AMAG Pharmaceuticals

Q1-2016 Financial Results

May 3, 2016

AMAG Pharmaceuticals, Inc.
1100 Winter Street
Waltham, MA 02451
617.498.3300

www.amagpharma.com

A SPECIALTY PHARMACEUTICAL COMPANY DEDICATED TO BRINGING TO MARKET THERAPIES THAT IMPROVE PATIENTS' LIVES

Forward-Looking Statements

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 and other federal securities laws. Any statements contained herein which do not describe historical facts, including among others, statements regarding the impact of investments in AMAG's next generation development programs on the future growth of Makena and Feraheme; expectations for AMAG's next generation development programs for Makena, including positive indicators on Makena growth after the commercial launch of the single-dose formulation of Makena; future growth drivers for Makena, including a new partnership with provider of home nursing services, share gains from compounders, formulary expansions, the impact of the increased size of the sales force and physician base, and patient support services and their effect on brand loyalty from physicians and patients; future growth drivers for CBR, including increased birth rates, market expansion opportunities, the impact of the increased size of the sales force and its effect on market share, and potential future medical applications in regenerative medicine; future growth drivers for Feraheme, including opportunities and plans to grow market share in the hospital and hematology/oncology segments, optimization of net revenue per gram, and the impact of potential approval of Feraheme, including timing of approval for the broad IDA indication; expectations for the Makena subcutaneous auto-injector, including its development and advantages, estimated filing timeline of the sNDA and FDA review period; plans and expectations, including the size, timing of data and potential commercial launch of the head-to-head Phase 3 clinical trial for the broad IDA indication for Feraheme and the potential increase in size of the addressable market for Feraheme; expected first quarter 2016 financial results and 2016 financial guidance, including revenues, adjusted EBITDA and net income; and AMAG's 2016 key priorities, including plans to achieve financial, commercial, product development and portfolio expansion objectives are forward-looking statements which involve risks and uncertainties that could cause actual results to differ materially from those discussed in such forward-looking statements. Such risks and uncertainties include, among others, those risks identified in AMAG's filings with the U.S. Securities and Exchange Commission (SEC), including its Annual Report on Form 10-K for the year ended December 31, 2015 and subsequent filings with the SEC. Any of the above risks and uncertainties could materially and adversely affect AMAG's results of operations, its profitability and its cash flows, which would, in turn, have a significant and adverse impact on AMAG's stock price. Use of the term "including" in this paragraph shall mean in each case "including, but not limited to." AMAG cautions you not to place undue reliance on any forward-looking statements, which speak only as of the date they are made.

Q1-2016 Earnings Call Agenda

1. Q1-2016 Highlights
2. Commercial Updates
3. Pipeline Updates
4. Q1-2016 Financial Update
5. 2016 Key Priorities and Closing Remarks
6. Q&A

Q1-2016 Highlights

Product Highlights

- Makena sales grew 17% percent over Q1-2015
- Received FDA approval of single-dose, preservative-free formulation of Makena
  - Commercial launch underway with positive early leading indicators
- Signed agreement with a leading provider of home nursing services to exclusively administer Makena
- Continued progress on development of subcutaneous auto-injector of Makena
- Reduced previous discounting strategy for CBR resulting in average enrollment price +10% vs. Q4-2015
- Feraheme achieved record high quarterly revenue and returned to double-digit growth rate

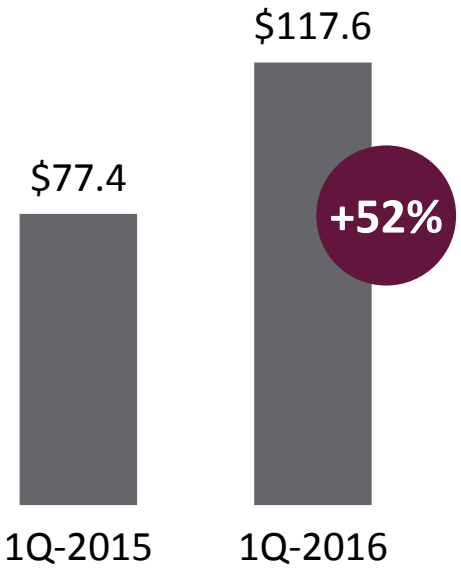
Financial and Corporate Highlights

- Non-GAAP total product revenue +52%[1] vs. Q1-2015 driven by Makena and acquisition of CBR
- Investment in next-generation programs supports future growth for Makena and Feraheme
- Strengthened executive team with new chief commercial officer and chief financial officer

