

Onconova Therapeutics, Inc. (ONTX)

Neutral

Awaiting SPA and Positive Rigo Data

CONCLUSION

Onconova reported 4Q13 financials, ending the year with \$100mn in cash, which we project should fund operations into the 4th quarter in the absence of milestones from Baxter (described below). The company is still awaiting discussions with regulatory authorities to determine next steps in high-risk MDS. While there may be a possibility the company can file on a prespecified hypomethylater-non-responder subgroup, we view it as unlikely and anticipate another study will need to be run. Onconova has begun enrollment in a Phase I/II combo study of oral rigosertib plus azacitidine in 1st-line MDS and has designed a pivotal low-risk MDS Phase III for oral rigosertib which is targeted to start in 2H14 following the SPA process. We maintain our Neutral rating and \$9 price target on Onconova.

- **Clinical development outlook in higher-risk MDS.** Onconova intends to present full data from the ONTIME Phase III in higher risk MDS at ASCO this year. We expect the company to meet with the FDA and possibly EMA before that time and this should provide a better sense of the feasibility of moving forward with a HMA refractory subgroup. Based on feedback from investigators, in 2013 Onconova initiated a single arm Phase III study of I.V. rigosertib in 2nd-line higher-risk MDS patients. This study (04-24) has enrolled 19 patients and should provide additional safety and activity data. Another study, a Phase I/II of oral rigosertib plus I.V. or S.C. azacitidine in ~40 1st-line higher-risk MDS patients, has completed the starting 140mg BID rigosertib and is advancing to 280mg BID. Updates are expected in 2H14.
- **Lower-risk MDS.** In lower-risk MDS, Onconova is enrolling 20 patients to the ongoing Phase II study of oral rigosertib to examine the prognostic ability of genomic methylation markers. The company has also designed a Phase III study and will seek a SPA from the FDA with enrollment projected to begin in 2H14. We believe the primary endpoint is likely to be transfusion independence for at least 8 weeks.
- **Model adjustments.** We are maintaining projected milestone payments totaling \$50mn in 2014, removing a projected \$50mn Phase III data milestone, and maintaining \$100mn in 2015 for high-risk MDS filings in the U.S. and Europe, pending the results of company discussions with the regulatory agencies. We are also maintaining our sales projections for rigosertib in higher-risk MDS. We have applied a 25% probability of success to reflect increased risk in the higher-risk MDS program (see downgrade note from Feb 19th). However, the company may need to complete a financing this year if the milestones are not met.

RISKS TO ACHIEVEMENT OF PRICE TARGET

Principal risks include delay of rigosertib in reaching the market and/or competition from other drugs

COMPANY DESCRIPTION

Onconova focuses on cancer and radiation injury therapies

PRICE: US\$7.44

Note: price is as of the close March 11, 2014

TARGET: US\$9.00

DCF of projected free cash flows for 2015-2026, with a 10% discount rate, 25% probability of success

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Changes	Previous	Current
Rating	—	Neutral
Price Tgt	—	US\$9.00
FY14E Rev (mil)	US\$104.0	US\$54.0
FY15E Rev (mil)	—	US\$125.9
FY14E EPS	US\$0.91	US\$(0.46)
FY15E EPS	US\$(0.04)	US\$1.21
52-Week High / Low	US\$31.13 / US\$7.02	
Shares Out (mil)	20.8	
Market Cap. (mil)	US\$154.8	
Avg Daily Vol (ooo)	373	
Book Value/Share	US\$0.85	
Net Cash Per Share	US\$3.33	
Debt to Total Capital	0%	
Div (ann)	NA	
Fiscal Year End	Dec	

Price Performance - 1 Year



Source: Bloomberg

YEAR	REVENUE (US\$ m)						EARNINGS PER SHARE (US\$)					
	Mar	Jun	Sep	Dec	FY	FY RM	Mar	Jun	Sep	Dec	FY	FY P/E
2013A	1.1	0.6	1.1	1.9	4.8	32.2x	(5.69)	(4.81)	(1.33)	(0.68)	(5.90)	NM
2014E	1.0	51.0	1.0	1.0	54.0	2.9x	(0.69)	1.72	(0.73)	(0.76)	(0.46)	NM
2015E	—	—	—	—	125.9	1.2x	—	—	—	—	1.21	6.1x

