AMAG Pharmaceuticals

Q2-2017 Financial Results & Corporate Update

August 3, 2017

Forward-Looking Statements

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 (PSLRA) and other federal securities laws. Any statements contained herein which do not describe historical facts, including, among others, expectations regarding the commercial opportunity and revenue potential of Intrarosa, including the number of women who suffer from dyspareunia in the U.S.; AMAG's beliefs that its approach to the Intrarosa launch is well-planned and will result in a successful launch and the quick capture of market share; AMAG's unrestricted coverage goal of 65% by year end; beliefs that AMAG's commercial copay savings program will maximize the Intrarosa launch uptake; Intrarosa launch priorities, including affordable access for patients and increased market awareness and physician prescribing; beliefs regarding the Makena market opportunity and Makena's position in the market; future growth drivers for Makena, including its ability to continue to gain share from compounders, grow the Makena @Home administration, expand use in the late preterm birth segment, prepare to launch the Makena subcutaneous auto-injector and prepare for potential competitive threat; growth drivers for Cord Blood Registry (CBR), including plans to differentiate CBR's offerings, build value proposition on storing newborn stem cells and leverage advancements in stem cell research; growth drivers for Feraheme, including continued growth in key segments, complete recent group purchasing organization (GPO) sales, optimize net revenue per gram, and expectations that the size of the addressable market, if the broader indication is approved, would double and would require minimal sales force expansion; AMAG's 2017 financial guidance, including forecasted GAAP and non-GAAP revenues, GAAP net income and operating income, and non-GAAP adjusted EBITDA; and expectations regarding regulatory timelines for the Makena subcutaneous auto-injector, Feraheme broader label, Intrarosa, bremelanotide and Velo, including anticipated FDA action and commercial launch for each product, as applicable; AMAG's key priorities for the second half of 2017 related to its products and product candidates, portfolio expansion and financial goals; 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 Securities and Exchange Commission ("SEC") filings, including its Annual Report on Form 10-K for the year ended December 31, 2016 and its Quarterly Report on Form 10-Q for the quarter ended March 31, 2017 and subsequent filings with the SEC. AMAG cautions you not to place undue reliance on any forward-looking statements, which speak only as of the date they are made. AMAG disclaims any obligation to publicly update or revise any such statements to reflect any change in expectations or in events, conditions or circumstances on which any such statements may be based, or that may affect the likelihood that actual results will differ from those set forth in the forward-looking statements.

Q2-2017 Earnings Call Agenda

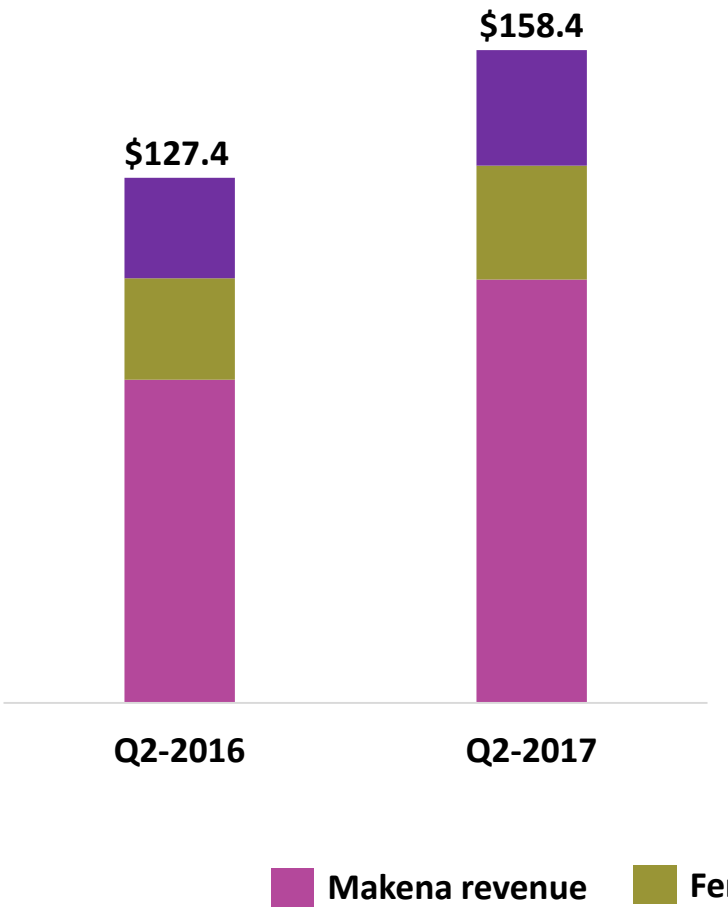
1	Q2-2017 Highlights and Recent Events
2	Product Portfolio Commercial Overview
3	Financial Update and Guidance
4	2017 Key Priorities and Closing Remarks
5	Q&A

Q2-2017 Highlights and Recent Events

Bill Heiden
President & CEO

Q2-2017 Financial Highlights

GAAP Total Net Revenues ($M)



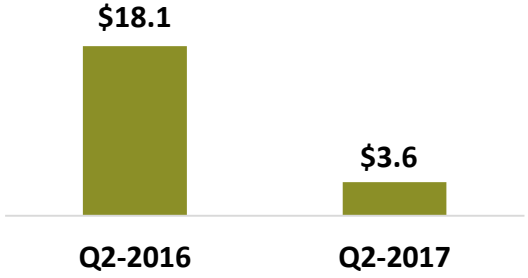
24% increase driven by strong growth across product portfolio

Q2-2017 Financial Highlights

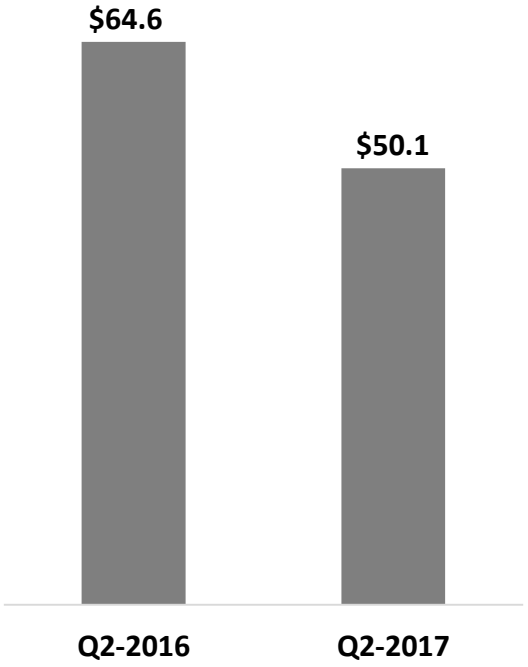
Investing in new product launch and development while maintaining strong cash flows

Ended Q2-2017 with ~$400M in cash and investments

GAAP Operating Income
($M)



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



[1] See slide 37 for reconciliation of GAAP to non-GAAP financial results.