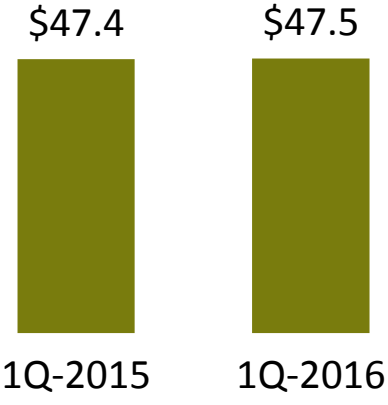
[1]See slides 24-25 for reconciliations of GAAP to non-GAAP financial information.

Q1-2016 Financial Highlights

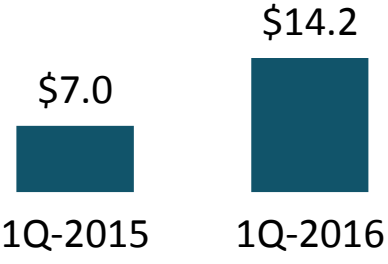
Non-GAAP Product Revenue[1]
($ MM)



Non-GAAP Adj. EBITDA[1]
($ MM)



R&D Expense
($ MM)



Balance Sheet

- $480 MM ending cash & investments balance; increased by $13.9 MM
  - $7.6 MM utilized to purchase 320,000 shares of common stock and $4.4 MM used for debt repayment
- Low net leverage ratio provides capacity for deals

[1]See slides 24-25 for reconciliations of GAAP to non-GAAP financial information.

