropriate as we use probability-weighted sales for the products and we lowered the discount rate to be consistent with what we currently use for other companies in our coverage universe due to greater market risk tolerance. We include \$170M of cash at the end of 2014 and \$500M in technology value.

RISKS TO VALUATION

- Pre-clinical models may not accurately predict for clinical benefit.
- Human safety and efficacy of EPZ-5676 or EPZ-6438 are unknown due to early stage of development. Dosing of EPZ-5676 (continuous infusion) is not optimal, and human dosing requirement of EPZ-6438 remains to be determined.
- Competition from GSK or other companies focused on these targets could negatively impact EPZM's revenues.
- Competition from other agents for MLL-r or other hematological malignancies could limit the revenues of EPZM's products.
- Commercial uptake may be limited by reimbursement, access or dosing concerns for EPZ-5676 and EPZ-6438.

EPZM Income Statement (Figures in \$000, except EPS)	2012A	1QA	2QA	3QA	4QA	2013A	1QE	2QE	3QE	4QE	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E
EPZ-5676																		
US														6,753	62,552	123,760	170,843	230,779
EU														0	7,028	56,341	100,932	164,122
JP														0	0	1,114	8,908	18,153
Total														6,753	69,580	181,214	280,684	413,053
Probability of success														30.0%	30.0%	30.0%	30.0%	30.0%
OUS Royalty Rate															5.0%	5.0%	6.0%	7.0%
EPZ-6438																		
US														0	23,725	219,752	431,736	587,653
EU														0	0	13,627	122,900	236,425
JP														0	0	0	1,644	14,800
Total														0	23,725	233,379	556,280	838,877
Probability of success														20.0%	20.0%	20.0%	20.0%	20.0%
OUS Royalty Rate															6.0%	6.0%	6.0%	6.0%
Booked by Epizyme																		
EPZ-5676 US (POS adjusted)														2,026	18,766	37,128	51,253	69,234
EPZ-6438 US (POS adjusted) - 50% share														0	2,372	21,975	43,174	58,765
Sales booked by other companies																		
EPZ-5676 (POS adjusted)														0	2,108	17,236	32,952	54,682
EPZ-6438 (POS adjusted)														0	0	2,725	24,909	50,245
Royalties																		
EPZ-5676 (POS adjusted)														0	105	862	1,977	3,828
EPZ-6438 (POS adjusted)														0	0	164	1,495	3,015
Collaboration revenue	45,222	8,882	14,839	8,444	36,317	68,482	10,000	10,000	10,000	10,000	40,000	35,000	20,000	20,000	20,000	0	0	0
Total revenues		8,882	14,839	8,444	36,317	68,482	10,000	10,000	10,000	10,000	40,000	35,000	20,000	22,026	41,244	60,129	97,898	134,841
Operating expenses:																		