Strong Execution in Q2-2017

Highlights and Recent Events

- ✓ Closed Endoceutics licensing transaction, hired and trained new sales team, and launched Intrarosa
- ✓ Drove record quarterly Makena sales to over $102M and received FDA acceptance for review of Makena subcutaneous (sub-q) auto-injector sNDA
- ✓ Achieved record quarterly Feraheme sales and completed submission to FDA to broaden Feraheme label
- ✓ Generated strong new family enrollments at Cord Blood Registry
- ✓ Advanced bremelanotide development and regulatory activities to support the planned NDA submission in early 2018
- ✓ Strengthened balance sheet and ended Q2-2017 with ~$400M of cash and investments

AMAG's Expanding Portfolio of Products

Hematology / Oncology

Feraheme

- Treatment of iron deficiency anemia (IDA) in adult patients with chronic kidney disease (CKD)

MuGard

- Management of oral mucositis, a common side effect of radiation or chemotherapy

Maternal and Women's Health

Pregnancy & Birth

Makena

- The only FDA-approved therapy to reduce recurrent preterm birth in certain at-risk women

Cord Blood Registry

- World's largest umbilical cord stem cell collection and storage company

Velo Option

- Candidate for the treatment of severe preeclampsia

Wellness

Bremelanotide

- An investigational product for the on-demand treatment of hypoactive sexual desire disorder (HSDD)

Post-Menopausal Health

Intrarosa

- FDA-approved non-estrogen product to treat moderate-to-severe dyspareunia (pain during sex), a common symptom of VVA, due to menopause, which does not carry a boxed warning in its label

Product Portfolio Commercial Overview

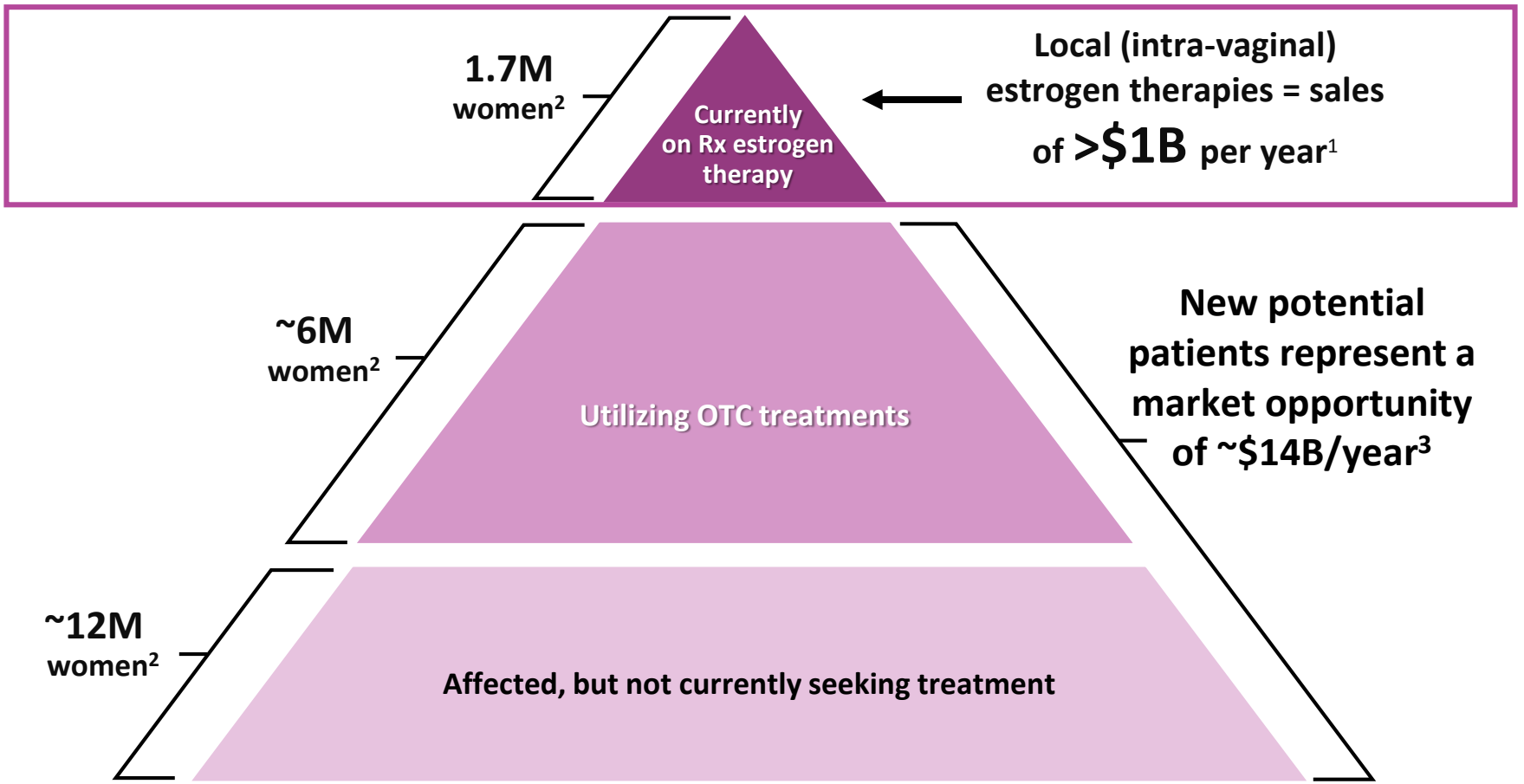
Nik Grund
Chief Commercial Officer

Launched July 24, 2017

Intrarosa™
Prasterone VAGINAL INSERTS

Dyspareunia: Sizable Untapped Treatment Market

~20M women in U.S. suffer from dyspareunia, a symptom of VVA



[1] Based on IMS SMART Tool NSP and NPA data for total VVA prescriptions. See slide 8 for Intrarosa's indication.

[2] AMAG estimates based on:

a) Wysocki et al. Management of Vaginal Atrophy: Implications from the REVIVE Survey. Clinical Medicine Insights: Reproductive Health 2014:8 23–30;

b) Kingsberg et al. Vulvar and Vaginal Atrophy in Postmenopausal Women: Findings from the REVIVE Survey. J Sex Med 2013;101790-1799; and

c) F. Palma et al: Vaginal atrophy of women in postmenopause. Results from a multicentric observational study: The AGATA study.

[3] Company estimated based on IMS SMART Tool NSP and NPA data.