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Onconova Earnings Model	2012A	1Q 13A	2Q 13A	3Q 13A	4Q 13A	2013A	1Q 14E	2Q 14E	3Q 14E	4Q 14E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
(\$ in thousands, except per share amounts)																							
US Rigosertib Sales		0	0	0	0	0	0	0	0	0	0	21,930	82,400	152,317	228,856	311,675	390,362	452,161	522,121	581,562	632,689	670,246	709,534
Int'l Rigosertib Sales		0	0	0	0	0	0	0	0	0	0	0	55,587	127,572	187,431	239,444	321,632	369,073	426,819	473,666	515,704	560,140	598,755
Total Rigosertib Sales		0	0	0	0	0	0	0	0	0	0	21,930	137,987	279,889	416,287	551,119	711,994	821,234	948,939	1,055,228	1,148,393	1,230,386	1,308,289
US Rigosertib Sales		0	0	0	0	0	0	0	0	0	0	21,930	82,400	152,317	228,856	311,675	390,362	452,161	522,121	581,562	632,689	670,246	709,534
Ex-US Royalty		0	0	0	0	0	0	0	0	0	0	0	7,782	22,963	37,486	52,678	77,192	95,959	110,973	123,153	134,083	145,636	155,676
License and milestone revenues		0	0	0	0	0	0	50,000	0	0	50,000	100,000	50,000	50,000	100,000	0	0	0	0	0	0	0	0
Collaboration R&D revenues		1,116	591	1,116	1,930	4,753	1,000	1,000	1,000	1,000	4,000	4,000	4,000	3,000	0	0	0	0	0	0	0	0	0
Total Revenues	46,190	1,116	591	1,116	1,930	4,753	1,000	51,000	1,000	1,000	54,000	125,930	144,182	228,280	366,342	364,353	467,553	548,120	633,094	704,715	766,772	815,883	865,210
Costs & Expenses:																							
Cost of Goods Sold	0	0	0	0	0	0	0	0	0	0	0	2,193	14,008	25,894	37,761	49,868	62,458	67,824	78,318	87,234	94,903	100,537	106,430
R&D	52,762	12,756	10,047	15,293	12,086	50,182	10,877	11,317	11,883	12,477	46,554	60,520	69,598	76,558	83,065	87,218	91,579	96,158	100,966	106,014	111,315	116,881	122,725
SG&A	15,707	3,346	3,117	5,927	4,403	16,793	4,403	4,403	4,403	4,403	17,612	36,276	50,787	60,944	70,086	78,496	86,345	93,253	98,848	103,791	108,980	114,429	120,151
Total Operating Expenses	68,469	16,102	13,164	21,220	16,489	66,975	15,280	15,720	16,286	16,880	64,166	98,589	134,392	163,395	190,912	215,582	240,382	257,235	278,132	297,039	315,199	331,847	349,306
Operating Income	(22,279)	(14,986)	(12,573)	(20,104)	(14,559)	(62,222)	(14,280)	35,280	(15,286)	(15,880)	(10,166)	26,941	9,789	64,884	175,430	148,771	227,171	290,885	354,961	407,676	451,573	484,036	515,904
Interest and Other Income (Expense), net	(7,633)	141	11	15	(66)	101	150	132	184	158	624	709	1,168	1,210	1,687	2,990	4,000	5,523	7,378	9,640	12,219	15,104	18,222
Interest Income	0	0	101	0	0	101	150	132	184	158	624	709	1,168	1,210	1,687	2,990	4,000	5,523	7,378	9,640	12,219	15,104	18,222
