

3Q12 Update; MM-398 Data mid-2013; Raising Target Price to \$14 from \$12

Buy

PT: \$14.00 (from 12.00)

Investment Summary

- The most anticipated update from MACK was the guidance for completion of its pivotal Phase 3 study for MM-398 in second-line pancreatic cancer. MACK now expects to have initial data mid-2013 in line with its original guidance, but better than expectations following expansion of the trial in June 2012 to include an additional treatment arm. Therefore, we are pulling our launch year forward to 2014 from 2015 for MM-398, which increases our NPV and price target to \$14 from \$12.
- Importantly, the company should have sufficient cash following a \$40M line of credit from Hercules to get to MM-398 data BEFORE potentially raising more capital in a secondary offering. We expect multiple Phase 2 readouts for MM-121 in breast and lung cancer to drive incremental value.

Discussion

NAPOLI-1 is a pivotal Phase 3 study for MM-398 in second-line metastatic pancreatic cancer trial in patients who have previously failed gemcitabine. In January 2012, MACK initiated NAPOLI-1 to evaluate MM-398 alone and in combination with 5-FU Leucovorin vs. 5-FU Leucovorin alone in a three arm trial (N=405) with a primary endpoint of overall survival. We believe a positive outcome would be an 8-week improvement in overall survival when the MM-398/5-FU Leucovorin combination arm is compared to 5-FU Leucovorin alone in second line patients. MACK now expects to have initial data from NAPOLI-1 by mid-2013, which is in line with its original guidance, but better than our expectation following expansion of the trial in June 2012 to include an additional treatment arm (MM-398 + 5-FU/Leucovorin combination). Therefore, we are pulling our launch expectation for MM-398 forward to 2014 from 2015, which increases our NPV and price target to \$14 from \$12 (see Exhibit 1). Pending a positive outcome to NAPOLI-1, we expect MM-398 to launch 2H14 with global peak sales in pancreatic cancer alone reaching \$800M.

MACK unveils first Phase 2 studies for MM-111 and remains largely on track to deliver Phase 2 data for MM-121 during 1H13. MACK plans to enroll up to 180 patients with HER2+ gastric cancer who have failed 5-FU/platinum based chemotherapy that will be randomized based on HER2 expression in an adaptive study to compare paclitaxel +/- MM-121 +/- Herceptin (depending on HER2 expression). MACK also reiterated the timing of 6 out of 7 Phase 2 trials for MM-121 (partnered with Sanofi) with the first three of these studies delivering data in 1H13 (See Exhibit 2).

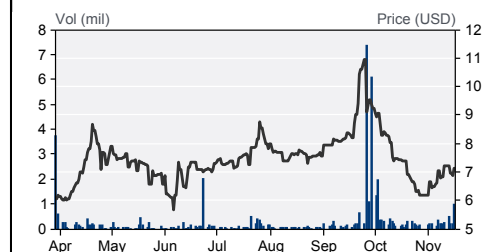
MACK reported a net loss of \$23M which was slightly greater than our net loss estimate of \$22M. MACK has a broad pipeline with 6 clinical stage candidates led by MM-398 in Phase 3 development for second-line pancreatic cancer. Given MACK's early stage of development, our thesis is not yet impacted by differences in quarterly earnings. MACK exited 3Q12 with approximately \$86M in cash plus another \$40M in short-term debt, which we forecast is sufficient to fund development through 2013.

Valuation / Target Price

Our \$14 target price for MACK shares is based on the NPV of MM-398 global revenue (discounted 20%) in pancreatic cancer alone, which we forecast will peak at \$800M (see Exhibit 1). We assume orphan pricing for MM-398 peaking at \$80k per course in the US with conservative peak penetration in the US (35%) and ex-U.S. (25%). MACK's early stage pipeline, which is not included in our revenue forecasts, lends significant upside to our current valuation.

