

## Merrimack Pharmaceuticals

### Updating Model Post 2Q

Merrimack reported 2Q12 results with a GAAP bottom-line loss of \$0.22, which is lower than our and Street expectations (JPMe: -\$0.30 and cons: -\$0.25) based on lower R&D expenses and a higher share count. The company continues to make progress on the pipeline overall. On the call, the company reviewed the expansion of its phase 3 NAPOLI-1 to include a comparator arm with 5-fluorouracil (5-FU) and leucovorin (folinic acid) (LV) as a means to increase its market opportunity. Indeed, we project that MM-398 could support a \$900M peak opportunity in the US alone including pancreatic cancer and other indications. Additionally, MM-121, partnered with Sanofi, continues to advance in phase 2 trials in lung, breast and ovarian cancer, with blockbuster potential in the US alone (escalating royalties starting in the high teens assuming co-promote). As the pipeline continues to advance, we expect significant clinical de-risking events in 2013. As such, we reiterate our Overweight rating and are establishing a December 2013 price target of \$11, from prior December 2012 price target of \$10.

- **MM-398 phase 3 trial expansion:** On the call, Merrimack reviewed the expansion of its phase 3 NAPOLI-1 for MM-398 to include MM-398 in combination with 5-Fluorouracil and Leucovorin. The expansion was taken for three reasons: (1) clinical relevance, (2) a potentially broader label, and (3) a larger patient population. Recall, NAPOLI-1 trial investigates MM-398 in second-line metastatic pancreatic cancer with enrollment ongoing. Data timelines for this trial will be updated in the future (previously mid-2013), given the trial expansion.
- **Beyond MM-121:** In the near term, we expect additional phase 1 data for MM-121 and MM-111 to be presented at ESMO (September 28- October 2, Vienna). Key catalysts are weighted towards 2013 for MM-121 in breast cancer and NSCLC, expected 1H13, while ovarian is expected 2014.
- **Adjusting estimates.** Following 2Q12 results, we are fine-tuning our model and adjusting the shares outstanding. As such, our 2012-14 GAAP EPS estimates change to \$(2.90), \$(1.19) and \$(0.45) from \$(3.07), \$(1.41) and \$(0.73), respectively.
- **Reiterate Overweight rating.** Establishing December 2013 PT of \$11 (previous December 2012 PT of \$10).

## Overweight

**MACK, MACK US**

Price: \$7.37

▲ **Price Target: \$11.00**  
Previous: \$10.00

### US Biotechnology

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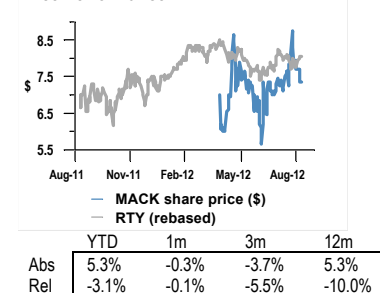
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### Price Performance



### Merrimack Pharmaceuticals (MACK;MACK US)

FYE Dec	2010A	2011A	2012E	2012E	2013E	2013E	2014E	2014E
			(Prev)	(Curr)	(Prev)	(Curr)	(Prev)	(Curr)
EPS Reported (\$)								
Q1 (Mar)	-	-	(2.14)A	(2.14)A	-	-	-	-
Q2 (Jun)	-	-	(0.30)	(0.22)A	-	-	-	-
Q3 (Sep)	-	-	(0.31)	(0.27)	-	-	-	-
Q4 (Dec)	-	-	(0.32)	(0.27)	-	-	-	-
FY	(5.57)	(7.67)	(3.07)	(2.90)	(1.41)	(1.19)	(0.73)	(0.45)

Source: Company data, Bloomberg, J.P. Morgan estimates.

### Company Data

Price (\$)	7.37
Date Of Price	09 Aug 12
52-week Range (\$)	9.20 - 5.66
Mkt Cap (\$ mn)	715.49
Fiscal Year End	Dec
Shares O/S (mn)	97
Price Target (\$)	11.00
Price Target End Date	31 Dec 13

### See page 5 for analyst certification and important disclosures.

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## Changes to Our Model

Following 2Q12 results, we are fine-tuning our model and adjusting the shares outstanding. As such, our 2012-14 GAAP EPS estimates change to \$(2.90), \$(1.19) and \$(0.45) from \$(3.07), \$(1.41) and \$(0.73), respectively.