Interest Expense	(8,608)	0	0	(11)	(1)	(2)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Income (Expense)	975	141	0	16	(65)	92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pretax Income (Loss)	(29,912)	(14,845)	(12,562)	(20,089)	(14,625)	(62,121)	(14,130)	35,412	(15,102)	(15,722)	(9,542)	27,650	10,957	66,094	177,117	151,760	231,171	296,408	362,339	417,316	463,792	499,140	534,127
Income Expense (Benefit)	0	0	0	432	3	0	0	0	0	0	0	1,382	822	9,914	35,423	37,940	69,351	103,743	126,819	146,061	162,327	174,699	186,944
Tax Rate	0.0%	0.0%	0.0%	-2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	7.5%	15.0%	20.0%	25.0%	30.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Other (Accr of preferred stock)	(3,953)	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Income (Loss) GAAP	(33,865)	(14,845)	(12,562)	(20,521)	(14,615)	(62,121)	(14,130)	35,412	(15,102)	(15,722)	(9,542)	26,267	10,135	56,180	141,693	113,820	161,820	192,665	235,520	271,255	301,465	324,441	347,182
Stock option expense	0	600	(1,032)	613	600	781	600	600	600	600	2,400	2,508	2,686	2,715	2,811	2,899	2,976	3,040	3,344	3,678	4,046	4,451	4,896
R&D	0	500	500	500	500	2,000	500	500	500	500	2,000	2,200	2,420	2,662	2,928	3,221	3,543	3,897	4,287	4,716	5,187	5,706	6,277
SG&A	0	100	100	100	100	400	100	100	100	100	400	440	484	532	586	644	709	779	857	943	1,037	1,141	1,255
Other	2,978	(141)	0	(16)	52	(105)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Income (Loss) Non-GAAP	(30,887)	(14,386)	(13,594)	(19,924)	(13,963)	(61,445)	(13,530)	36,012	(14,502)	(15,122)	(7,142)	28,775	12,822	58,895	144,505	116,719	164,796	192,665	235,520	271,255	301,465	324,441	347,182
Diluted Earnings Per Share Non-GAAP	(\$14.00)	(\$5.52)	(\$5.21)	(\$1.29)	(\$0.65)	(\$5.84)	(\$0.66)	\$1.75	(\$0.70)	(\$0.73)	(\$0.35)	\$1.33	\$0.56	\$2.47	\$5.77	\$4.44	\$5.97	\$6.64	\$7.73	\$8.48	\$8.98	\$9.20	\$9.38
Basic Earnings Per Share Non-GAAP	(\$14.00)	(\$5.52)	(\$5.21)	(\$1.29)	(\$0.65)	(\$5.84)	(\$0.66)	\$1.75	(\$0.70)	(\$0.73)	(\$0.35)	\$1.33	\$0.56	\$2.47	\$5.77	\$4.44	\$5.97	\$6.64	\$7.73	\$8.48	\$8.98	\$9.20	\$9.38
Diluted Earnings Per Share GAAP	(\$15.35)	(\$5.69)	(\$4.81)	(\$1.33)	(\$0.68)	(\$5.90)	(\$0.69)	\$1.72	(\$0.73)	(\$0.76)	(\$0.46)	\$1.21	\$0.45	\$2.35	\$5.65	\$4.33	\$5.86	\$6.64	\$7.73	\$8.48	\$8.98	\$9.20	\$9.38
Basic Earnings Per Share GAAP	(\$15.35)	(\$5.69)	(\$4.81)	(\$1.33)	(\$0.68)	(\$5.90)	(\$0.69)	\$1.72	(\$0.73)	(\$0.76)	(\$0.46)	\$1.21	\$0.45	\$2.35	\$5.65	\$4.33	\$5.86	\$6.64	\$7.73	\$8.48	\$8.98	\$9.20	\$9.38
Diluted Shares Outstanding (th)	2,207	2,607	2,609	15,480	21,419	10,529	20,614	20,614	20,614	20,614	20,614	21,645	22,727	23,864	25,057	26,310	27,625	29,006	30,457	31,980	33,578	35,257	37,020
Basic Shares Outstanding (th)	2,207	2,607	2,609	15,480	21,419	10,529	20,614	20,614	20,614	20,614	20,614	21,645	22,727	23,864	25,057	26,310	27,625	29,006	30,457	31,980	33,578	35,257	37,020