Price	\$7.14
52-Week High/Low	\$11.11-\$5.66
Shares Out (mm)	94.2
Market Cap (mm)	\$672
Avg. Daily Vol (000)	466,790
Short Interest	3.5%
Cash (mm)	NA
EV (mm)	\$566.0
Book Value / Share	NA

EPS	FY11A	FY12E	FY13E
Mar	--	\$(2.14)A	--
June	--	\$(0.22)A	--
Sept	--	\$(0.25)A	--
Dec	--	\$(0.26)	--
FY (Dec)	\$(7.67)	\$(1.26)	\$(0.78)
P/E (x)	NM	NM	NM
Revenue (\$M)			
FY (Dec)	\$34.2	\$45.7	\$50.0
P/S (x)	19.7	14.7	13.5



Source: Bloomberg

Exhibit 1: MACK NPV Valuation

	2012E	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
U.S Pancreatic cancer prevalence		33,000	33,000	33,000	33,000	33,000	33,000	33,000	33,000	33,000	33,000	33,000	33,000	33,000
Second-line (gemcitabine failures)			29,700	29,700	29,700	29,700	29,700	29,700	29,700	29,700	29,700	29,700	29,700	29,700
MM-398 penetration			5%	15%	27%	33%	33%	33%	33%	33%	33%	33%	33%	33%
Patients treated			1,485	4,455	8,019	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801	9,801
monthly cost (\$000)			\$ 9,000	\$ 9,360	\$ 9,734	\$ 10,124	\$ 10,529	\$ 10,950	\$ 11,388	\$ 11,843	\$ 12,317	\$ 12,810	\$ 13,322	\$ 13,855
avg. duration of therapy (months)			2	4	5	5	5	5	5	5	5	5	5	5
annual cost (\$000) based on duration			\$ 18,000	\$ 37,440	\$ 48,672	\$ 50,619	\$ 52,644	\$ 54,749	\$ 56,939	\$ 59,217	\$ 61,586	\$ 64,049	\$ 66,611	\$ 69,275
MM-398 US pancreatic revenue (\$mil)			\$ 26.73	\$ 166.80	\$ 390.30	\$ 496.12	\$ 515.96	\$ 536.60	\$ 558.06	\$ 580.39	\$ 603.60	\$ 627.74	\$ 652.85	\$ 678.97
MM-398 Revenue			\$ 27	\$ 167	\$ 390	\$ 496	\$ 516	\$ 537	\$ 558	\$ 580	\$ 604	\$ 628	\$ 653	\$ 679
NI margin			55.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%
Net income from MM-398		\$ -	\$ 15	\$ 108	\$ 254	\$ 322	\$ 335	\$ 349	\$ 363	\$ 377	\$ 392	\$ 408	\$ 424	\$ 441
discount 20%														
NPV \$899.15														
sharess outstanding 90														
NPV of MM-398net margin \$10														
	2012E	2013E	2014E	2015E	2016E	2017E	2018E	2019E	2020E	2021E	2022E	2023E	2024E	2025E
ex-U.S Pancreatic cancer prevalence														
Second-line (gemcitabine failures)				29,700	29,700	29,700	29,700	29,700	29,700	29,700	29,700	29,700	29,700	29,700
MM-398 penetration				5%	15%	22%	25%	25%	25%	25%	25%	25%	25%	25%
Patients treated				1,485	4,455	6,534	7,425	7,425	7,425	7,425	7,425	7,425	7,425	7,425
monthly cost (\$000)				\$ 7,956	\$ 7,717	\$ 7,486	\$ 7,261	\$ 7,043	\$ 6,832	\$ 6,627	\$ 6,428	\$ 6,235	\$ 6,048	\$ 5,867
avg. duration of therapy (months)				2.0	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
annual cost (\$000) based on duration				\$ 15,912	\$ 30,869	\$ 37,429	\$ 36,306	\$ 35,217	\$ 34,160	\$ 33,136	\$ 32,142	\$ 31,177	\$ 30,242	\$ 29,335
MM-398 pancreatic revenue (\$mil)				\$ 23.63	\$ 137.52	\$ 244.56	\$ 269.57	\$ 261.49	\$ 253.64	\$ 246.03	\$ 238.65	\$ 231.49	\$ 224.55	\$ 217.81
MM-398 Revenue				\$ 24	\$ 138	\$ 245	\$ 270	\$ 261	\$ 254	\$ 246	\$ 239	\$ 231	\$ 225	\$ 218
NI margin				55.0%	55.0%	65.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Net income from MM-398				\$ 13	\$ 76	\$ 159	\$ 189	\$ 183	\$ 178	\$ 172	\$ 167	\$ 162	\$ 157	\$ 152
discount 20%														
NPV \$362.98														
sharess outstanding 90														
NPV of MM-398net margin \$4														

