

AMAG PHARMACEUTICALS INC.

Form 424B5

February 24, 2015

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Filed Pursuant to Rule 424b(5)

Registration No. 333-202252

The information in this preliminary prospectus supplement is not complete and may be changed. A registration statement relating to the securities has become effective under the Securities Act of 1933, as amended. This preliminary prospectus supplement and the accompanying prospectus is not an offer to sell the securities and it is not soliciting an offer to buy the securities in any jurisdiction where the offer or sale is not permitted.

Subject to completion, dated February 24, 2015

Prospectus supplement

(To prospectus dated February 24, 2015)

\$125,000,000

Common Stock

We are offering \$125,000,000 of our common stock to be sold in this offering.

Our common stock trades on The NASDAQ Global Select Market under the symbol AMAG. On February 23, 2015, the last reported sale price of our common stock on The NASDAQ Global Select Market was \$43.93 per share.

Investing in our common stock involves risks. Before buying any shares, you should read the discussion of material risks of investing in our common stock in **Risk factors** beginning on page S-4 of this prospectus supplement, and in the risks discussed in the documents incorporated by reference in this prospectus supplement, as they may be amended, updated or modified periodically in our reports filed

with the SEC.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Share	Total
Public offering price	\$	\$
Underwriting discounts and commissions (1)	\$	\$
Proceeds to us, before expenses	\$	\$

(1) See Underwriting.

We have granted the underwriters an option for a period of 30 days from the date of this prospectus to purchase up to an additional \$18,750,000 of our common stock at the public offering price less the underwriting discounts and commissions.

The underwriters expect to deliver the shares on or about , 2015.

J.P. Morgan

Deutsche Bank Securities

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ABOUT THIS PROSPECTUS SUPPLEMENT

We are providing information to you about this offering in two parts. The first part is this prospectus supplement, which describes the specific terms of the offering. The second part, the accompanying prospectus, gives more general information. You should read this prospectus supplement and the accompanying prospectus, including the information incorporated by reference herein and therein and any free writing prospectus we have authorized for use in connection with this offering, in their entirety before making an investment decision.

We have not and the underwriters have not authorized anyone to provide you with any information other than information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus or any free writing prospectus prepared by or on behalf of us or to which we have referred you. If the description of the offering varies between this prospectus supplement and the accompanying prospectus, you should rely on the information in this prospectus supplement. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you.

If the description of the offering varies between any free writing prospectus we have authorized for use in connection with this offering and this prospectus supplement, you rely on the information in such free writing prospectus.

You should assume that the information in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference herein and therein and in any free writing prospectus we have authorized for use in connection with this offering is accurate only as of the respective dates of those documents in which such information is contained, regardless of the time of delivery of this prospectus supplement or any sale of shares of common stock. Our business, financial condition, results of operations and prospects may have changed since those dates.

Any statement made in this prospectus supplement or in a document incorporated by reference in this prospectus supplement will be deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained in this prospectus supplement or in any other subsequently filed document that is also incorporated or deemed to be incorporated by reference in this prospectus supplement modifies or supersedes that statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement. See Documents Incorporated Herein by Reference in this prospectus supplement.

We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted.

References in this prospectus supplement and the accompanying prospectus to AMAG, the Company, we, our and us refer to AMAG Pharmaceuticals, Inc. and its consolidated subsidiaries, except where the context otherwise requires or as otherwise indicated.

TRADE NAMES, TRADEMARKS AND SERVICE MARKS

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AMAG Pharmaceuticals® and *Feraheme*® are registered trademark of AMAG Pharmaceuticals, Inc. *Rienso*™ is a trademark of Takeda Pharmaceutical Company Limited. *MuGuard*® is a registered trademark of PlasmaTech Biopharmaceuticals, Inc. (formerly known as Access Pharmaceuticals, Inc.) (PlasmaTech). *Makena*® is a registered trademark of Lumara Health Inc. (Lumara Health). *Lumara Health*™ is a registered trademark of Lumara Health. *Feraheme*®, our logo and other trade names, trademarks or service marks of AMAG appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference herein and therein and any free writing prospectus we authorize for use in connection with this offering are the property of AMAG. Trade names, trademarks and service marks of other organizations are the property of their respective holders.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Any statements in this prospectus supplement, the accompanying prospectus, any free writing prospectus, including the documents that we incorporate by reference herein, about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the Securities Act) and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. You can identify these forward-looking statements by the use of words or phrases such as believe, may, could, will, estimate, continue, anticipate, intend, seek, plan, expect, possible, should, or would. Among the factors that could cause actual results to differ materially from those indicated in the forward-looking statements are risks and uncertainties inherent in our business. Such risks and uncertainties include, among others:

- (1) our dependence on the success of our product portfolio and maintaining commercialization of our products, including *Makena* and *Feraheme*;
- (2) intense competition, including from generic products;
- (3) maintaining the proprietary nature of our technology;
- (4) our reliance on third parties in our business, including to manufacture our products, conduct our clinical trials and undertake distribution of our products;
- (5) our reliance on, and the extent of reimbursement from, third parties for the use of our products, including *Makena*'s high Medicaid reimbursement concentration;
- (6) the impact of *Makena*'s loss of orphan drug exclusivity in February 2018, competition from compounded pharmacies and our ability to implement *Makena*'s lifecycle management program;
- (7) perceptions related to pricing and access for *Makena*;
- (8) post-marketing commitments for *Makena*;
- (9) limitations on *Feraheme* sales given its narrow chronic kidney disease indication and the potential impact on sales of any actual or perceived safety problems;

(10) our ability to receive regulatory approval for *Feraheme* in the broader iron deficiency anemia (IDA) indication and *Feraheme* 's ability to compete in such market even if regulatory approval is pursued and received;

(11) our customer concentration, especially with regard to *Feraheme*;

(12) the impact of the termination of our arrangement with Takeda and our commercialization efforts, if any and including cessation thereof, for *Feraheme* outside of the U.S., including the impact on U.S. sales;

(13) our level of indebtedness, access to sufficient capital and availability of net operating loss carryforwards and other tax assets;

(14) the risk of potential litigation, including securities and product liability claims; and

(15) other risks identified in our filings with the U.S. Securities and Exchange Commission (SEC), including our Annual Report on Form 10-K for the fiscal year ended December 31, 2014 and subsequent filings with the SEC.

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Any of the above risks and uncertainties could materially and adversely affect our results of operations, our profitability and our cash flows, which would, in turn, have a significant and adverse impact on our stock price. Use of the term “including” in the two paragraphs above shall mean in each case “including, but not limited to.” We caution you not to place undue reliance on any forward-looking statements, which speak only as of the date they are made.

You should understand that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

Although we believe that the expectations reflected in our forward-looking statements are reasonable, we cannot guarantee future results, events, levels of activity, performance or achievement. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, unless required by law. Before deciding to purchase our securities, you should carefully consider the risk factors incorporated herein by reference, in addition to the other information set forth in this prospectus, any accompanying prospectus supplement, any free writing prospectus and in the documents incorporated by reference.

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SUMMARY

This summary highlights selected information contained elsewhere or incorporated by reference in this prospectus supplement and accompanying prospectus and does not contain all of the information you need to consider in making your investment decision. You should carefully read this entire prospectus supplement, the accompanying prospectus, including the documents incorporated by reference herein and therein, and any free writing prospectus we authorize for use in connection with this offering, before making an investment decision.

Overview

AMAG Pharmaceuticals, Inc., a Delaware corporation, was founded in 1981. We are a specialty pharmaceutical company with a diversified portfolio focusing on maternal health, anemia and cancer supportive care. We currently market Makena® (hydroxyprogesterone caproate injection), Feraheme® (ferumoxytol) Injection for Intravenous use to treat IDA, and MuGard® Mucoadhesive Oral Wound Rinse, for the management of oral mucositis. The primary goal of our company, is to bring to market products that provide clear benefits and improve patients lives.

Currently, our two primary sources of revenue are from the sale of *Makena* and *Feraheme*. On November 12, 2014, we acquired Lumara Health (the Lumara Acquisition), a privately-held pharmaceutical company specializing in women's health, for approximately \$600.0 million in upfront cash consideration (subject to finalization of certain adjustments related to Lumara Health's financial position at the time of closing, including adjustments related to working capital, net debt and transaction expenses as set forth in the definitive agreement with Lumara Health) and 3.2 million unregistered shares of our common stock having a fair value of \$112.0 million at the time of closing. In connection with the acquisition of Lumara Health, we acquired Lumara Health's marketed drug product, *Makena*, a progestin indicated to reduce the risk of preterm birth in women with a singleton pregnancy who have a history of singleton spontaneous preterm birth. We sell *Makena* to specialty pharmacies and distributors, who, in turn sell *Makena* to health care providers, hospitals, government agencies and integrated delivery systems. The Lumara Acquisition is described in greater detail in our Current Report on Form 8-K filed on November 12, 2014, as amended on January 12, 2015, as further amended on February 24, 2015, which is incorporated herein by reference.