Well-Planned Phased Approach for Commercial Launch

Launch Day 1 – Now Available

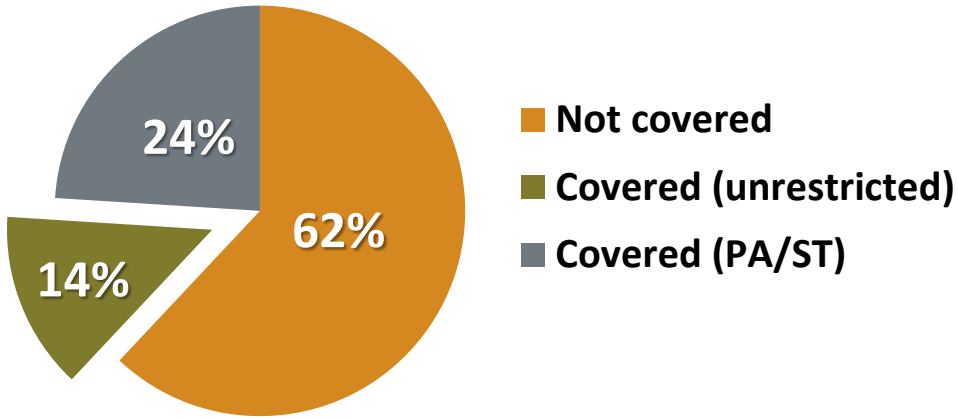
- Inventory broadly available in wholesaler distribution network
- Product available at more than 5,000 retail pharmacies
- Samples being distributed to HCP offices to facilitate new patient starts
- Commercial insurance coverage and copay savings program in place

Commercial Lives Covered for Intrarosa

Today

- Approximately 2/3 of prescriptions for VVA are commercial pay[1]
  - Top 18 accounts represent >85% of covered lives[2]
- Unrestricted coverage 14% and growing

Commercial Lives Covered[3]



Tomorrow

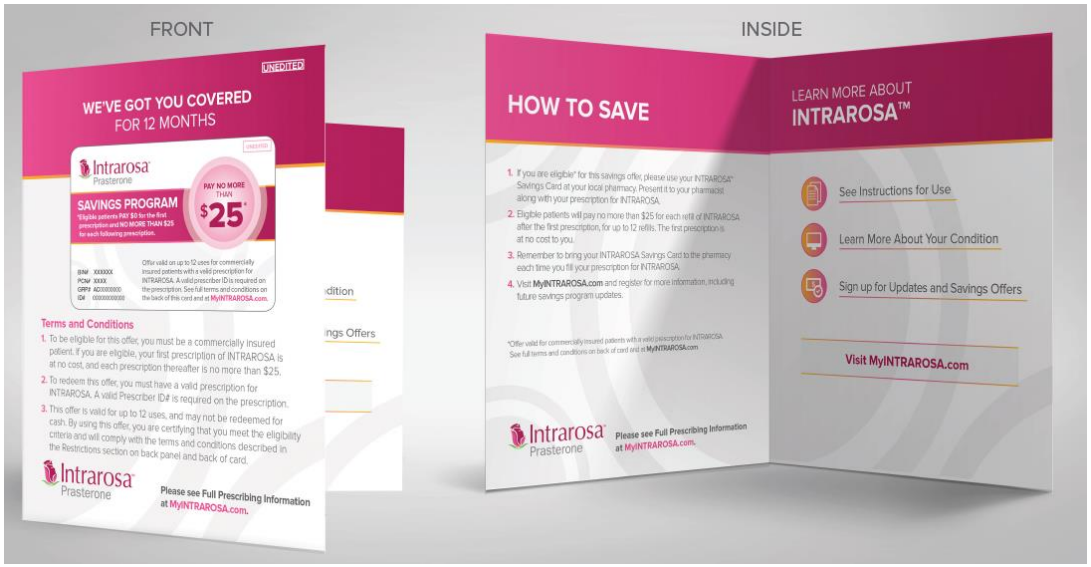
- Year end 2017 goal 65% unrestricted coverage
- Working with Medicare on potential reimbursement

[1] IMS FIA data, last 24 months, July 2017.
[2] Market research sponsored by AMAG and conducted Insight Strategy Advisors.
[3] MMIT data as of 7/24/17.

Commercial Copay Savings Program in Place

Remove Cost as a Barrier in Order to Maximize Launch Uptake

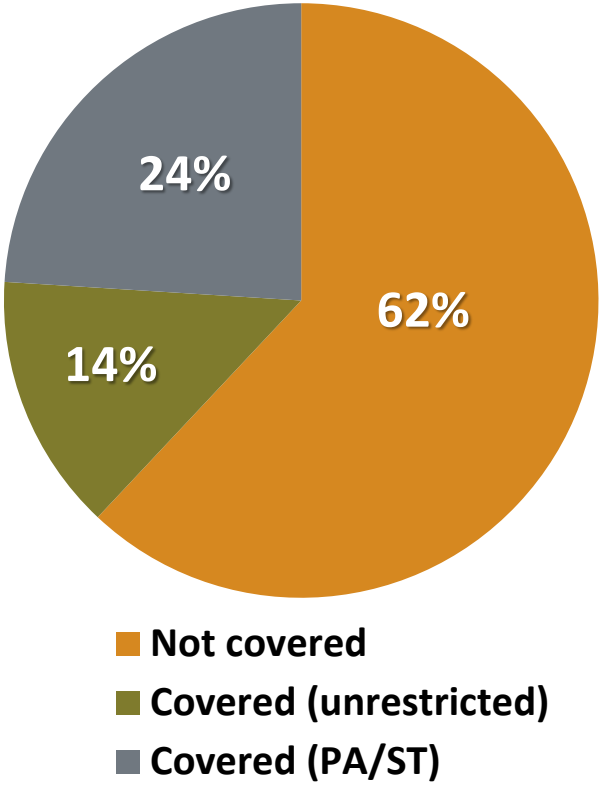
- Comprehensive commercial copay savings program
  - $0 copay first month on therapy (regardless of formulary access)
  - Refill copays are no greater than $25 (regardless of formulary access)
  - No activation of card required
  - Distributed to HCPs via sales force (printed cards) and downloadable via Intrarosa.com



AMAG Well Positioned for a Successful Launch

Commercial Lives Covered[1]

Today: 14% covered (unrestricted)
Y/E 2017 goal: 65% covered (unrestricted)



Launch Priorities to Watch

1 Create affordable access for patients
- Increase percentage of covered lives

2 Increase market awareness
- # of first time prescribers

3 Increase physician prescribing
- Market share
- # of HCPs prescribing
- NRx and TRx (growth)

[1] MMIT Data as of 7/24/17.