amag PHARMACEUTICALS

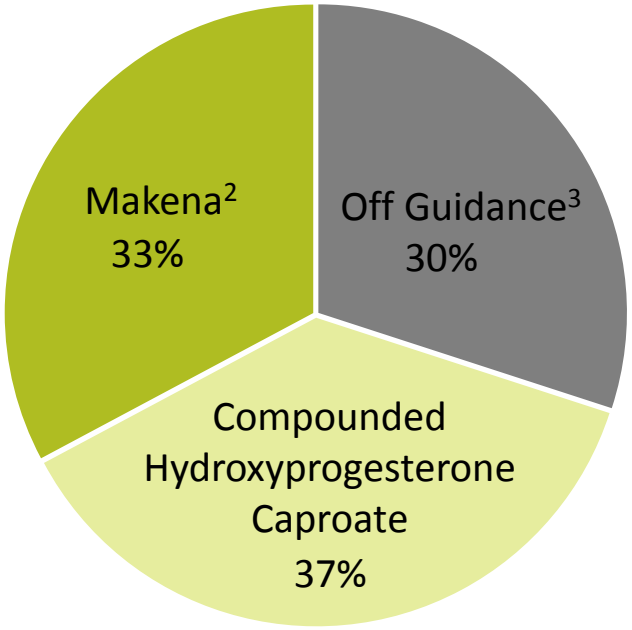
Commercial Update: Maternal Health

Positioned in Large Market, Growing Share

MAKENA SALES UP 17% OVER Q1-2015

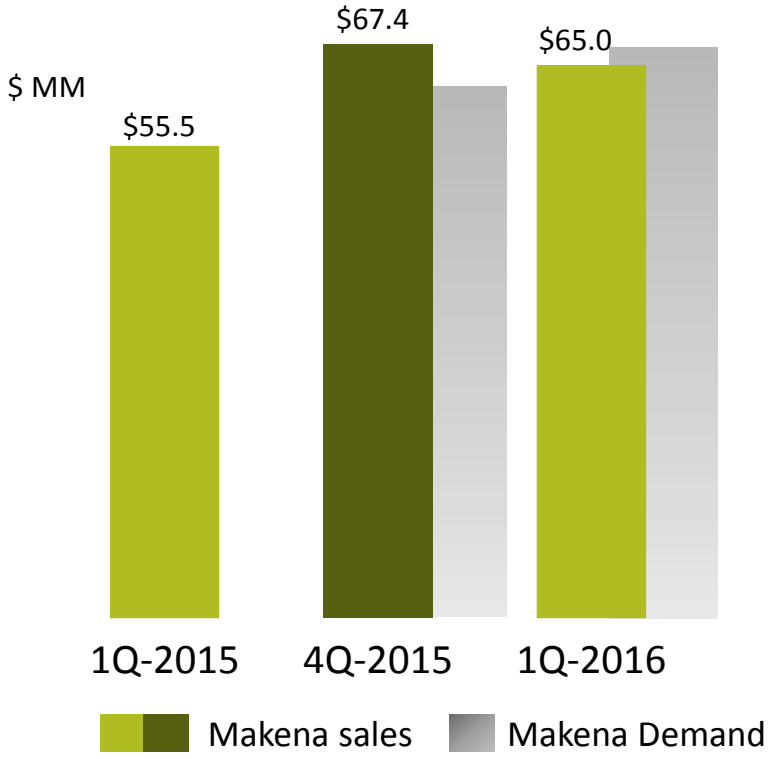
Q1-2016 Demand Market Share[1]

$1B Market Opportunity[2]



Makena Sales Growth (GAAP)

Increasing Underlying Demand[4]



[1] *Company estimates Makena market share based on distributor dispensing data and all other market share based on physician market research data conducted by AMAG.*
[2] *Based on 140,000 patients, >16 injections/patient and net revenue of ~$425/injection.*
[3] *Off-guidance represents patients treated outside guidance of Society for Maternal Fetal Medicine (SMFM), including patients treated with unapproved therapies and untreated patients.*
[4] *Based on distributor dispensing data from the company's distributor network; based on actual net revenue per injection.*

Single-Dose Makena Leading to New Growth

Single-dose Vial of Makena

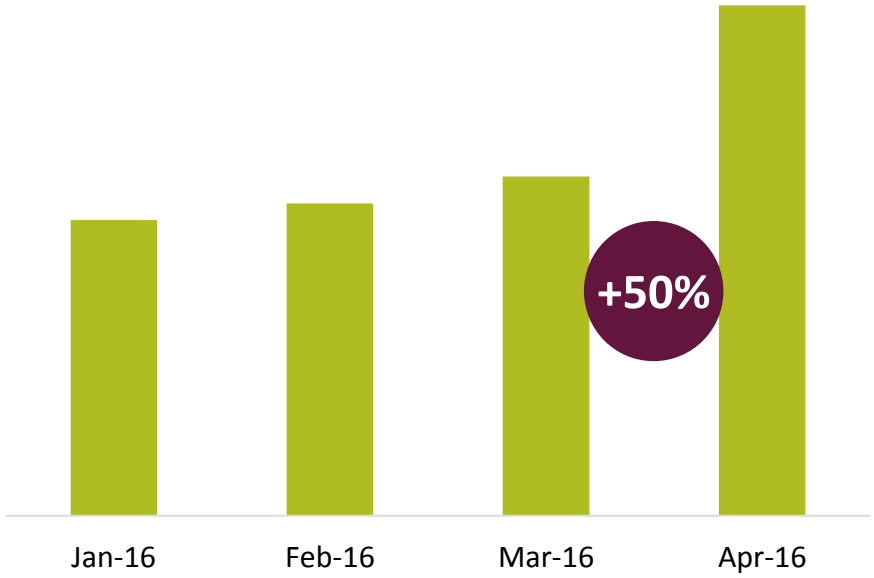
- Preservative free
- Convenient for healthcare providers
- 4-pack aligns with insurers' policies

FDA approval ☑

Commercial launch ☑

Early Launch Metrics

Makena Care Connection Referrals[1]



[1] *Makena Care Connection (MCC) enrollments reflect only a proportion (variable each quarter) of total Makena patients. Makena patients are typically enrolled in the MCC 2-4 weeks prior to initiation of therapy. Some patients who enroll with the MCC receive delayed reimbursement from their insurers and may be recipients of free starter vials, and other patients may have no insurance and would be eligible for therapy free of charge.*