Research and development	38,482	13,361	13,937	14,584	15,685	57,567	18,750	18,750	18,750	18,750	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000
Stock based compensaton							750	750	750	750	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
General and administrative	7,508	2,998	3,079	3,587	4,378	14,042	5,000	5,000	5,000	5,000	20,000	25,000	30,000	35,000	50,000	50,000	50,000	50,000
Stock based compensaton							1,375	1,375	1,375	1,375	5,500	5,555	6,000	7,000	8,500	8,500	8,500	8,500
Total operating expenses	45,990	16,359	17,016	18,171	20,063	71,609	23,750	23,750	23,750	23,750	95,000	103,000	108,000	113,000	128,000	128,000	128,000	128,000
Loss from operations	(768)	(7,477)	(2,177)	(9,727)	16,254	(3,127)	(13,750)	(13,750)	(13,750)	(13,750)	(55,000)	(68,000)	(88,000)	(90,974)	(86,756)	(67,871)	(30,102)	6,841
Interest income	145	19	20	0	0	39	0	0	0	0	0	0	0	0	0	0	0	0
Other expense	(78)	(39)	(55)	23	25	(46)	0	0	0	0	0	0	0	0	0	0	0	0
Other income (expense), net	67	(20)	(35)	23	25	(7)	0	0	0	0	0	0	0	0	0	0	0	0
Loss before income taxes	(701)	(7,497)	(2,212)	(9,704)	16,279	(3,134)	(13,750)	(13,750)	(13,750)	(13,750)	(55,000)	(68,000)	(88,000)	(90,974)	(86,756)	(67,871)	(30,102)	6,841
Income tax expense	1	0	0	0	349	349	0	0	0	0	0	0	0	0	0	0	0	0
Income before preferred stock holders	(702)	(7,497)	(2,212)	(9,704)	15,930	(3,483)	(13,750)	(13,750)	(13,750)	(13,750)	(55,000)	(68,000)	(88,000)	(90,974)	(86,756)	(67,871)	(30,102)	6,841
Income to preferred stock holders	486	157	107	0	4	268	0	0	0	0	0	0	0	0	0	0	0	0
Net income - GAAP	(1,188)	(7,654)	(2,319)	(9,704)	15,926	(3,751)	(13,750)	(13,750)	(13,750)	(13,750)	(55,000)	(68,000)	(88,000)	(90,974)	(86,756)	(67,871)	(30,102)	6,841
Stock based compensation							2,125	2,125	2,125	2,125	8,500	8,555	9,000	10,000	11,500	11,500	11,500	11,500
Net income - Non-GAAP							(11,625)	(11,625)	(11,625)	(11,625)	(46,500)	(59,445)	(79,000)	(80,974)	(75,256)	(56,371)	(18,602)	18,341
EPS - GAAP																		
Basic	(\$0.72)	(\$4.27)	(\$0.25)	(\$0.34)	\$0.56	(\$0.22)	(\$0.43)	(\$0.43)	(\$0.43)	(\$0.43)	(\$1.71)	(\$2.08)	(\$2.66)	(\$2.71)	(\$2.54)	(\$1.96)	(\$0.86)	\$0.19
Diluted	(\$0.72)	(\$4.27)	(\$0.25)	(\$0.34)	\$0.52	(\$0.22)	(\$0.43)	(\$0.43)	(\$0.43)	(\$0.43)	(\$1.71)	(\$2.08)	(\$2.66)	(\$2.71)	(\$2.54)	(\$1.96)	(\$0.86)	\$0.18
Weighted average shares outstanding:																		
Basic	1,645	1,791	9,146	28,406	28,434	17,049	32,108	32,140	32,172	32,204	32,156	32,638	33,128	33,625	34,129	34,641	35,161	35,688
Diluted	1,645	1,791	13,797	32,985	30,901	19,869	34,927	34,962	34,997	35,032	34,980	35,505	36,037	36,578	37,126	37,683	38,248	38,822