Proprietary to Piper Jaffray & Co. March 11, 2014

ONTX: Charles Duncan: 212-284-5025

Current disclosure information for this company can be found at <http://www.piperjaffray.com/researchdisclosures>.

Onconova Balance Sheet (\$thousands)	2012A	1Q 13A	2Q 13A	3Q 13A	4Q 13A	2013A	1Q 14E	2Q 14E	3Q 14E	4Q 14E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
Current assets:																							
Cash and cash equivalents	81,527	67,307	51,181	76,612	60,009	60,009	47,999	82,701	65,425	48,622	48,622	76,785	80,992	128,663	258,976	360,049	512,350	697,795	923,997	1,181,914	1,470,400	1,782,224	2,116,390
Restricted cash	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Accounts receivables	0	0	0	0	0	0	0	0	0	0	2,193	8,240	15,232	22,886	31,168	31,229	27,130	26,106	29,078	31,634	33,512	35,477	
Prepaid expenses and other current assets	1,725	2,666	5,867	5,326	4,387	4,387	4,387	4,387	4,387	4,387	4,387	1,259	2,884	4,586	7,327	7,287	9,351	10,862	12,662	14,094	15,335	16,318	17,304
Total current assets	83,252	69,973	57,048	81,938	64,396	64,396	52,386	87,088	69,812	53,009	53,009	80,237	92,116	148,460	289,189	398,504	552,930	735,887	962,765	1,225,086	1,517,370	1,832,054	2,169,171
Property and equipment, net	463	649	729	652	626	626	1,487	2,308	3,096	3,856	3,856	7,676	11,346	17,498	26,503	38,594	53,676	69,626	85,584	101,788	118,465	135,836	154,115
Long-term available for sale securities	0	0	0	39,990	39,994	39,994	39,994	39,994	39,994	39,994	39,994	39,994	39,994	39,994	39,994	39,994	39,994	39,994	39,994	39,994	39,994	39,994	39,994
Restricted cash	125	125	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other assets	12	12	12	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137
Total assets	83,852	70,759	57,914	122,717	105,153	105,153	94,004	129,528	113,039	96,996	96,996	128,045	143,593	206,090	355,822	477,229	646,737	845,644	1,088,479	1,367,005	1,675,967	2,008,021	2,363,417
Current liabilities:																							
Accounts payable	5,517	4,243	4,410	4,405	3,710	3,710	5,819	6,049	5,605	5,640	5,640	8,909	12,095	14,706	17,182	19,402	21,634	23,151	25,032	26,734	28,368	29,866	31,438
Accrued expenses	3,925	5,559	5,338	7,888	5,840	5,840	7,113	7,394	6,851	6,894	6,894	9,899	13,439	16,340	19,091	21,558	24,038	25,724	27,813	29,704	31,520	33,185	34,931
Other current liabilities	12,029	14,442	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Long term debt, current portion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deferred revenue - current portion	3,907	3,986	3,509	2,530	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788	788
Total current liabilities	25,378	28,230	13,307	14,833	10,338	10,338	13,720	14,231	13,244	13,322	13,322	19,596	26,323	31,833	37,061	41,749	46,461	49,663	53,633	57,225	60,676	63,839	67,162
Long term debt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deferred revenue	15,421	14,250	14,136	14,023	13,909	13,909	12,909	11,909	10,909	9,909	9,909	5,909	1,909	0	0	0	0	0	0	0	0	0	0
Other liabilities	44	64	47	30	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Total liabilities	40,843	42,544	27,490	28,886	24,253	24,253	26,635	26,146	24,159	23,237	23,237	25,511	28,238	31,839	37,067	41,755	46,467	49,669	53,639	57,231	60,682	63,845	67,162
Stockholders' equity:																							
Common Stock (+preferred)	154	154	203,392	214	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215	215
Additional paid in capital	211,208	211,252	22,787	309,916	311,093	311,093	311,093	311,093	311,093	311,093	311,093	311,093	311,093	311,093	311,093	311,093	311,093	311,093	311,093	311,093	311,093	311,093	311,093
Accumulated other comprehensive loss	0	7	5	(18)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Accumulated Deficit	(168,353)	(183,198)	(195,760)	(216,281)	(230,409)	(230,409)	(243,939)	(207,927)	(222,429)	(237,551)	(237,551)	(208,775)	(195,954)	(137,058)	7,446	124,165	288,961	484,667	723,531	898,465	1,303,976	1,632,867	1,984,946
Total stockholders' equity	43,009	28,215	30,424	93,831	80,900	80,900	67,370	103,382	88,880	73,758	73,758	102,534	115,355	174,251	318,755	435,474	600,270	795,976	1,034,840	1,309,774	1,615,285	1,944,176	2,296,255
Total liabilities and stockholders' equity	83,852	70,759	57,914	122,717	105,153	105,153	94,004	129,528	113,039	96,996	96,996	128,045	143,593	206,090	355,822	477,229	646,737	845,644	1,088,479	1,367,005	1,675,967	2,008,021	2,363,417