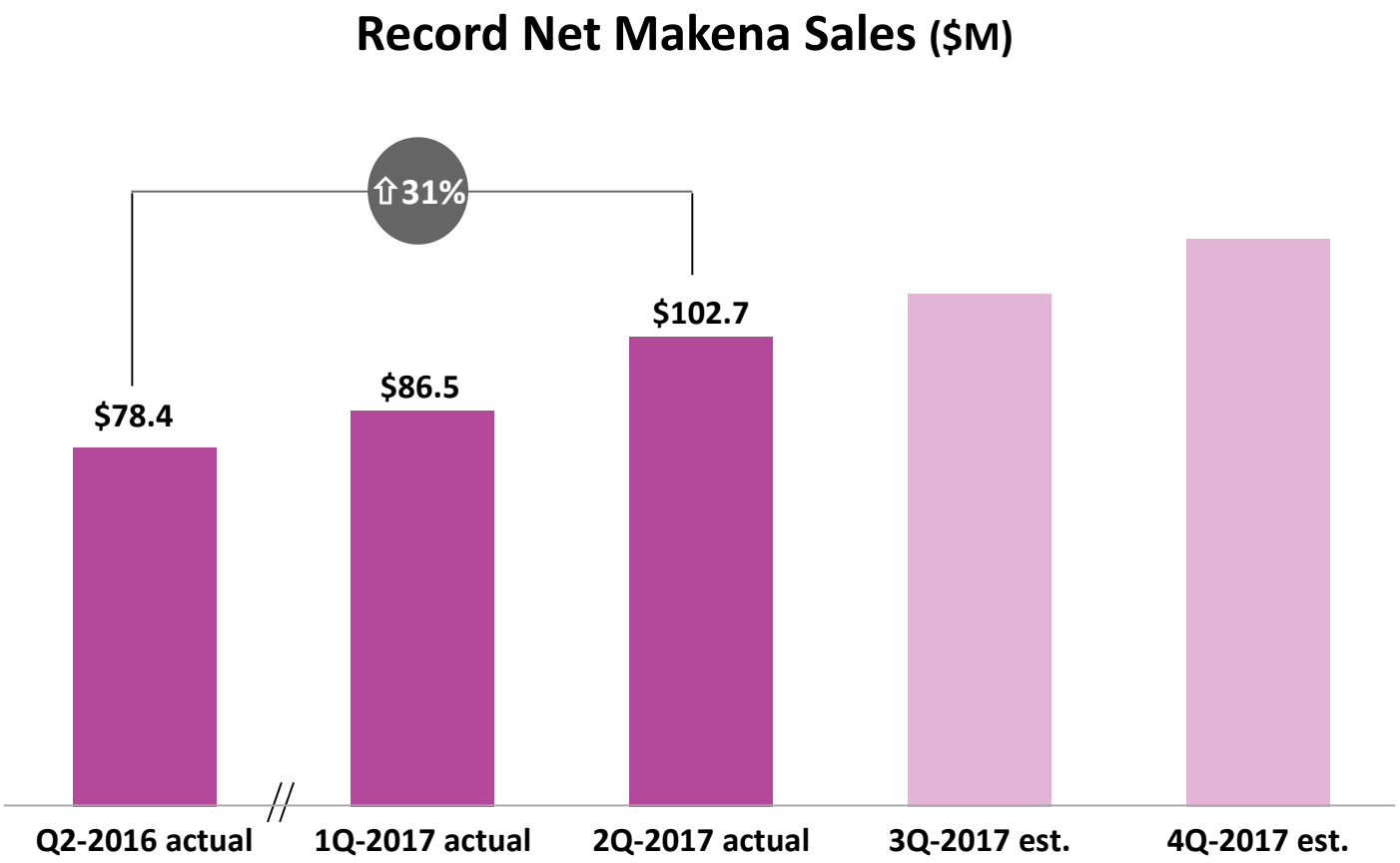
In Summary

- Differentiated mechanism of action
- Only FDA-approved non-estrogen local product[1] for moderate-to-severe dyspareunia due to menopause
  - Only product without a boxed warning
- Well-planned launch strategy to quickly capture market share
- Significant market opportunity with sizeable revenue potential

[1] Locally converted to estrogens and androgens.

Proven Commercial Execution Capabilities

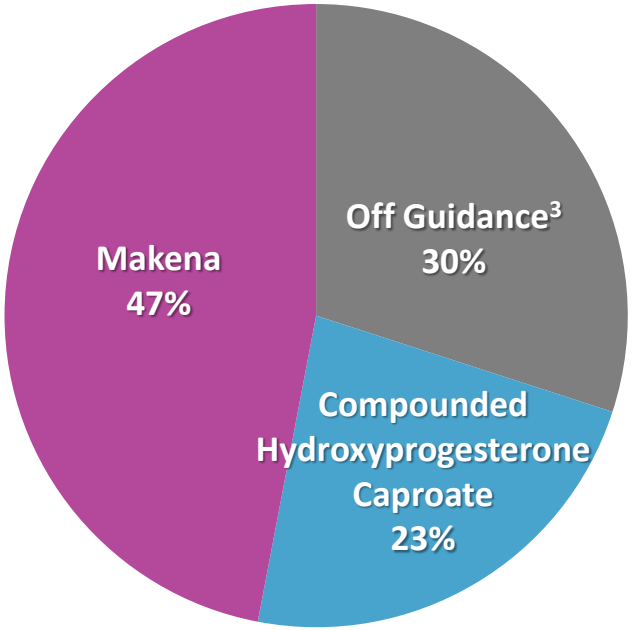
On track to achieve 2017 Makena revenue guidance of $410M - $440M



Makena: Continued Growth

Estimated Makena market share[1] up 3 percentage points over Q1-2017

At June 30, 2017



$1B Market Opportunity[2]

2017 Makena Growth Drivers

1. **Continue share gains from compounders and grow Makena @Home administration**
2. **Expand use in late preterm birth segment**
3. **Prepare for Q1-2018 launch of sub-q auto-injector[4]**
4. **Prepare for potential competitive threat in 2018**

[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] AMAG estimates market opportunity based on 140,000 patients, >16 injections/patient and net revenue of ~$425-$450/injection.

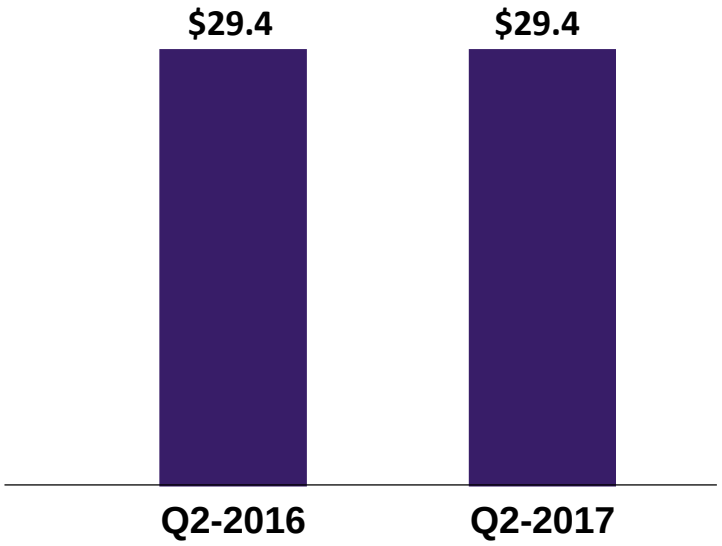
[3] Off guidance represents patients treated outside guidance of Society for Maternal Fetal Medicine, including patients treated with unapproved therapies and untreated patients.