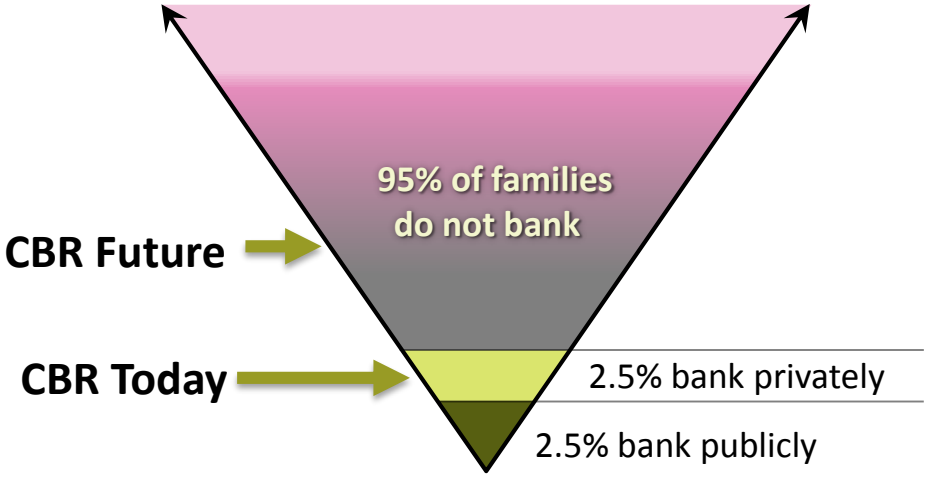
Growth Drivers in 2016 and Beyond

Growth Drivers

- **New partnership with a leading provider of home nursing services**
  - At-home administration by a healthcare professional
- **Continued share gains from compounders**
  - Preservative-free launch could expand compounder pharmacy conversion to become Makena distributor
- **Continue to pull through formulary expansions**
- **Maternal health sales force increased to 104 reps from 76 reps (+37%) in Q3-2015**
  - Target physician base doubled to 16,000 OB/GYNs
- **Enhance physician and patient brand loyalty with valued support services, such as Makena Care Connection and nurse-supported adherence program**

CBR: Market Leader, Long Growth Runway

Market for Stored Cord Blood



- Attractive business model
  - One-time upfront collection fee
  - Ongoing annual storage fee (high margin)
  - High loyalty; <1% annual attrition

CBR Non-GAAP Pro Forma Revenue[1]

($ MM)

Stored Units	596K	644K

[1]*See slides 24-25 for reconciliations of GAAP to non-GAAP financial information.*

Growth Drivers in 2016 and Beyond

Growth Drivers

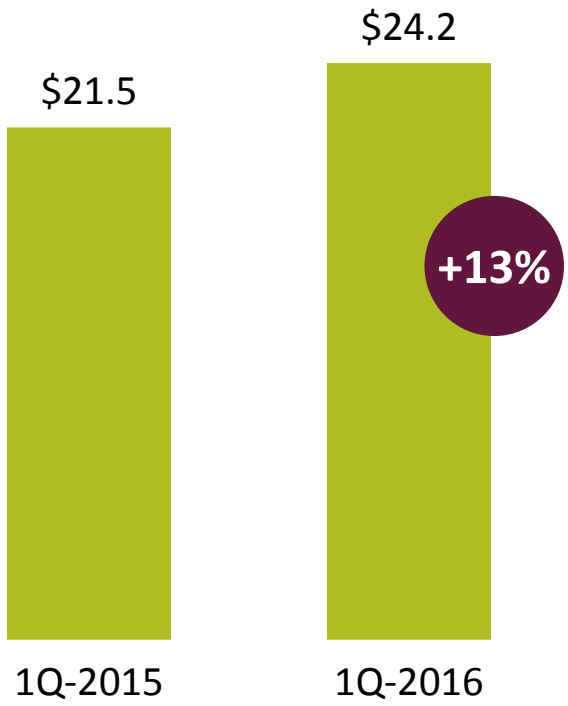
- Growing birth rate in the U.S.
- Market expansion opportunities
  - Only 5% of families store cord blood
  - Expand market offerings
  - Optimize revenue through strategic pricing
- Increase share
  - Expanded sales force from 47 to 104 reps in Q3-2015
  - Portfolio of products allows for broader relationships with target physicians
- Increased potential clinical use of stem cells, e.g. regenerative medicine