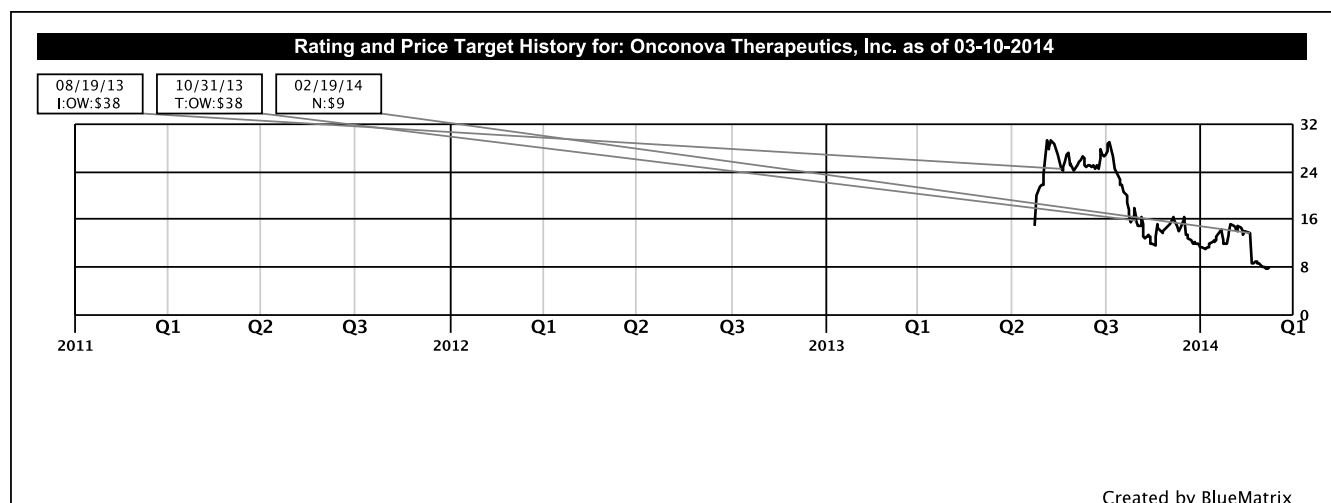
Proprietary to Piper Jaffray & Co. March 11, 2014

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For up to date disclosures on this company, please see www.piperjaffray.com/researchdisclosures.

