

## Merrimack Pharmaceuticals

### Updating Model Post 1Q

Merrimack reported 1Q12 results with a GAAP loss per share of \$2.14 that was greater than our and Street expectations (JPMe: -\$0.18 and cons: -\$0.22) based on higher R&D expense and a lower share count. Merrimack ended 1Q with cash of \$131M (including net proceeds of \$100.5M from the recent IPO) expected to support operations into 2H13. Although there was little new in the press release, the key takeaway is that the pipeline is progressing on multiple fronts (5 clinical; and 3 preclinical assets). Recall lead asset MM-398 is currently in phase 3 development for pancreatic cancer, which could support a \$900M peak opportunity in the US alone. 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). With a robust pipeline that continues to advance, we expect a significant flow of de-risking clinical events in the 2012-2013 timeframe. As such, we reiterate our Overweight rating.

- **Review of catalysts.** Data from the phase 3 NAPOLI-1 trial of MM-398 in second-line metastatic pancreatic cancer is expected in mid 2013. Data from the phase 2 trial of MM-121 in breast cancer is expected in 1H13, while data in NSCLC and ovarian cancer are expected in 2H13. More near term, data from phase 1 trials of MM-121 + erlotinib in NSCLC and MM-111 in HER2+ solid tumors will be presented at ASCO (June 1-5, Chicago). We also expect additional phase 1 data for MM-121 and MM-111 to be presented at ESMO (September 28- October 2, Vienna) and SABC (December 4-8, San Antonio), respectively.
- **Adjusting estimates.** Following 1Q12 results, we are fine-tuning our model. Specifically, we have modestly increased operating expenses, driven primarily by R&D to support a broadly advancing pipeline. We have also fine-tuned our shares outstanding. Our 2012-2014 GAAP EPS estimates change to (\$3.07), (\$1.41), and (\$0.73) from (\$0.88), (1.04) and (\$0.47), respectively.
- **Reiterate Overweight rating.**

## Overweight

**MACK, MACK US**

Price: \$7.41

**Price Target: \$10.00**

### US Biotechnology

**Geoff Meacham** <sup>AC</sup>

(1-212) 622-6531

geoffrey.e.meacham@jpmorgan.com

**Michael E Ulz**

(1-212) 622-0900

michael.e.ulz@jpmorgan.com

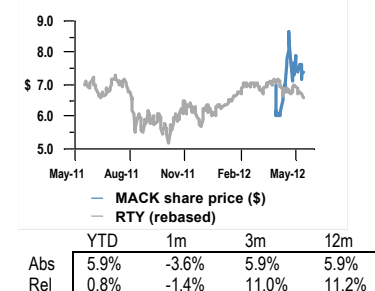
**Anupam Rama**

(1-212) 622-0105

anupam.rama@jpmorgan.com

J.P. Morgan Securities LLC

### 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)	-	-	(0.18)A	(2.14)A	-	-	-	-
Q2 (Jun)	-	-	(0.21)	(0.30)	-	-	-	-
Q3 (Sep)	-	-	(0.24)	(0.31)	-	-	-	-
Q4 (Dec)	-	-	(0.25)	(0.32)	-	-	-	-
FY	(5.57)	(7.67)	(0.88)	(3.07)	(1.04)	(1.41)	(0.47)	(0.73)

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

### Company Data

Price (\$)	7.41
Date Of Price	14 May 12
52-week Range (\$)	9.00 - 5.81
Mkt Cap (\$ mn)	695.70
Fiscal Year End	Dec
Shares O/S (mn)	94
Price Target (\$)	10.00
Price Target End Date	31 Dec 12

### See page 4 for analyst certification and important disclosures.

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## Changes to Our Model

Table 1: Change to Out Model

	2012E OLD	2012E NEW	2013E OLD	2013E NEW	2014E OLD	2014E NEW
Total Revenue	34.3	37.1	36.0	36.0	147.9	147.9
R&D	121.7	134.1	146.0	160.9	175.2	193.0
SG&A	17.4	17.1	20.0	19.7	25.0	24.6
Total Op Ex	139.1	151.2	166.1	180.6	211.2	228.6
Net income	(101.6)	(110.9)	(126.9)	(141.5)	(60.2)	(77.8)
<b>EPS</b>	<b>(0.88)</b>	<b>(3.07)</b>	<b>(1.04)</b>	<b>(1.41)</b>	<b>(0.47)</b>	<b>(0.73)</b>
<i>fully diluted shares</i>	<i>115.0</i>	<i>73.4</i>	<i>121.5</i>	<i>100.4</i>	<i>128.0</i>	<i>106.9</i>

Source: J.P. Morgan estimates.