Feraheme was approved for marketing in the U.S. in June 2009 by the U.S. Food and Drug Administration (FDA) for use as an intravenous iron replacement therapy for the treatment of IDA in adult patients with chronic kidney disease. We began selling *Feraheme* in the U.S. in July 2009 through our own commercial organization, including a specialty sales force. We sell *Feraheme* to authorized wholesalers and specialty distributors, who in turn, sell *Feraheme* to healthcare providers who administer *Feraheme* primarily within hospitals, hematology and oncology centers, and nephrology clinics.

On June 6, 2013, we entered into a License Agreement with PlasmaTech under which we acquired the U.S. commercial rights to *MuGard* (the MuGard License Agreement). *MuGard* is indicated for the management of oral mucositis/stomatitis (that may be caused by radiotherapy and/or chemotherapy) and all types of oral wounds (mouth sores and injuries), including aphthous ulcers/canker sores and traumatic ulcers, such as those caused by oral surgery or ill-fitting dentures or braces. Under the MuGard License Agreement, we obtained an exclusive, royalty-bearing license, with the right to grant sublicenses, to certain intellectual property rights, including know-how, patents and trademarks, to use, import, offer for sale, sell, manufacture and commercialize *MuGard* in the U.S. and its territories. In addition, PlasmaTech has assigned us all of its right, title and interest in *MuGard*-related internet and social media outlets and other sales, marketing and promotional materials currently owned or controlled by PlasmaTech. We sell *MuGard* to wholesalers and specialty and retail pharmacies.

In addition to continuing to pursue opportunities to make new advancements in patients' health and to enhance treatment accessibility, we intend to continue to expand and diversify our portfolio through the in-license or purchase of additional pharmaceutical products or companies. We are seeking complementary products that will leverage our corporate infrastructure, sales force call points and commercial expertise, with a particular focus on maternal health specialists, hematology and oncology centers, nephrology clinics and hospitals. We are evaluating and plan to pursue commercial products as well as late-stage development assets. In addition, we are contemplating transactions that allow us to realize cost synergies to increase cash flows, as well as transactions that potentially optimize after-tax cash flows.

Corporate information

Our common stock trades on The NASDAQ Global Select Market under the trading symbol AMAG.

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Our principal offices are located at 1100 Winter Street, Waltham, Massachusetts 02451, and our telephone number is (617) 498-3300. Our website address is www.amagpharma.com. Information found on, or accessible through, our website is not a part of, and is not incorporated into, this prospectus supplement, and you should not consider it part of this prospectus supplement. Our website address is included in this document as an inactive textual reference only.

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THE OFFERING

The summary below describes the principal terms of the offering. This summary does not contain all of the information that is important relating to an investment in the company and the shares of common stock offered hereby. Certain of the terms and conditions described below are subject to important limitations and exceptions. The "Description of Securities" section of the accompanying prospectus, as supplemented by the "Description of our common stock" and "Description of our preferred stock" sections of this prospectus supplement, contains a more detailed description of the terms and conditions of our capital stock. As used in this section, we, our and us refer only to AMAG Pharmaceuticals, Inc. and not to any of its subsidiaries.

Common stock offered by us	shares
Common stock to be outstanding immediately after this offering	shares (or shares if the underwriters exercise their option to purchase additional shares in full).
Option to purchase additional shares from us	We have granted the underwriters an option for a period of up to 30 days from the date of this prospectus to purchase up to additional shares from us.
Use of Proceeds	We intend to use the net proceeds from the sale of the securities offered by us pursuant to this prospectus for working capital and other general corporate purposes, including to continue the expansion and diversification of our product portfolio through the in-license or purchase of additional pharmaceutical products or companies. See "Use of proceeds" on page S-5.
Risk Factors	In analyzing an investment in the shares of common stock being offered pursuant to this prospectus supplement, you should carefully consider, along with other matters included or incorporated by reference in this prospectus supplement or the accompanying prospectus, the information set forth under "Risk factors" in this prospectus supplement and the risks discussed in the documents incorporated by reference in this prospectus supplement, as they may be amended, updated or modified periodically in our reports filed with the SEC.
NASDAQ symbol	AMAG