[4] If regulatory approval is received.

CBR: Attractive Recurring Revenue Stream

GAAP CBR Revenue ($M)

Non-GAAP CBR Revenue[1] ($M)



[1] Non-GAAP CBR revenue includes purchase accounting adjustments related to CBR deferred revenue of $5.1M and $1.4M for Q2-2016 and Q2-2017, respectively.

CBR 2017 Growth Drivers

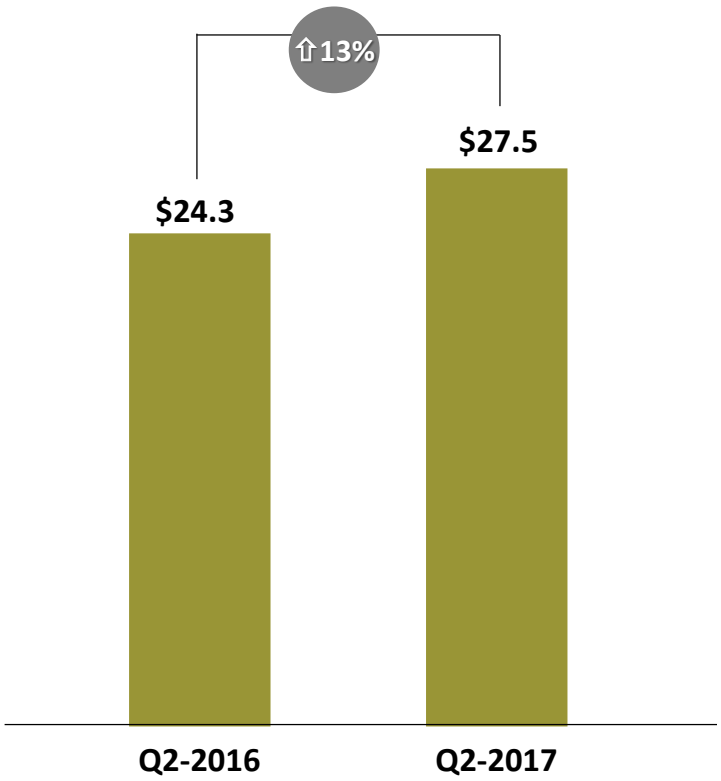
1 **Differentiate CBR's offerings**
- Increase/stabilize first time enrollments

2 **Build value proposition on storing newborn stem cells**
- Harmonizing annual storage price
- Stabilized new enrollment pricing

3 **Leverage advancements in stem cell research with OB/GYN's and pregnant families**

Solid Financial Performance; Expected Future Growth

Feraheme Revenue[1] ($M)



2017 Growth Drivers

- Continued growth in key segments
- Pull through recent GPO access wins
- Optimize net revenue per gram
- Prepare for expanded label to include all IDA patients[2]
  - Completed submission to FDA with approval and launch anticipated in 1H-2018
  - Would double addressable market, if approved[3]
  - Minimal expansion required from current commercial footprint

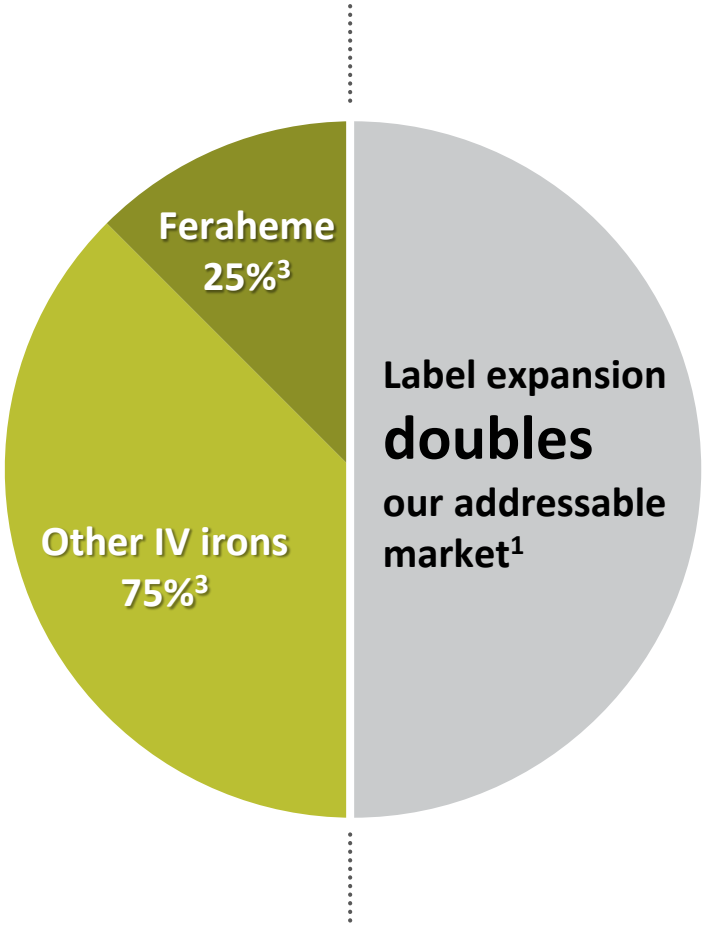
[1] Represents Feraheme revenues only. Excludes MuGard revenues as reported on financial statements.
[2] If regulatory approval is received.
[3] AMAG estimates market opportunity using ~$600/gram and 1.3M grams (Q2-2017 IMS data annualized).

Large IV Iron Market Opportunity of $780M[1,2]

Current Addressable Market:

$390M[3]

– Iron deficiency anemia caused by chronic kidney disease



Additional Addressable Market:

$390M

– Iron deficiency anemia caused by other diseases

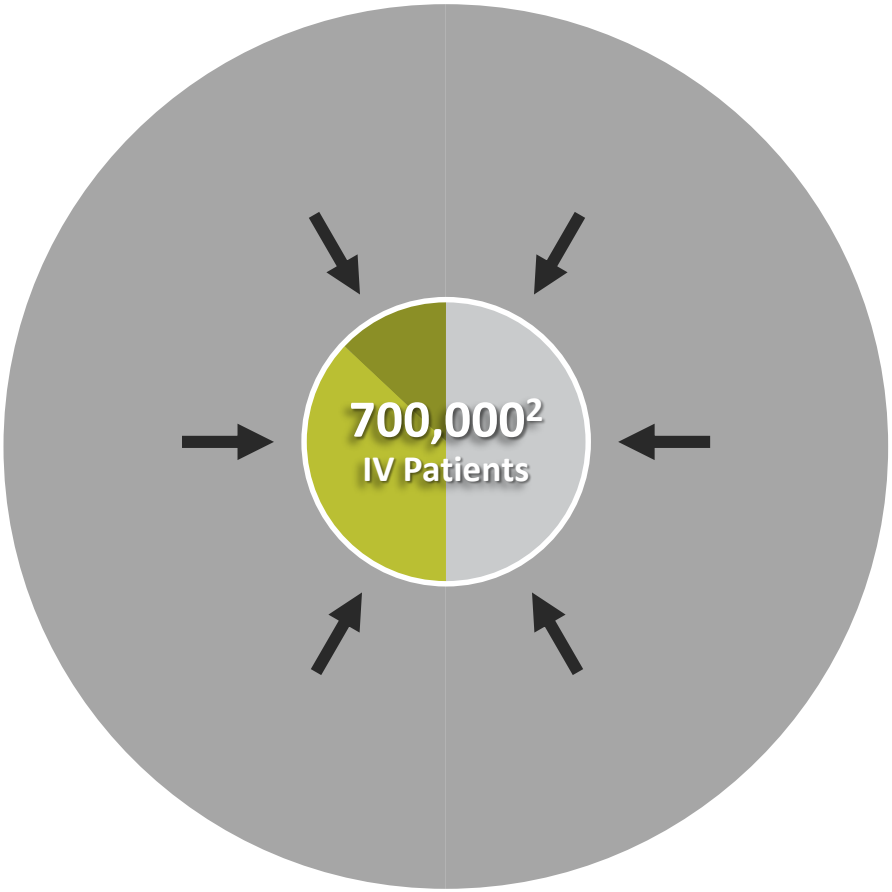
[1] If regulatory approval is received for broad IDA indication.
[2] AMAG estimates market opportunity using ~$600/gram and 1.3M grams (Q2-2017 IMS data annualized).
[3] AMAG estimates current market using IMS data and internal analytics.

IV Iron Market Represents Small Subset of Patients Who Suffer from IDA

4.5M Total U.S. Patients Diagnosed with Iron Deficiency Anemia[1]

IDA-CKD Patients

- Majority under the care of current AMAG call points; hematology / oncology & hospital infusion centers



Diagnosed IDA Patients

- Under the care of other physician specialists, including **1.5M in women's health**

Opportunity to convert from oral to IV treatments

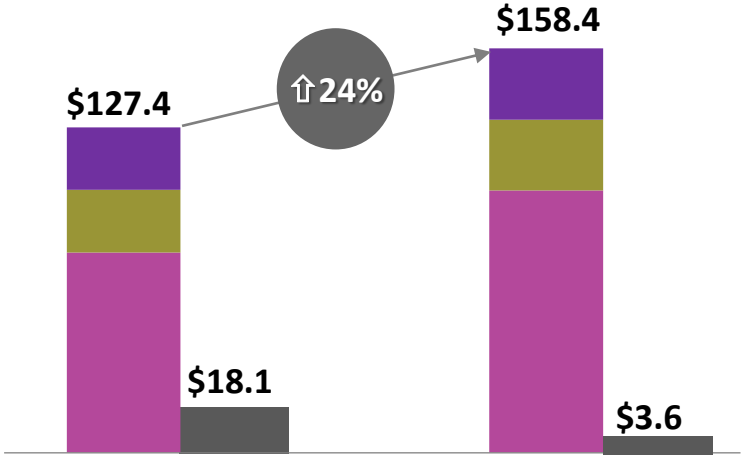
[1] Global Intravenous (I.V.) Iron Drugs Market Report: 2015 Edition.
[2] AMAG estimates number of IV patients using 1.3M grams (Q2-2017 IMS data annualized) and an estimated average dose per course of therapy.

Financial Update and Guidance

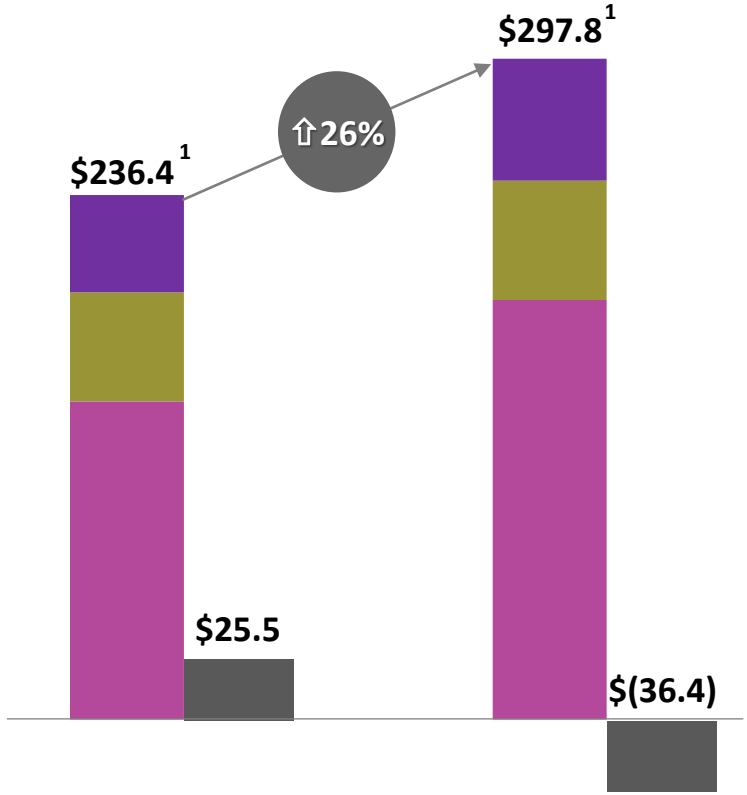
Ted Myles
Chief Financial Officer

Continued Revenue Growth and Portfolio Investments

GAAP Financials for the 3-months Ended June 30 ($M)



GAAP Financials for the 6-months Ended June 30 ($M)

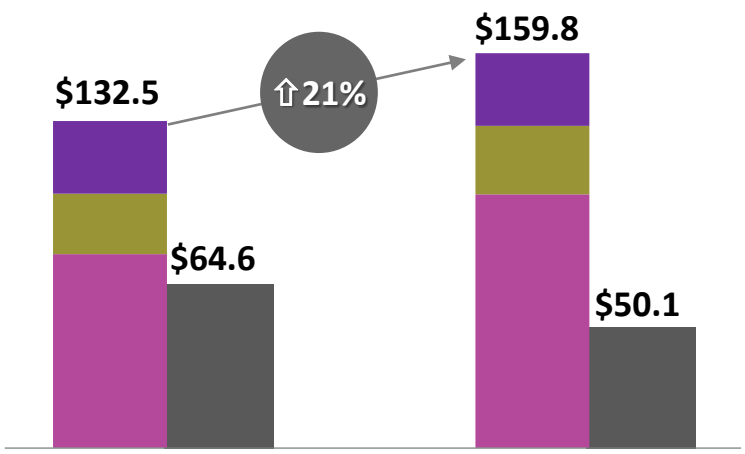


Makena revenue | Feraheme/MuGard revenue | CBR revenue | GAAP Operating income (loss)