Table 1: Change to Out Model

	2012E OLD	2012E NEW	2013E OLD	2013E NEW	2014E OLD	2014E NEW
Total Revenue	37.144	46.4	36.0	50.0	147.9	164.9
R&D	134.051	126.0	160.9	151.2	193.0	181.5
SG&A	17.128	14.9	19.7	17.2	24.6	21.5
Total Op Ex	151.179	140.9	180.6	168.4	228.6	213.9
Net income	(110.9)	(91.9)	(141.5)	(116.0)	(77.8)	(46.7)
<b>EPS</b>	<b>(3.07)</b>	<b>(2.90)</b>	<b>(1.41)</b>	<b>(1.19)</b>	<b>(0.73)</b>	<b>(0.45)</b>
<i>fully diluted shares</i>	73.4	70.9	100.4	97.1	106.9	103.6

Source: J.P. Morgan estimates.

## Investment Thesis

Merrimack's proprietary Network Biology Platform has the potential to dramatically improve the productivity of drug discovery / development in oncology. Indeed, the company has a robust pipeline (5 clinical, 3 preclinical assets) with multiple opportunities across a variety of cancers. Lead asset, MM-398, is the key driver currently in phase 3 development for pancreatic cancer with data in mid-2013 (\$900M peak opportunity in the US alone). Additionally, MM-121, partnered with Sanofi, is currently in Phase 2 trials for NSCLC, breast and ovarian cancer (data 2013-14) with peak sales potential of \$1.3B in the US alone (driving royalties of ~\$320M). Importantly, we believe Merrimack's Network Biology Platform has been validated by the recent phase 1 data for MM-121 and MM-111 and to some extent the Sanofi partnership. We see multiple value creation opportunities with de-risking clinical events over the course of 2012-13.

## Valuation

We are establishing a December 2013 price target of \$11, which replaces our previous December 2012 PT of \$10. Our December 2013 price target for MACK shares is based on our sum-of-the-parts analysis, which includes US sales of MM-398, MM-121 and MM-111. In our analysis we use a discount rate of 15% (consistent with other biotech companies at similar stages of development) and assume no terminal value. For MM-398 we project US sales in pancreatic cancer to 2027 (consistent with patent expiration) with modest contributions from other indications (CRC, SCLC and GBM) and apply a 60% probability of success. This implies a value of ~\$7/share. For MM-121, we apply a 40% probability of success to royalties on US sales in NSCLC to 2028 with modest contribution from other indication (BC and OC). This implies a value of ~\$3/share. For MM-111 we apply a 25% probability of success to US sales in HER2+ breast cancer to 2029 with modest contribution in other cancers (gastric and bladder). ~This analysis implies a ~\$0.5/share. We assume net cash of ~\$1/share. Taken together, our sum-of-the-parts support our Dec 2013 target of \$11/share.

### Risks to Rating and Price Target

We see three primary risks to our Overweight rating on MACK shares. These risks include: 1) failure of MM-398 to demonstrate a meaningful benefit in phase 3 in pancreatic cancer, 2) inability to gain regulatory approval for MM-398 and other pipeline assets, and 3) inability to defend existing patent estate.