The number of shares of common stock to be outstanding after this offering is based on 25,599,550 shares of common stock outstanding on December 31, 2014 and excludes:

- 2,996,383 shares of our common stock issuable upon the exercise of outstanding stock options issued under our equity compensation plans, at a weighted average exercise price of \$22.60 per share;
- 541,226 shares of our common stock reserved for issuance in connection with restricted stock units issued under our equity compensation plans;

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- an additional 1,843,989 shares of our common stock available for future grants under our equity compensation plans;
- 7,381,581 shares of our common stock issuable upon the exercise of outstanding warrants, at an initial exercise price of \$34.12; and
- 7,381,580 shares of our common stock issuable upon the conversion of our outstanding 2.5% convertible senior notes, at an initial conversion price of \$27.09 per share, the impact of which may be reduced by the delivery to us of 2,689,722 shares of our common stock upon our exercise of convertible bond hedges, at an exercise price of \$27.09 per share.

Except as otherwise noted, all information in this prospectus supplement assumes no exercise by the underwriters of their option to purchase additional shares of common stock from us.

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RISK FACTORS

An investment in our securities involves a high degree of risk. In addition to the other information included in, or incorporated by reference into, this prospectus, the applicable prospectus supplement and any related free writing prospectus, you should carefully consider the risk factors incorporated by reference to our Annual Report on Form 10-K for the year ended December 31, 2014, as the same may be updated from time to time by our future filings under the Exchange Act (including by the filing of Current Reports on Form 8-K), when determining whether or not to purchase the securities offered under this prospectus supplement and the accompanying prospectus. If any of these risks were to occur, our business, financial condition or results of operations would likely suffer. In that event, the value of our securities could decline, and you could lose all or part of your investment. The risks and uncertainties we describe are not the only ones we face. Additional risks not presently known to us or that we currently deem immaterial may also impair our business operations and trading price of our common stock.

This prospectus supplement also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks faced by us described below and elsewhere in this prospectus. See Cautionary note regarding forward-looking statements for information relating to these forward-looking statements.

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USE OF PROCEEDS

We estimate that the proceeds from this offering will be approximately \$ million (or \$ million if the underwriters exercise their option to purchase additional shares of common stock in full), after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use the net proceeds from this offering for working capital and other general corporate purposes, including to continue the expansion and diversification of our product portfolio through the in-license or purchase of additional pharmaceutical products or companies.

Pending these uses, we intend to invest the net proceeds in high quality, investment grade, short-term fixed income instruments which include corporate, financial institution, federal agency or U.S. government obligations. We will retain broad discretion over the use of these proceeds.

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The following table sets forth our cash, cash equivalents and investments and our capitalization as of December 31, 2014:

- on an actual basis; and
- on an as adjusted basis, giving effect to the sale by us of 2,845,435 shares of our common stock in this offering at an assumed public offering price of \$43.93 per share, which was the last reported sale price of our common stock on The NASDAQ Global Select Market on February 23, 2015, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

You should read this table in conjunction with "Use of proceeds" appearing elsewhere in this prospectus supplement, as well as with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our audited consolidated financial statements and the related notes thereto, incorporated by reference into this prospectus supplement from our Annual Report on Form 10-K for the year ended December 31, 2014.

	As of December 31, 2014	
	Actual	As Adjusted
	(in thousands, except share and per share data)	
Cash, cash equivalents and investments	\$ 144,186	\$ 261,523
Long-term debt, net of discount, including current portion	\$ 327,905	\$ 327,905
Convertible 2.5% senior notes, net of discount	167,441	167,441
Total debt, net of discount	495,346	495,346
Stockholders' equity:		
Preferred stock, par value \$0.01 per share; 2,000,000 shares authorized, actual and as adjusted; no shares issued or outstanding, actual and as adjusted		
Common stock, par value \$0.01 per share; 58,750,000 shares authorized, 25,599,550 shares issued and outstanding, actual; 58,750,000 shares authorized, 28,444,985 shares issued and outstanding, as adjusted	256	284
Additional paid-in capital	793,757	911,066
Accumulated other comprehensive loss	(3,617)	(3,617)
Accumulated deficit	(330,443)	(330,443)
Total stockholders' equity	459,953	577,290
Total capitalization	\$ 955,299	\$ 1,072,636