## Investment Thesis

Merrimack's proprietary Network Biology Platform has the potential to significantly 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 2013-2014) 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 2012-2013.

## Valuation

Our \$10 December 2012 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 70% probability of success. This implies a value of \$5.5/share. For MM-121, we apply a 50% 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 \$2.5/share. For MM-111 we apply a 30% 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 \$1.5/share. Taken together, our sum-of-the-parts support our Dec 2012 target of \$10/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 3) inability to defend existing patent estate.

## Merrimack Pharmaceuticals: Summary of Financials

Income Statement - Annual	FY11A	FY12E	FY13E	FY14E	Income Statement - Quarterly	1Q12A	2Q12E	3Q12E	4Q12E
Revenues	34	37	36	148	Revenues	11A	9	9	9
Cost of products sold	101	134	161	193	Cost of products sold	32A	33	34	35
Gross profit	(66)	(97)	(125)	(45)	Gross profit	(20)A	(25)	(26)	(26)
SG&A	14	17	20	25	SG&A	4A	4	4	5
R&D	32	161	193	241	R&D	34A	35	134	-
Operating Income	(81)	(114)	(145)	(81)	Operating income	(24)A	(29)	(30)	(31)
Note: EBITDA	(81)	(114)	(145)	(81)	Note: EBITDA	(24)A	(29)	(30)	(31)
Net interest income / (expense)	0	3	3	3	Net interest income / (expense)	1A	1	1	1
Other income / (expense)	-	-	-	-	Other income / (expense)	-	-	-	-
Pretax income	(80)	(111)	(142)	(78)	Pretax income	(23)A	(28)	(29)	(30)
Income taxes	0	0	0	0	Income taxes	0A	0	0	0
Net income - GAAP	-	-	-	-	Net income - GAAP	-	-	-	-
Net income - recurring	-	-	-	-	Net income - recurring	-	-	-	-
Diluted shares outstanding	11	73	100	107	Diluted shares outstanding	12A	94	94	94
EPS - excluding non-recurring	(7.67)	(3.07)	(1.41)	(0.73)	EPS - excluding non-recurring	(2.14)A	(0.30)	(0.31)	(0.32)
EPS - recurring	0.00	0.00	0.00	0.00	EPS - recurring	0.00A	0.00	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	50	5	(14)	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	68	27	13	EBIT margin	-	-	-	-
PP&E	6	7	8	10	EBITDA margin	-	-	-	-
Total assets	85	88	48	36	Tax rate	-	-	-	-
Total debt	-	-	-	-	Net margin	-	-	-	-
Total liabilities	26	26	26	26	Debt / EBITDA	-	-	-	-
Shareholders' equity	(22)	(19)	(59)	(71)	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

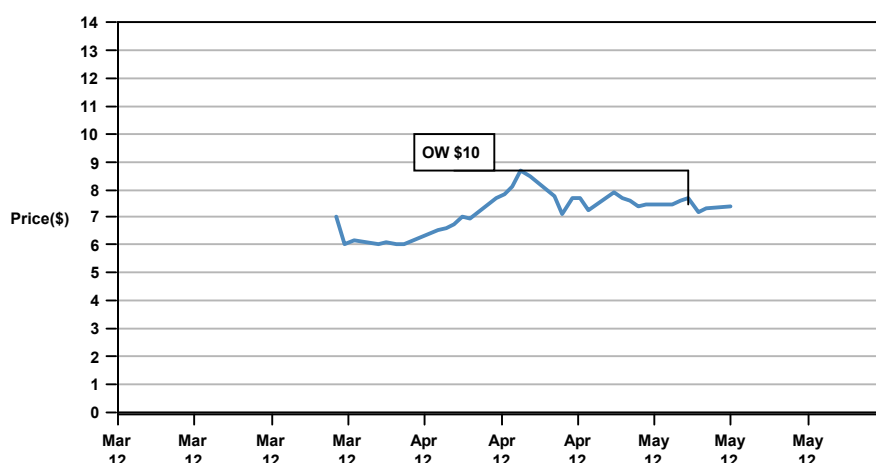
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Merrimack Pharmaceuticals (MACK, MACK US) Price Chart



Date	Rating	Share Price (\$)	Price Target (\$)
08-May-12	OW	7.50	10.00

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

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