## Merrimack Pharmaceuticals: Summary of Financials

Income Statement - Annual	FY11A	FY12E	FY13E	FY14E	Income Statement - Quarterly	1Q12A	2Q12A	3Q12E	4Q12E
Revenues	34	46	50	165	Revenues	11A	12A	11	12
Cost of products sold	101	126	151	181	Cost of products sold	32A	29A	32	33
Gross profit	(66)	(80)	(101)	(17)	Gross profit	(20)A	(17)A	(21)	(21)
SG&A	14	15	17	21	SG&A	4A	4A	4	4
R&D	32	151	181	218	R&D	32A	33A	126	-
Operating Income	(81)	(95)	(118)	(49)	Operating income	(24)A	(20)A	(25)	(25)
Note: EBITDA	(81)	(95)	(118)	(49)	Note: EBITDA	(24)A	(20)A	(25)	(25)
Net interest income / (expense)	0	2	2	2	Net interest income / (expense)	1A	0A	1	1
Other income / (expense)	-	-	-	-	Other income / (expense)	-	-	-	-
Pretax income	(80)	(92)	(116)	(47)	Pretax income	(23)A	(20)A	(24)	(24)
Income taxes	0	(0)	0	0	Income taxes	0A	(0)A	0	0
Net income - GAAP	-	-	-	-	Net income - GAAP	-	-	-	-
Net income - recurring	-	-	-	-	Net income - recurring	-	-	-	-
Diluted shares outstanding	11	71	97	104	Diluted shares outstanding	12A	91A	91	91
EPS - excluding non-recurring	(7.67)	(2.90)	(1.19)	(0.45)	EPS - excluding non-recurring	(2.14)A	(0.22)A	(0.27)	(0.27)
EPS - recurring	0.00	0.00	0.00	0.00	EPS - recurring	0.00A	0.00A	0.00	0.00
Balance Sheet and Cash Flow Data	FY11A	FY12E	FY13E	FY14E	Ratio Analysis	FY11A	FY12E	FY13E	FY14E
Cash and cash equivalents	50	67	46	56	Sales growth	-	-	-	-
Accounts receivable	7	9	11	13	EBIT growth	-	-	-	-
Inventories	-	-	-	-	EPS growth	-	-	-	-
Other current assets	0	0	0	0	Gross margin	-	-	-	-
Current assets	66	85	67	82	EBIT margin	-	-	-	-
PP&E	6	7	8	10	EBITDA margin	-	-	-	-
Total assets	85	106	89	105	Tax rate	-	-	-	-
Total debt	-	-	-	-	Net margin	-	-	-	-
Total liabilities	26	26	26	26	Debt / EBITDA	-	-	-	-
Shareholders' equity	(22)	(1)	(18)	(2)	Debt / Capital (book)	-	-	-	-
Net income (including charges)	-	-	-	-	Return on assets (ROA)	-	-	-	-
D&A	-	-	-	-	Return on equity (ROE)	-	-	-	-
Change in working capital	-	-	-	-	Return on invested capital (ROIC)	-	-	-	-
Other	-	-	-	-	Enterprise value / sales	-	-	-	-
Cash flow from operations	-	-	-	-	Enterprise value / EBITDA	-	-	-	-
Capex	-	-	-	-	Free cash flow yield	-	-	-	-
Free cash flow	-	-	-	-					
Cash flow from investing activities	-	-	-	-					
Cash flow from financing activities	-	-	-	-					
Dividends	-	-	-	-					
Dividend yield	-	-	-	-					

Source: Company reports and J.P. Morgan estimates.

Note: \$ in millions (except per-share data). Fiscal year ends Dec

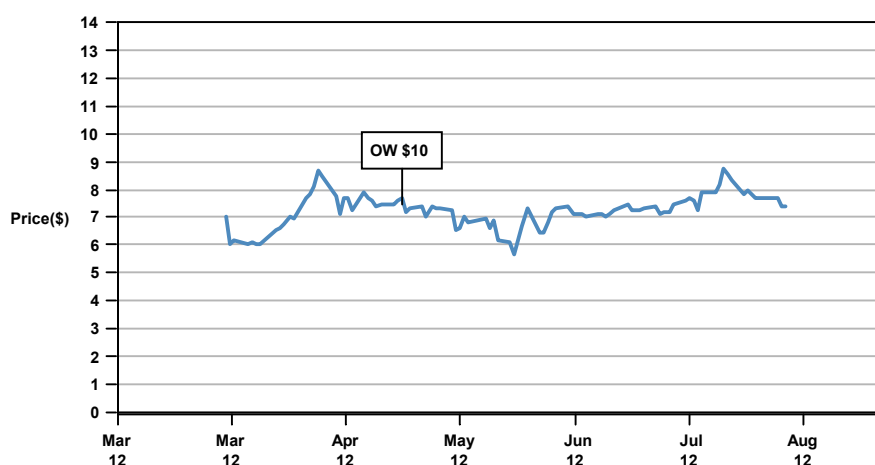
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Merrimack Pharmaceuticals (MACK, MACK US) Price Chart



Source: Bloomberg and J.P. Morgan; price data adjusted for stock splits and dividends.  
Initiated coverage May 08, 2012.

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