Source: Company information and Leerink estimates

Disclosures Appendix

Analyst Certification

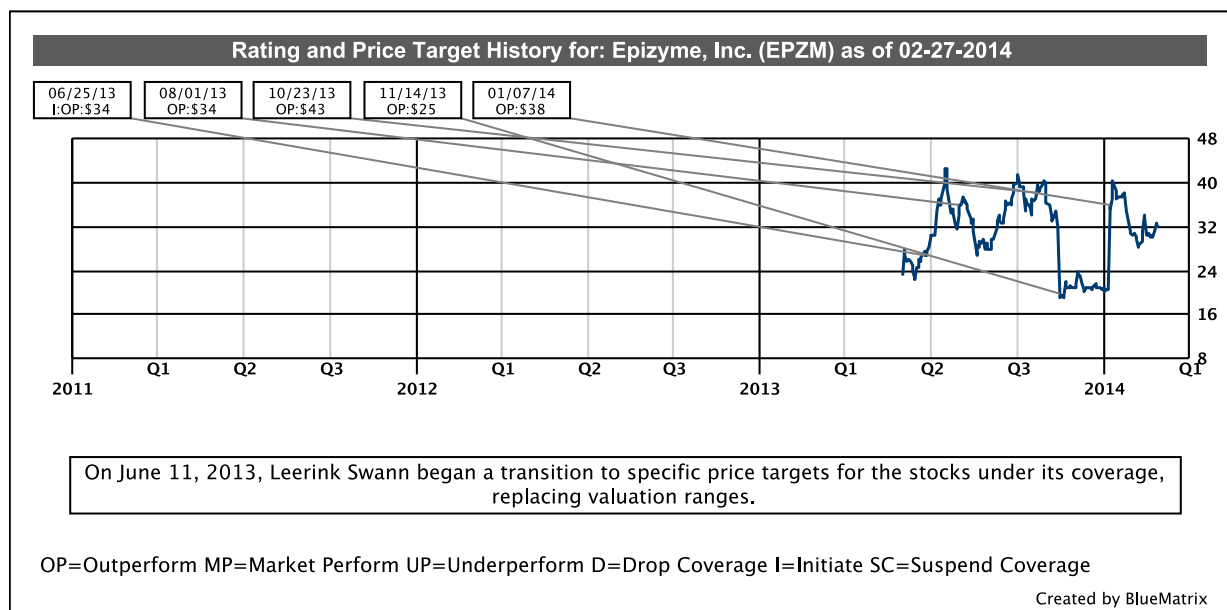
I, Howard Liang, Ph.D., certify that the views expressed in this report accurately reflect my views and that no part of my compensation was, is, or will be directly related to the specific recommendation or views contained in this report.

Valuation

Our price target for EPZM is \$38. Our probability of success is 50% for EPZ-5676 and 30% for EPZ-6438. Our \$38 price target is based on NPV methodology discounted at 10%. We believe this discount rate is appropriate as we use probability-weighted sales for the products and we lowered the discount rate to be consistent with what we currently use for other companies in our coverage universe due to greater market risk tolerance. We include \$170M of cash at the end of 2014 and \$500M in technology value.

Risks to Valuation

- Pre-clinical models may not accurately predict for clinical benefit.
- Human safety and efficacy of EPZ-5676 or EPZ-6438 are unknown due to early stage of development. Dosing of EPZ-5676 (continuous infusion) is not optimal, and human dosing requirement of EPZ-6438 remains to be determined.
- Competition from GSK or other companies focused on these targets could negatively impact EPZM's revenues.
- Competition from other agents for MLL-r or other hematological malignancies could limit the revenues of EPZM's products.
- Commercial uptake may be limited by reimbursement, access or dosing concerns for EPZ-5676 and EPZ-6438.

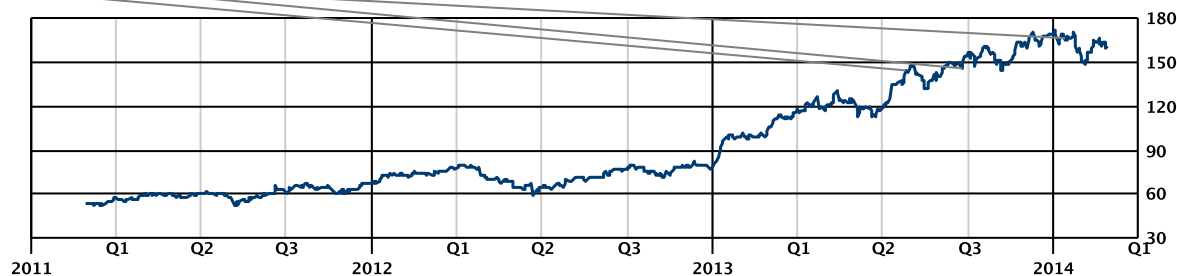


Rating and Price Target History for: Celgene, Inc. (CELG) as of 02-27-2014

07/26/13
OP:\$165

09/25/13
OP:\$177

01/14/14
OP:\$197



Leerink Swann initiated coverage of CELG with an Outperform rating on February 7, 2003. On June 11, 2013, Leerink Swann began a transition to specific price targets for the stocks under its coverage, replacing valuation ranges.