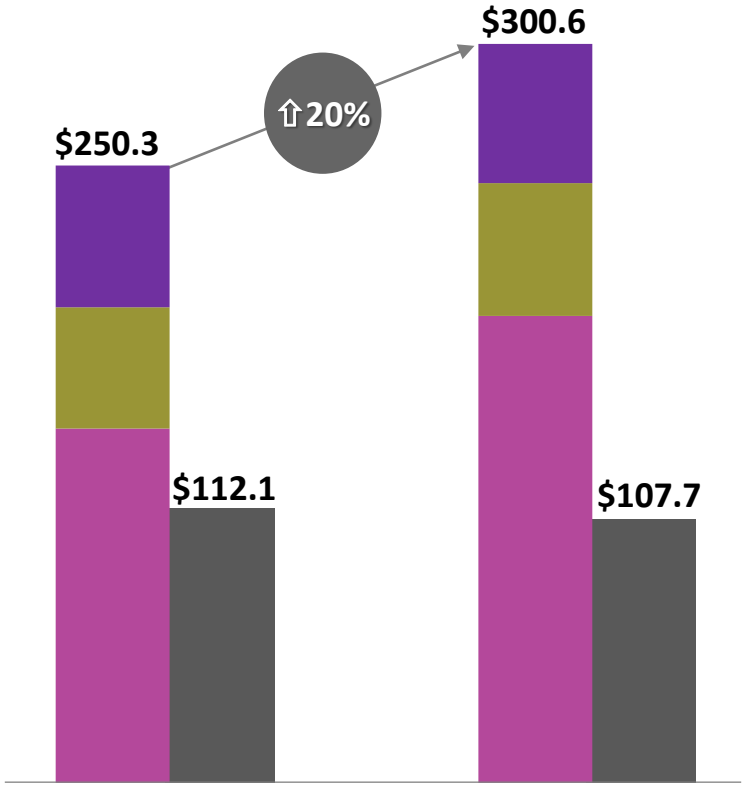
[1] Excludes $273,000 and $53,000 of "License fee, collaboration and other revenues" in 1H-2016 and 1H-2017, respectively.

Continued Revenue Growth and Portfolio Investments

Non-GAAP Financials for the 3-months Ended June 30 [1]
($M)



Non-GAAP Financials for the 6-months Ended June 30 [1]
($M)



Makena revenue | Feraheme/MuGard revenue | CBR revenue | Non-GAAP adjusted EBITDA

[1] See slide 37 for a reconciliation of GAAP to non-GAAP financial results.

Affirming 2017 Financial Guidance

($M)	2017 GAAP Guidance	2017 Non-GAAP Guidance[1]
Makena sales	$410 - $440	$410 - $440
Feraheme/MuGard sales	$100 - $110	$100 - $110
CBR revenue	$110 - $120	$115 - $125[2]
Intrarosa	$5 - $15	$5 - $15
Total revenue	**$625 - $685**	**$630 - $690**
Net income (loss)	($62) - ($31)[1]	N/A
Operating income (loss)	($23) - $27[1]	N/A
Adjusted EBITDA	N/A	$210 - $260

[1] See slide 38 for a reconciliation of 2017 financial guidance.
[2] Revenue includes purchase accounting adjustments related to CBR deferred revenue.

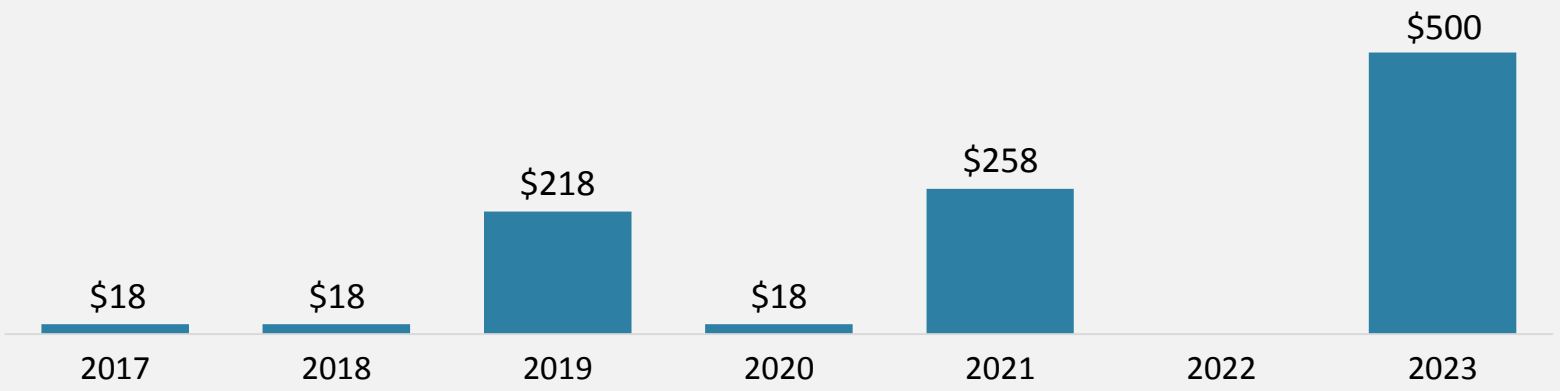
Revised Liability Profile to Align with Business Strategy

BEFORE – Early Maturing Debt Profile

Capital Structure

Key Items	Before
Cash:	$558M[1]
Outstanding debt balance:	$1,024M[1]
Interest rate:[2]	5.9%
Total annual interest cost:[2]	$60M
2017 adj. EBITDA guidance:[3]	$235M
Leverage:[4]	4.4x

Debt Payments $M



[1] Cash and outstanding debt balance as of March 31, 2017.
[2] Interest rate and total annual interest costs represent AMAG estimates.
[3] Reflects mid-point of financial guidance range. See slide 38 for a reconciliation of 2017 financial guidance.
[4] Leverage equals outstanding debt balance divided by 2017 adjusted EBITDA guidance.