Commercial Update: Hematology/Oncology & Hospital

Record Breaking Quarterly Sales

STRONG COMMERCIAL TEAM & DIFFERENTIATED PRODUCT

Feraheme Sales Growth (GAAP)



- Growth from volume +7% and price +6%

- Patent protection through 2023[1]
  - 6 Orange Book listed patents
    - 5 expire in 2020
    - 1 expires in 2023
- Growing IV iron market[2]
- Growth opportunity today in current indication
  - ~$300MM / year Feraheme market potential[3]

[1] On February 5, 2016, AMAG received a Paragraph IV certification notice. On March 17, 2016, AMAG initiated a patent infringement suit against Sandoz. Please refer to Form 8-K filed with the SEC on February 8, 2016 for additional information.

[2] Feraheme is indicated for the treatment of IDA in adult patients with CKD, which comprises a portion of the total IV iron market.

[3] AMAG estimates market opportunity using ~$600/gram and 1.6 grams/patient/year.

Growth Drivers in 2016 and Beyond

Growth Drivers Next 2-3 Years

- Grow share in hospital segment
- Maximize opportunity in Hem/Onc segment
- Optimize net revenue per gram

Label expansion[1]

– All adult IDA patients who have failed or cannot tolerate oral iron treatment

Growth Beyond 2018

- Initiated Phase 3 trial Q1-2016 vs. Injectafer
  - ~2,000 patients
  - Potential approval 2018
- Doubles addressable market to $600 MM[2]

[1] *If regulatory approval is received for broad IDA indication.*
[2] *AMAG estimates market opportunity using ~$600/gram and 1.6 grams/patient/year.*

Pipeline Update

Next Generation Development Programs

Makena Subcutaneous Auto-injector

- Easier administration for physicians/nurses
- Potential for less painful injections
- Working with proven device partner, Antares, with issued patents to 2026
- Additional patent applications pending
- Eligible for orphan exclusivity on drug device combination
- sNDA estimated filing in Q2-2017
- FDA confirmed 6-month review timeline

Feraheme Phase 3 IDA Trial

- Seeking broad IDA indication
  - Doubles the addressable market for Feraheme
- Ph. 3 head-to-head trial evaluating the safety of Feraheme compared to Injectafer
  - Initiated trial Q1-2016
  - 2,000 patients
- Anticipate data in 2017 with commercial launch in 2018

Financial Update

Q1-2016 Financial Highlights

ADJUSTED EBITDA AND NON-GAAP EPS[1]

($ in millions, except per share data)	Q1-2016	Q1-2015
Makena product sales	$65.0	$55.5
Feraheme/ MuGard product sales	$24.5	$21.9
Non-GAAP CBR service revenues	$28.1	--
Total non-GAAP Product Revenues	**$117.6**	**$77.4**
Non-GAAP adjusted EBITDA	**$47.5**	**$47.4**
Cash interest expense, net	(14.6)	(7.4)
Non-GAAP net income	**$32.9**	**$40.0**
Non-GAAP net income per diluted share	**$0.94**	**$1.17**
Non-GAAP diluted shares[2]	35.1	34.1

[1]See slides 24-25 for reconciliation of adjusted EBITDA, non-GAAP net income, and non-GAAP EPS.
[2]See slide 27 for reconciliation of non-GAAP adjusted shares outstanding.

Q1-2016 Financial Results

GAAP TO NON-GAAP COMPARISON[1]

($ in millions, except per share data)	Q1-2016 (GAAP)	Adjustments	Q1-2016 (Non-GAAP)
Total revenues	**$109.3**	**$8.6**	**$117.9**
Cost of revenue	23.8	(14.9)	8.9
Gross margin	**$85.5**	**($23.5)**	**$109.0**
Operating expenses	78.0	(16.5)	61.5
Operating income / Adjusted EBITDA	**$7.5**	**($40.0)**	**$47.5**
Interest expense and other	(17.5)	2.9	(14.6)
Net income (loss) before taxes	**($10.0)**	**$42.9**	**$32.9**
Income tax expense (benefit)	(2.5)	2.5	0
Net income (loss)	**($7.5)**	**$40.4**	**$32.9**
Net income per diluted share	**($0.22)**	**--**	**$0.94**
Weighted average diluted shares[2]	**34.7**	**--**	**35.1**

[1] See slides 24-25 for a reconciliations of GAAP to non-GAAP financial information.
[2] See slide 27 for share reconciliation.