OP=Outperform MP=Market Perform UP=Underperform D=Drop Coverage I=Initiate SC=Suspend Coverage

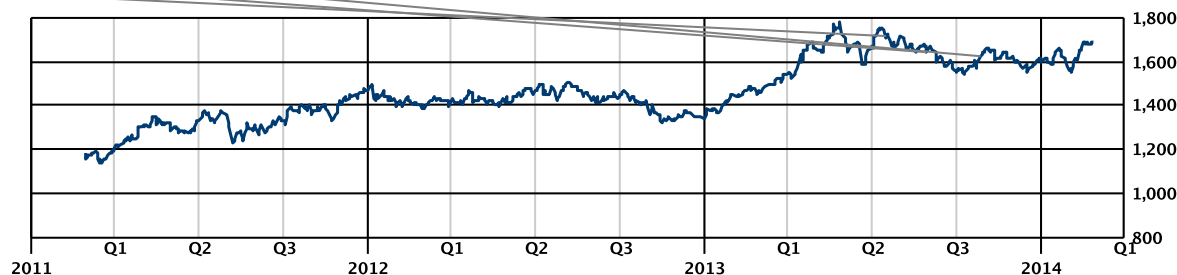
Created by BlueMatrix

Rating and Price Target History for: GlaxoSmithKline plc (GSK LN) as of 02-27-2014

07/17/13
MP:1830p

08/30/13
MP:1836p

10/28/13
MP:1715p



Leerink Swann initiated coverage of GSK LN with a Market Perform rating on Nov. 24, 2009. On June 11, 2013, Leerink Swann began a transition to specific price targets for the stocks under its coverage, replacing valuation ranges.

OP=Outperform MP=Market Perform UP=Underperform D=Drop Coverage I=Initiate SC=Suspend Coverage

Created by BlueMatrix

Distribution of Ratings/Investment Banking Services (IB) as of 12/31/13				
Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [OP]	118	64.50	30	25.00
HOLD [MP]	65	35.50	2	3.00
SELL [UP]	0	0.00	0	0.00

Explanation of Ratings

Outperform (Buy): We expect this stock to outperform its benchmark over the next 12 months.

Market Perform (Hold/Neutral): We expect this stock to perform in line with its benchmark over the next 12 months.

Underperform (Sell): We expect this stock to underperform its benchmark over the next 12 months. The degree of outperformance or underperformance required to warrant an Outperform or an Underperform rating should be commensurate with the risk profile of the company.

For the purposes of these definitions the relevant benchmark will be the S&P 600® Health Care Index for issuers with a market capitalization of less than \$2 billion and the S&P 500® Health Care Index for issuers with a market capitalization over \$2 billion.

Important Disclosures

This information (including, but not limited to, prices, quotes and statistics) has been obtained from sources that we believe reliable, but we do not represent that it is accurate or complete and it should not be relied upon as such. All information is subject to change without notice. This is provided for information purposes only and should not be regarded as an offer to sell or as a solicitation of an offer to buy any product to which this information relates. The Firm, its officers, directors, employees, proprietary accounts and affiliates may have a position, long or short, in the securities referred to in this report, and/or other related securities, and from time to time may increase or decrease the position or express a view that is contrary to that contained in this report. The Firm's salespeople, traders and other professionals may provide oral or written market commentary or trading strategies that are contrary to opinions expressed in this report. The Firm's proprietary accounts may make investment decisions that are inconsistent with the opinions expressed in this report. The past performance of securities does not guarantee or predict future performance. Transaction strategies described herein may not be suitable for all investors. Additional information is available upon request by contacting the Editorial Department at One Federal Street, 37th Floor, Boston, MA 02110.

Like all Firm employees, analysts receive compensation that is impacted by, among other factors, overall firm profitability, which includes revenues from, among other business units, Institutional Equities, and Investment Banking. Analysts, however, are not compensated for a specific investment banking services transaction.

MEDACorp is a network of healthcare professionals, attorneys, physicians, key opinion leaders and other specialists accessed by Leerink and it provides information used by its analysts in preparing research.