Source: Company reports and Brean Capital, LLC

Exhibit 2: Select Pipeline Milestones

MACK Late Stage Pipeline Development Milestones			
MM-398 (encapsulated irinotecan)	Indication/Setting	Comment	Timing
Phase 3 (NAPOLI-1)	pancreatic (2nd line)	1° OS; N= 405; Randomization= MM-398 vs. 5FU Leucovorin vs 5FU Leucovorin + MM-398	YE13
Phase 2	CRC	Investigator sponsored studies that will evaluate MM-398+5FU Leucovorin vs. FOLFIRI	Pending update
MM-121 (ErbB3 Mab)	Indication/Setting	Comment	Timing
Phase 2	NSCLC (EGFR naïve, EGFR refractory, EGFR responders)	1° PFS; N= 260; Randomization= RMM-121 + Tarceva vs. Tarceva; Phase 1 dose escalation into Phase 2	1H13
Phase 2	breast (mets HER-, ER+, PR+)	1° PFS; N= 130; Randomization= MM-121 + Exemestane vs. Exemestane in anti-estrogen failures	1Q13
Phase 2	breast (neoadjvant HER-, ER+)	1° RR; N= 200; Randomization= MM-121 + paclitaxel vs. paclitaxel in neo-adjuvant setting	2H13
Phase 2	Ovarian (platinum resistant)	1°= PFS (38 wks); N= 210; Randomization= 2:1, MM-121 + paclitaxel vs. paclitaxel	2015
MM-111 (ErbB3, ErbB2 bi-specific)	Indication/Setting	Comment	Timing
Phase 2	HER2+ and FISH+/FISH- gastric cancer	1°= PFS; N= 180; Randomization= paclitaxel +/- MM-111 +/- Herceptin	2014

Source: Company reports and Brean Capital, LLC

Exhibit 2: MACK Income Statement

Merrimack Pharmaceuticals

INCOME STATEMENT

Brean Murray, Carret & Co.

Gene Mack, 212.702.6616

Fiscal Period: ends Dec. 31

	2010	2011	1Q	2Q	3Q	4QE	2012E	2013E	2014E	2015E
MM-398 US sales	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 26.7	\$ 166.8
MM-398 ex-US sales	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23.6
Total WW sales MM-398	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 26.7	\$ 190.4
Product sales, net	-	-	-	-	-	-	-	-	26.7	190.4
Collaboration revenue	20.3	34.2	11.3	12.1	11.3	11.0	45.7	50.0	55.0	60.0
Other Revenue	-	-	-	-	-	-	-	-	-	-
Total Revenue	\$ 20.3	\$ 34.2	\$ 11.3	\$ 12.1	\$ 11.3	\$ 11.0	\$ 45.7	\$ 50.0	\$ 81.7	\$ 250.4
Cost of product sales	-	-	-	-	-	-	-	-	3.5	22.9
Gross Profit	20.3	34.2	11.3	12.1	11.3	11.0	45.7	50.0	78.3	227.6
Research and development	58.3	100.6	31.7	28.8	30.9	31.7	123.0	135.0	145.0	150.0
Selling, general and administrative	11.4	14.5	3.7	3.6	4.3	5.0	16.6	22.0	26.6	76.6
Contingent consideration	(0.2)	-	-	-	-	-	-	-	-	-
Amortization of intangible assets	-	-	-	-	-	-	-	-	-	-
Total operating expense (including COGS)	69.5	115.1	35.4	32.4	35.2	36.7	139.6	157.0	175.0	249.5
Operating Income	(49.2)	(80.9)	(24.0)	(20.3)	(23.9)	(25.7)	(93.9)	(107.0)	(93.3)	0.9
Interest Income	0.1	0.1	-	-	-	-	-	-	-	-
Interest expense	(3.7)	(0.0)	-	-	-	-	-	-	-	-
Other Income/ Expense	2.7	1.2	0.6	0.2	0.6	0.5	1.9	-	-	-
net loss (gain) from non-controlling interest	0.1	0.5	0.1	0.1	0.1	0.1	0.5	-	-	-
Net Income Before Taxes	(50.1)	(79.2)	(23.3)	(20.0)	(23.2)	(25.0)	(91.6)	(107.0)	(93.3)	0.9
Provision for Income Taxes	-	-	-	-	-	-	-	(27.3)	(23.3)	0.2
Net Income After Taxes	\$ (50.1)	\$ (79.2)	\$ (23.3)	\$ (20.0)	\$ (23.2)	\$ (25.0)	\$ (91.6)	\$ (79.7)	\$ (70.0)	\$ 0.7
Basic Weighted Average Shares	11.0	11.3	11.8	90.6	93.7	94.7	72.7	102.1	103.1	104.2
Diluted Weighted Average Shares	11.0	11.3	11.8	90.6	93.7	94.7	72.7	102.1	103.1	104.2
Basic EPS as-reported (GAAP)	\$ (4.56)	\$ (6.98)	\$ (1.97)	\$ (0.22)	\$ (0.25)	\$ (0.26)	\$ (1.26)	\$ (0.78)	\$ (0.68)	\$ 0.01
Diluted EPS as-reported (GAAP)	\$ (5.57)	\$ (7.67)	\$ (2.14)	\$ (0.22)	\$ (0.25)	\$ (0.26)	\$ (1.26)	\$ (0.78)	\$ (0.68)	\$ 0.01
Cash and Equivalents	\$ 31	\$ 50	\$ 106	\$ 87			\$ 48	\$ 105	\$ 72	\$ 109