Confirming 2016 Financial Guidance

($ MM)	2016 Guidance[1]	% Increase over 2015 (midpoint of guidance)
Makena sales	$310 - $340	+29%
Feraheme and MuGard sales	$95 - $105	+11%
Cord Blood Registry revenue	$115 - $125[3]	+1%[2]
Total non-GAAP product revenue[1]	**$520 - $570**	**+42%**
Non-GAAP adjusted EBITDA[1]	**$255 - $285**	**+27%**
Non-GAAP net income[1]	**$195 - $225**	**+21%**

[1] *See slide 26 for a reconciliation of 2016 financial guidance.*
[2] *Pro forma growth rate assumes CBR was acquired at the beginning of 2015.*
[3] *Revenue includes purchase accounting adjustments related to CBR deferred revenue of $17 MM in 2016. See slide 29 for an explanation of CBR deferred revenue adjustments. CBR was acquired on August 17, 2015.*

2016 Key Priorities

Executing on 2016 Key Priorities

Financial and Commercial

- ☐ Drive significant net product sales growth +40% versus prior year
- ☑ Commercialize single-dose, preservative-free formulation of Makena
- ☐ Non-GAAP adjusted EBITDA of >$255 MM
- ☑ Initiate share repurchase program

Product Development

- ☐ Conduct Makena bioequivalence study in preparation for sNDA filing
- ☑ Initiate Feraheme IDA study
- ☐ Complete Velo preclinical work and initiate clinical program for severe preeclampsia option

Portfolio Expansion

- ☐ Acquire marketed or late-stage development assets to accelerate future growth

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GAAP to Non-GAAP Financials for the Quarters Ended March 31, 2016 and 2015

	Three Months Ended March 31, 2016			Three Months Ended March 31, 2015		
	GAAP	Adjustments	Non-GAAP	GAAP	Adjustments	Non-GAAP
Revenues:						
Makena	$ 65,032	$ —	$ 65,032	$ 55,529	$ —	$ 55,529
Feraheme/MuGard	24,532	—	24,532	21,886	—	21,886
Cord Blood Registry	19,520	8,561 [4]	28,081	—	—	—
License fee, collaboration and other	216	—	216	12,090	(6,402) [5]	5,688
Total revenues	109,300	8,561	117,861	89,505	(6,402)	83,103
Operating costs and expenses:						
Cost of product sales	18,300	(14,609) [6]	3,691	21,026	(17,740) [6]	3,286
Cost of services	5,526	(360) [7]	5,166	—	—	—
Research and development	14,229	(774) [8]	13,455	6,988	(493) [8]	6,495
Selling, general and administrative	63,175	(15,120) [9]	48,055	32,112	(6,186) [9]	25,926
Restructuring	622	(622) [10]	—	571	(571) [10]	—
Total costs and expenses	101,852	(31,485)	70,367	60,697	(24,990)	35,707
Operating income (loss) / adjusted EBITDA	7,448	40,046	47,494	28,808	18,588	47,396
Other income (expense):						
Interest expense	(18,443)	2,945 [11]	(15,498)	(10,367)	2,885 [11]	(7,482)
Interest and dividend income, net	708	—	708	71	—	71
Other income, net	220	—	220	—	—	—
Total other income (expense)	(17,515)	2,945	(14,570)	(10,296)	2,885	(7,411)
Net income (loss) before income taxes	(10,067)	42,991	32,924	18,512	21,473	39,985
Income tax expense (benefit)	(2,540)	2,540 [12]	—	5,608	(5,608) [12]	—
Net income (loss)	$ (7,527)	$ 40,451	$ 32,924	$ 12,904	$ 27,081	$ 39,985
Net income (loss) per share						
Basic	$ (0.22)	—	$ 0.95	$ 0.47	—	$ 1.47
Diluted	$ (0.22)	—	$ 0.94	$ 0.39	—	$ 1.17
Weighted average shares outstanding						
Basic	34,739	—	34,739	27,213	—	27,213
Diluted	34,739	—	35,123	38,245	—	34,058

GAAP to non-GAAP Financials for the First Quarter Ended March 31, 2016 (cont.)