Leerink Consulting LLC, an affiliate of Leerink Partners, is a provider of evidence-based strategy and consulting to the healthcare industry.

In the past 12 months, the Firm has received compensation for providing investment banking services to Epizyme, Inc. .

Leerink Partners LLC makes a market in Epizyme, Inc. and Celgene, Inc.

Leerink Partners LLC is willing to sell to, or buy from, clients the common stock of GlaxoSmithKline plc on a principal basis.

In the past 12 months, an affiliate of the Firm, Leerink Swann Consulting LLC, has received compensation for providing non-securities services to: Celgene, Inc. and GlaxoSmithKline plc.

Leerink Partners LLC has acted as the manager for a public offering of Epizyme, Inc. in the past 12 months.

©2014 Leerink Partners LLC. All rights reserved. This document may not be reproduced or circulated without our written authority.

Leerink Partners LLC Equity Research			
--------------------------------------	--	--	--

Director of Equity Research	John L. Sullivan, CFA	(617) 918-4875	john.sullivan@leerink.com
Associate Director of Research	Alice C. Avanian, CFA	(617) 918-4544	alice.avanian@leerink.com
Healthcare Strategy	John L. Sullivan, CFA	(617) 918-4875	john.sullivan@leerink.com
	Alice C. Avanian, CFA	(617) 918-4544	alice.avanian@leerink.com
Biotechnology	Howard Liang, Ph.D.	(617) 918-4857	howard.liang@leerink.com
	Joseph P. Schwartz	(617) 918-4575	joseph.schwartz@leerink.com
	Marko Kozul, M.D.	(415) 905-7221	marko.kozul@leerink.com
	Michael Schmidt, Ph.D.	(617) 918-4588	michael.schmidt@leerink.com
	Jonathan Chang, Ph.D.	(617) 918-4015	jonathan.chang@leerink.com
	Irene Lau	(415) 905-7256	irene.lau@leerink.com
	Paul Matteis	(617) 918-4585	paul.matteis@leerink.com
	Gena Wang, Ph.D., CFA	(212) 277-6073	gena.wang@leerink.com
Life Science Tools and Diagnostics	Dan Leonard	(212) 277-6116	dan.leonard@leerink.com
	Justin Bowers, CFA	(212) 277-6066	justin.bowers@leerink.com
Pharmaceuticals/Major	Seamus Fernandez	(617) 918-4011	seamus.fernandez@leerink.com
	Ario Arabi	(617) 918-4568	ario.arabi@leerink.com
Specialty Pharmaceuticals, Generics	Jason M. Gerberry, JD	(617) 918-4549	jason.gerberry@leerink.com
	Christopher W. Kuehnle, JD	(617) 918-4851	chris.kuehnle@leerink.com
Medical Devices, Cardiology & Orthopedics	Danielle Antalffy	(212) 277-6044	danielle.antalffy@leerink.com
	Richard Newitter	(212) 277-6088	richard.newitter@leerink.com
	Robert Marcus, CFA	(212) 277-6084	robert.marcus@leerink.com
	Ravi Misra	(212) 277-6049	ravi.misra@leerink.com
Healthcare Services	Ana Gupte, Ph.D.	(212) 277-6040	ana.gupte@leerink.com
Healthcare Technology & Distribution	David Larsen, CFA	(617) 918-4502	david.larsen@leerink.com
	Christopher Abbott	(617) 918-4010	chris.abbott@leerink.com
Sr. Editor/Supervisory Analyst Supervisory Analysts	Mary Ellen Eagan, CFA	(617) 918-4837	maryellen.eagan@leerink.com
	Robert Egan		bob.egan@leerink.com
	Amy N. Sonne		amy.sonne@leerink.com

New York
299 Park Avenue, 21st floor
New York, NY 10171
(888) 778-1653

Boston
One Federal Street, 37th Floor
Boston, MA 02110
(800) 808-7525

San Francisco
201 Spear Street, 16th Floor
San Francisco, CA 94105
(800) 778-1164