E=Estimate

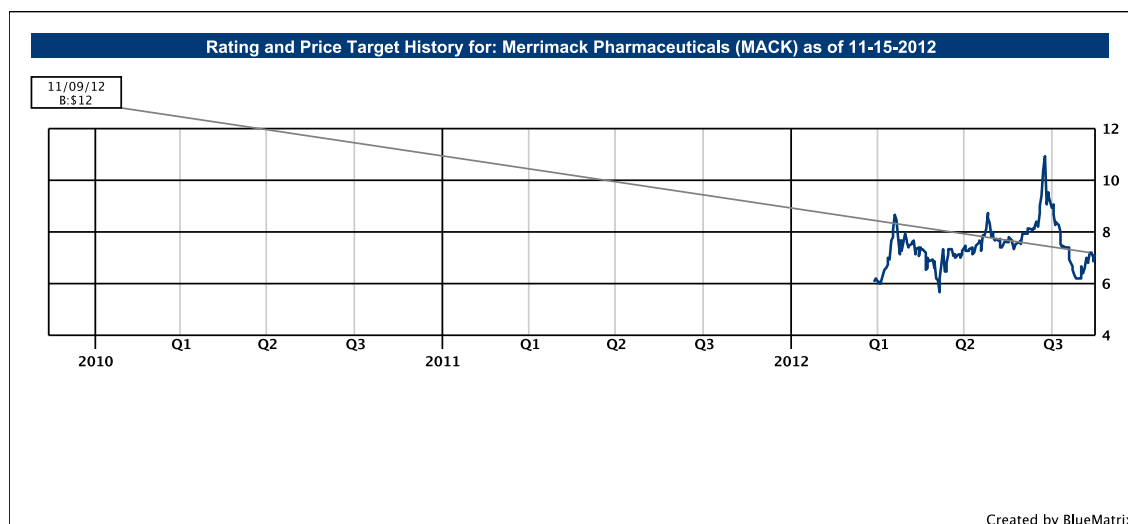
Source: Company reports and Brean Capital, LLC

Risks

Key risks to MACK shares include: (1) significant clinical failure risk of MM-398 or any of the the company's other candidates in ongoing and planned clinical trials; (2) regulatory risk stemming from FDA perception of adequate data support for approval of MM-398 in any of the indications in which it is being developed or any of the other candidates in MACK's pipeline; and (3) financial risk from disappointing outcomes to MM-121 clinical studies should Sanofi choose to end the co-development arrangement; (4) risk from failure to successfully invalidate third party patent claims in an ongoing opposition proceeding in Europe that could otherwise limit the ability of MM-121 and MM-111 to be commercialized in Europe.

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Buy - Expected to appreciate by at least 10% within the next 12 months.

Hold - Fully valued, not expected to appreciate or decline materially within the next 12 months.

Sell - Expected to decline by at least 10% within the next 12 months.

Rating Category	Count	Percent	IB Serv./ Past 12Mos.	
			Count	Percent
BUY	134	68.02%	69	51.49%
HOLD	60	30.46%	25	41.67%
SELL	3	1.52%	2	66.67%
NOT RATED				

Note: Stock price volatility may cause temporary non-alignment of some ratings with some target prices.

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