The number of shares of our common stock in the table above excludes:

- 2,996,383 shares of our common stock issuable upon the exercise of outstanding stock options issued under our equity compensation plans, at a weighted average exercise price of \$22.60 per share;

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- 541,226 shares of our common stock reserved for issuance in connection with restricted stock units issued under our equity compensation plans;
- an additional 1,843,989 shares of our common stock available for future grants under our equity compensation plans;
- 7,381,581 shares of our common stock issuable upon the exercise of outstanding warrants, at an initial exercise price of \$34.12; and
- 7,381,580 shares of our common stock issuable upon the conversion of our outstanding 2.5% convertible senior notes, at an initial conversion price of \$27.09 per share, the impact of which may be reduced by the delivery to us of 2,689,722 shares of our common stock upon our exercise of convertible bond hedges, at an exercise price of \$27.09 per share.

All applicable share, per share and related information in this prospectus supplement speaks as of December 31, 2014, unless otherwise indicated.

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DIVIDEND POLICY

We have never declared or paid a cash dividend on our common stock. We currently anticipate that we will retain all of our earnings for use in the development of our business and do not anticipate paying any cash dividends in the foreseeable future. Payment of future dividends, if any, will be at the discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements, restrictions contained in current or future financing instruments and other factors our board of directors deems relevant.

PRICE RANGE OF COMMON STOCK

Our common stock trades on The NASDAQ Global Select Market, or NASDAQ, under the trading symbol AMAG. The following table shows the high and low sale prices per share of our common stock as reported on NASDAQ for the periods indicated:

	High	Low
Year ended December 31, 2014		
Fourth quarter	\$ 44.81	\$ 29.76
Third quarter	\$ 33.57	\$ 17.79
Second quarter	\$ 20.88	\$ 16.49
First quarter	\$ 24.93	\$ 18.52
Year ended December 31, 2013		
Fourth quarter	\$ 28.42	\$ 18.94
Third quarter	\$ 27.00	\$ 20.35
Second quarter	\$ 25.67	\$ 18.46
First quarter	\$ 23.98	\$ 15.00

The last reported sale price of our common stock on NASDAQ on February 23, 2015 was \$43.93 per share. As of February 23, 2015, we had approximately 156 holders of record of our common stock.

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DESCRIPTION OF OUR COMMON STOCK

This section describes the general terms of our common stock. For more detailed information, a holder of our common stock should refer to our certificate of incorporation, our by-laws and our rights agreement with respect to our preferred share purchase rights plan, copies of which are filed with the SEC as exhibits to the registration statement of which this prospectus supplement is a part.

We are authorized to issue up to 58,750,000 shares of common stock, \$0.01 par value per share. As of February 23, 2015, approximately 25,710,427 shares of common stock were outstanding.

Holders of our common stock are entitled to one vote per share and vote together as a single class on all matters to be voted on by our stockholders. Pursuant to our certificate of incorporation, there are no cumulative voting rights in the election of directors. The approval of corporate actions may also require the approval of the holders of any series of our preferred stock. See Description of our preferred stock.

Our common stock will be the only type of our capital stock entitled to vote in the election and removal of directors and other matters presented to our stockholders from time to time, unless we issue voting preferred stock or our certificate of incorporation or the law requires otherwise.

Our common stockholders will be entitled to receive dividends and distributions declared by our board of directors, or our board, to the extent permitted by outstanding series of preferred stock and by our certificate of incorporation. If a dividend is declared, it will be distributed pro rata to our common stockholders on a per share basis.

If we are liquidated or dissolved, our common stockholders will be entitled to receive our assets and funds available for distribution to common stockholders in proportion to the number of shares they hold. Our common stockholders may not receive any assets or funds until our creditors have been paid in full and the preferential or participating rights of our preferred stockholders, if any, have been satisfied.

Holders of our common stock will not have any preemptive, subscription or conversion rights with respect to shares of our common stock. We may issue additional shares of our common stock, if authorized by our board, without the common stockholders' approval, unless required by Delaware law or a stock exchange on which our securities are traded. The issuance of additional shares could have the effect of diluting any earnings per share and the book value per share of outstanding shares of common stock. If we receive the appropriate payment, shares of our common stock that we issue will be fully paid and nonassessable. There are no redemption or sinking fund provisions applicable to our common stock.