Onconova Statement of Cash Flows	2012A	1Q 13A	2Q 13A	3Q 13A	4Q 13A	2013A	1Q 14E	2Q 14E	3Q 14E	4Q 14E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E
(\$ in thousands)																							
CASH FLOWS FROM OPERATING ACTIVITIES																							
Net Income (Loss)		(14,845)	(12,562)	(20,521)	(14,615)	(62,543)	(14,130)	35,412	(15,102)	(15,722)	(9,542)	26,267	10,135	56,180	141,693	113,820	161,820	192,665	235,520	271,255	301,465	324,441	347,182
Adjustments																							
Depreciation and amortization		98	109	73	65	345	63	149	231	310	752	1,157	2,303	3,404	4,375	5,301	5,789	8,051	10,444	12,838	15,268	17,770	20,375
Stock based compensation		2,465	379	613	600	4,057	600	600	600	600	2,400	2,508	2,686	2,715	2,811	2,899	2,976	3,040	3,344	3,678	4,046	4,451	4,896
Other		(14)	2	0	0	(12)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Change in assets and liabilities:																							
Account receivables		0	0	0	0	0	0	0	0	0	0	(2,193)	(6,047)	(6,992)	(7,654)	(8,282)	(61)	4,099	1,024	(2,972)	(2,556)	(1,878)	(1,964)
Prepaid expenses & other assets		(941)	(3,201)	541	939	(2,662)	0	0	0	0	0	3,128	(1,624)	(1,682)	(2,761)	40	(2,064)	(1,611)	(1,699)	(1,432)	(1,241)	(982)	(987)
Accounts payable, accrued expenses & other liabilities		380	(71)	2,555	(2,753)	111	3,382	511	(987)	78	2,984	6,274	6,727	5,511	5,228	4,687	4,712	3,202	3,970	3,592	3,450	3,163	3,317
Deferred Revenues		(1,092)	(591)	(1,092)	(1,856)	(4,631)	(1,000)	(1,000)	(1,000)	(1,000)	(4,000)	(4,000)	(4,000)	(1,909)	0	0	0	0	0	0	0	0	0
Net cash provided by (used in) operating activities	(13,949)	(15,935)	(17,831)	(17,620)	(65,335)	(11,086)	35,672	(16,258)	(15,734)	(7,405)	33,140	10,180	57,227	143,692	118,465	173,172	209,447	252,603	286,959	320,432	346,964	372,820	
CASH FLOWS FROM INVESTING ACTIVITIES																							
Purchases of property and equipment		(284)	(189)	(198)	(208)	(880)	(924)	(970)	(1,019)	(1,069)	(3,982)	(4,977)	(5,973)	(9,556)	(13,379)	(17,392)	(20,871)	(24,001)	(26,402)	(29,042)	(31,946)	(35,140)	(38,654)
Investments, net		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net cash used in investing activities	(284)	(189)	(198)	(208)	(880)	(924)	(970)	(1,019)	(1,069)	(3,982)	(4,977)	(5,973)	(9,556)	(13,379)	(17,392)	(20,871)	(24,001)	(26,402)	(29,042)	(31,946)	(35,140)	(38,654)	
CASH FLOWS FROM FINANCING ACTIVITIES																							
Proceeds from issuance of shares, net cost		0	0	74,838	0	74,838	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exercise of options		6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Proceeds from debt, net		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Repurchase of common stock		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net cash provided by financing activities	0	6	0	74,838	0	74,844	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Effect of foreign currency translation on cash		7	(2)																				
Net increase in cash and cash equivalents	78,814	(14,220)	(16,126)	56,809	(17,828)	8,630	(12,010)	34,702	(17,276)	(16,803)	(11,387)	28,163	4,207	47,671	130,313	101,073	152,301	185,445	226,201	257,917	288,486	311,824	334,165
Cash and cash equivalents at beginning of period	2,713	81,527	67,307	51,181	76,612	81,527	60,009	47,999	82,701	65,425	60,009	48,622	76,785	80,992	128,663	258,976	360,049	512,350	697,795	923,997	1,181,914	1,470,400	1,782,224
Cash and cash equivalents at end of period	81,527	67,307	51,181	107,990	58,784	90,157	47,999	82,701	65,425	48,622	48,622	76,785	80,992	128,663	258,976	360,049	512,350	697,795	923,997	1,181,914	1,470,400	1,782,224	2,116,390

IMPORTANT RESEARCH DISCLOSURES



Notes: The boxes on the Rating and Price Target History chart above indicate the date of the Research Note, the rating, and the price target. Each box represents a date on which an analyst made a change to a rating or price target, except for the first box, which may only represent the first Note written during the past three years.

Legend:

I: Initiating Coverage
R: Resuming Coverage
T: Transferring Coverage
D: Discontinuing Coverage
S: Suspending Coverage
OW: Overweight
N: Neutral
UW: Underweight
NA: Not Available
UR: Under Review

Distribution of Ratings/IB Services Piper Jaffray				
Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [OW]	352	59.46	83	23.58
HOLD [N]	220	37.16	22	10.00
SELL [UW]	20	3.38	0	0.00

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Analyst Certification — Charles C. Duncan, PhD, Sr. Research Analyst — Roy Buchanan, Ph.D., Research Analyst

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