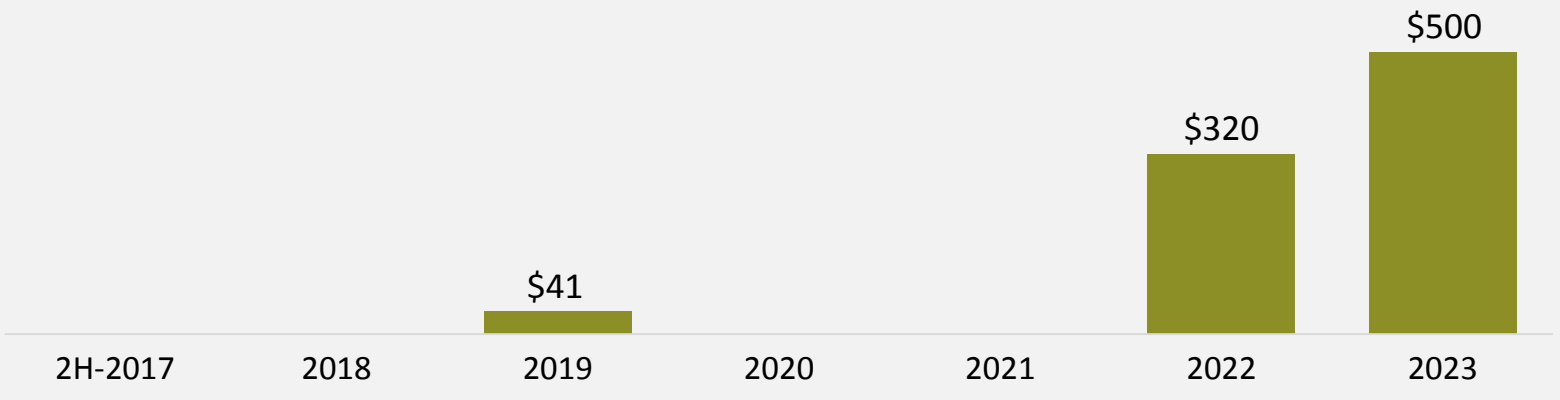
Revised Liability Profile to Align with Business Strategy

AFTER – Extended Debt Maturity Profile

Capital Structure

Key Items	Before		After
Cash:	$558M	→	$399M[1]
Outstanding debt balance:	$1,024M	→	$861M[1]
Interest rate:[2]	5.9%	→	5.9%
Total annual interest cost:[2]	$60M	→	$50.8M
2017 adj. EBITDA guidance:[3]	$235M	→	$235M
Leverage:[4]	4.4x	→	3.7x

Debt Payments $M



[1] Cash and outstanding debt balance as of June 30, 2017.
[2] Interest rate and total annual interest costs represent AMAG estimates.
[3] Reflects mid-point of financial guidance range. See slide 38 for a reconciliation of 2017 financial guidance.
[4] Leverage equals outstanding debt balance divided by 2017 adjusted EBITDA guidance.

Financial Results and Revamped Balance Sheet Support Evolving Business Model

- Debt maturities now align with business strategy
- Strong cash balance of $400M and positive EBITDA generation supportive of investments in:
  - Next generation products in current portfolio
  - Advancement of new product portfolio (Intrarosa and bremelanotide)
  - Expansion of portfolio through business development

2017 Key Priorities & Closing Remarks

Bill Heiden
President & CEO

AMAG Portfolio: Multiple Value Drivers

Milestone	2017				2018			
INTRAROSA	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Commercial launch in dyspareunia			✓					
Initiate Phase 3 female sexual dysfunction study				●				
MAKENA AUTO-INJECTOR PROGRAM	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Topline PK data	✓							
sNDA submission		✓						
Expected FDA action and commercial launch					●			
FERAHEME IDA LABEL EXPANSION	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
Enrollment completed	✓							
Topline data		✓						
Regulatory submission			✓					
Expected FDA action and commercial launch						●		
BREMELANOTIDE	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**	**Q2**	**Q3**	**Q4**
NDA submission					●			
Expected FDA action and commercial launch								●
VELO – SEVERE PREECLAMPSIA								
Initiate Phase 2b/3a study		✓						

2H-2017 Key Priorities

Intrarosa	▪ Drive successful launch – Continue to increase the number of covered lives – Market share – NRx and TRx (growth)
Makena	▪ Increase patient market share and adherence to therapy ▪ Prepare for launch of sub-q auto-injector in Q1-2018[1] ▪ Prepare for potential competitive threat in 2018
CBR	▪ Continue to grow new enrollments
Feraheme	▪ Hold/increase market share and grow market ▪ Prepare for launch of broad IDA (all causes) label in 1H-2018[1]
Bremelanotide	▪ Conclude all work in preparation for Q1-2018 NDA filing
Portfolio Expansion	▪ Expand and diversify product portfolio with longer-lived, durable assets through licensing or acquisition transactions
Financial	▪ Continue to drive toward net product sales of $660M (midpoint of guidance) ▪ Grow adjusted EBITDA to $235M (midpoint of guidance)

[1] If regulatory approval is received.




AMAG Pharmaceuticals

Q&A

Appendix

Reconciliation of GAAP to Non-GAAP Financial Results

($M)	Q2-2017	Q2-2016	1H-2017	1H-2016
GAAP operating income (loss)	**$3.6**	**$18.1**	**($36.4)**	**$25.5**
Purchase accounting adjustments related to CBR deferred revenue	1.4	5.1	2.7	13.6
Depreciation and intangible asset amortization	31.5	21.5	58.6	40.4
Non-cash inventory step-up adjustments	0.2	2.3	1.0	3.1
Stock-based compensation	5.9	5.2	11.7	11.4
Adjustments to contingent consideration	1.7	(3.7)	2.8	1.4
Restructuring costs	--	0.1	--	0.7
Transaction- / acquisition-related costs	--	--	1.5	--
Acquired IPR&D	5.8	--	65.8	--
Impairment of intangible assets	--	16.0	--	16.0
Non-GAAP adjusted EBITDA	**$50.1**	**$64.6**	**$107.7**	**$112.1**

Reconciliation of GAAP to Non-GAAP 2017 Financial Guidance

2017 Financial Guidance ($M)	
GAAP net loss	**($62) – ($31)**
Adjustments:	
Interest expense, net	66
Loss on debt extinguishment	10
Provision for income tax benefit	(37) – (18)
Operating income (loss)	**($23) – $27**
Purchase accounting adjustments related to CBR deferred revenue	6
Depreciation & intangible asset amortization	127
Non-cash inventory step-up adjustments	2
Stock-based compensation	27
Adjustments to contingent consideration	5
Acquired IPR&D[1]	66
Non-GAAP adjusted EBITDA	**$210 - $260**

[1] Reflects final transaction accounting treatment for Endoceutics license transaction that closed April 3, 2017.

Share Count Reconciliation

(M)	Q2-2017	Q2-2016	YTD 2017	YTD 2016
Weighted average basic shares outstanding	**35.1**	**34.2**	**34.8**	**34.5**
Employee equity incentive awards	--[1]	--[1]	--[1]	--[1]
Convertible notes	--[1]	--[1]	--[1]	--[1]
Warrants	--[1]	--[1]	--[1]	--[1]
GAAP diluted shares outstanding	**35.1**	**34.2**	**34.8**	**34.5**
Employee equity incentive awards	0.4[2]	0.4[2]	0.5[2]	0.3[2]
Non-GAAP diluted shares outstanding	**35.5**	**34.6**	**35.3**	**34.8**

[1] Employee equity incentive awards, convertible notes and warrants would be anti-dilutive in this period.

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

AMAG Pharmaceuticals

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August 3, 2017