FOOTNOTES

[4] Adding back period write-down of deferred revenue from purchase accounting.

[5] Eliminate non-cash revenue related to recognition of previously deferred revenue on Takeda agreement.

[6] Eliminate the following: (i) non-cash step-up of inventory from purchase accounting; (ii) amortization expense related to intangible assets; (iii) depreciation expense; and (iv) stock-based compensation expense.

[7] Eliminate depreciation expense.

[8] Eliminate the following: (i) non-cash step-up of inventory used in research and development from purchase accounting; (ii) depreciation expense; and (iii) stock-based compensation expense.

[9] Eliminate the following: (i) non-cash adjustments related to contingent consideration; (ii) amortization expense related to intangible assets; (iii) depreciation expense; and (iv) stock-based compensation expense.

[10] Eliminate non-recurring restructuring costs.

[11] Eliminate non-cash interest expense.

[12] Eliminate non-cash income tax.

2016 Financial Guidance Reconciliation

($ MM)	2016 GUIDANCE
GAAP net income	**$11 - $41**
CBR deferred revenue purchase accounting adjustments	$17
Depreciation & amortization	$90
Interest expense, net	$72
Provision for income taxes	$20
EBITDA	**$210 - $240**
Non-cash inventory step-up	$5
Stock-based compensation	$27
Adjustment to contingent consideration	$12
Restructuring costs	$1
Non-GAAP adjusted EBITDA	**$255 - $285**
Cash interest expense	$(60)
Non-GAAP net income	**$195 - $225**

Share Reconciliation

(in millions)	Q1-2016	Q1-2015
Weighted average basic shares outstanding	**34.7**	27.2
Employee equity incentive awards	--[1]	1.5
Convertible notes	--[1]	7.4
Warrants	--[1]	2.1
GAAP diluted shares outstanding	**34.7**	**38.2**
Employee equity incentive awards	0.4	--[2]
Effect of bond hedge and warrants[3]	--	(4.1)
Non-GAAP diluted shares outstanding	**35.1**	**34.1**

[1] Employee equity incentive awards, Convertible notes and Warrants would be anti-dilutive in this period utilizing the "if-converted" method, which adjusts net income for the after-tax interest expense applicable to the convertible notes.

[2] Reflects the Non-GAAP dilutive impact of the employee equity incentive awards.

[3] Reflects the impact of the non-GAAP benefit of the bond hedge and warrants.

Capitalization

AS OF MARCH 31, 2016

($ MM)	
Cash, cash equivalents and investments	$480
Convertible senior notes (2.5%)	$200
Term loan facility (4.75%)	341
2023 senior notes (7.875%)	500
Total debt (principal amount outstanding)	$1,041

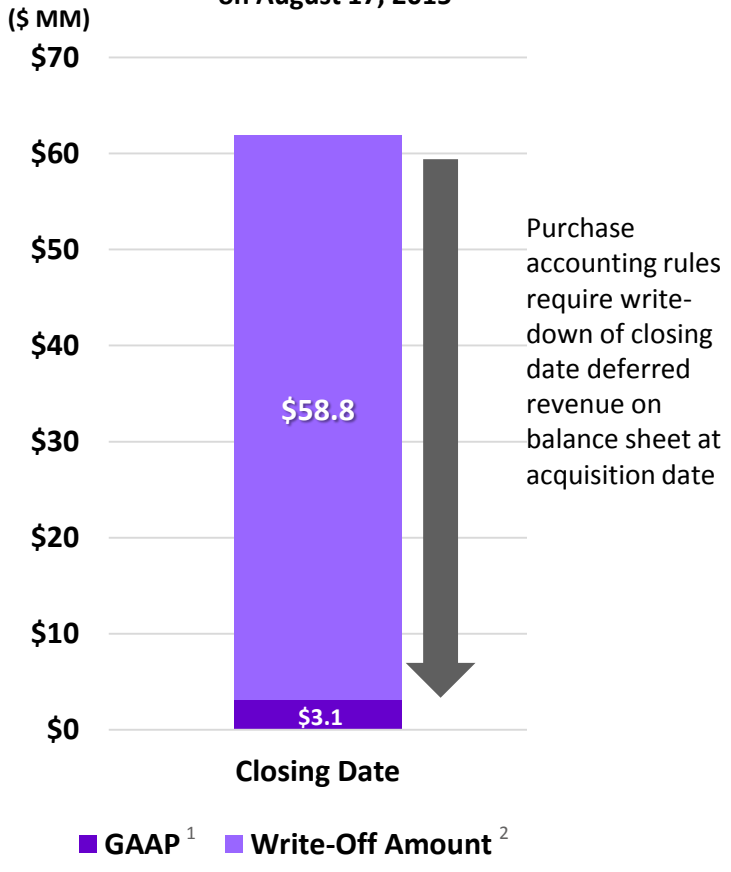
($ MM)	
Shares outstanding (millions)	34.6
Net operating loss balance as of 12/31/15[1]	$503

[1] *A portion of this Federal NOL balance is subject to annual 382 limitations.*

CBR Non-GAAP Revenue Adjustment

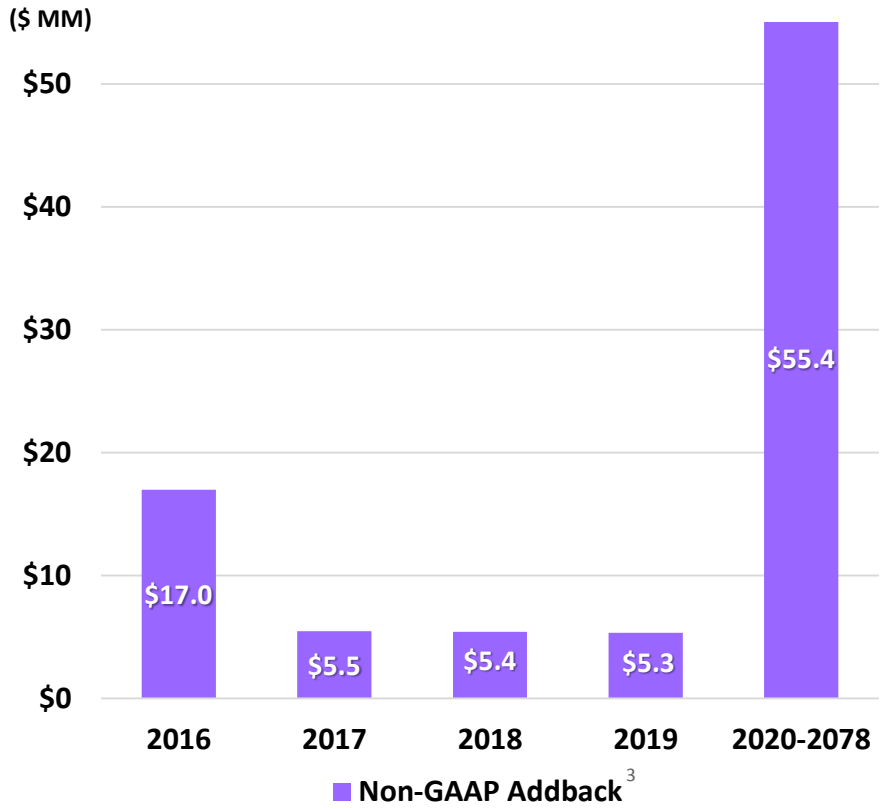
PURCHASE ACCOUNTING FUTURE IMPACT

Deferred revenue balance
on August 17, 2015



Purchase accounting rules require write-down of closing date deferred revenue on balance sheet at acquisition date

Addback to calculate non-GAAP revenue to be reported in future periods



[1] Reflects the GAAP balance sheet adjustment following the 2015 acquisition of CBR by AMAG; prior adjustment due to 2012 acquisition of CBR by GTCR.
[2] Write-Off amount is added back in the period it would have been recognized in to arrive at non-GAAP revenue.
[3] Reflects the addbacks from both the 2015 acquisition of CBR by AMAG and the 2012 acquisition of CBR by GTCR.

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