Description of certain provisions of Delaware law and our certificate of incorporation and by-laws

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We are organized as a Delaware corporation. The following is a summary of our certificate of incorporation and by-laws and certain provisions of the Delaware General Corporation Law, or the DGCL. Because it is a summary, it does not contain all the information that may be important to you. If you want more information, you should read our entire certificate of incorporation and by-laws, copies of which are filed with the SEC as exhibits to the registration statement of which this prospectus supplement is a part.

Classification of directors

Our by-laws provide that, except as otherwise required by specific provisions of the certificate of incorporation relating to the rights of holders of any class or series of preferred stock to elect additional directors under specified circumstances, the number of our directors may be fixed from time to time by a resolution adopted by a majority of our board of directors but must not be less than one. Our board of directors is not classified into classes. A director may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors, subject to the rights of any series of preferred stock then outstanding.

Meetings of stockholders

Except as otherwise required by law and subject to the rights of holders of any class or series of preferred stock, special meetings of the stockholders may only be called by our President or by our board of directors. No business other than that stated in the notice of meeting may be transacted at any special meeting of stockholders. Our by-laws limit the business that may be conducted at an annual meeting of stockholders to those matters properly brought before the meeting.

Limitation of liability and indemnification

Our certificate of incorporation provides that we shall indemnify our directors and officers to the fullest extent that Delaware law permits. Our certificate of incorporation also provides that we, by action of our board of directors, may provide indemnification to our employees and agents with the same scope and effect as the indemnification of our officers and directors. Delaware law permits a corporation to indemnify any director, officer, employee or agent made or threatened to be made a party to any pending or completed proceeding if the person acted in good faith and in a manner that the person reasonably believed to be in the best interests of the corporation and, with respect to any criminal proceeding, had no reasonable cause to believe that his or her conduct was unlawful.

Our certificate of incorporation limits the liability of our directors to the fullest extent permitted by the DGCL. Delaware law provides that directors will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except liability for:

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- any breach of their duty of loyalty to the corporation or its stockholders;
- acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions; or
- any transaction from which the director derived an improper personal benefit.

The effect of this provision may be to reduce the likelihood of derivative litigation against directors for breach of their duty of care, even though the action, if successful, might otherwise have benefited us and our stockholders. This provision has no effect on any non-monetary remedies that may be available to us or our stockholders, nor does it relieve us or our officers or directors from compliance with federal or state securities laws.

Each of our directors and executive officers is party to an indemnification agreement that provides specific contractual assurance that the indemnification protection promised by certificate of incorporation and by-laws will be available.

As permitted by our certificate of incorporation, we have purchased and maintain insurance on behalf of our directors and officers for any expense, liability or loss incurred by them arising out of their actions in that capacity if we would have the power to indemnify such person against such expense, liability or loss under the DGCL.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling the registrant pursuant to the foregoing provisions, the registrant has been informed that in the opinion of the SEC such indemnification is against public policy and is therefore unenforceable.

Undesignated preferred stock

Our certificate of incorporation provides for 2,000,000 authorized shares of preferred stock (of which our board has designated 45,000 shares as Series A Junior Participating Preferred Stock). The existence of authorized but unissued shares of preferred stock may enable our board of directors to render more difficult or to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise. For example, if in the due exercise of its fiduciary obligations, our board of directors were to determine that a takeover proposal is not in the best interests of our stockholders, our board of directors could cause shares of preferred stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquirer or insurgent stockholder or stockholder group. In this regard, our certificate of incorporation grants our board of directors broad power to establish the rights and preferences of authorized and unissued shares of preferred stock. The issuance of shares of preferred stock could decrease the amount of

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earnings and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of these holders and may have the effect of delaying, deterring or preventing a change in control of us.

Section 203 of the Delaware General Corporation Law

Section 203 of the DGCL prohibits a defined set of transactions between a Delaware corporation, such as us, and an interested stockholder. An interested stockholder is defined as a person who, together with any affiliates or associates of such person, beneficially owns, directly or indirectly, 15% or more of the outstanding voting stock of a Delaware corporation. This provision may prohibit business combinations between an interested stockholder and a corporation for a period of three years after the date the interested stockholder becomes an interested stockholder. The term business combination is broadly defined to include mergers, consolidations, sales or other dispositions of assets having a total value in excess of 10% of the consolidated assets of the corporation, and some other transactions that would increase the interested stockholder's proportionate share ownership in the corporation.

This prohibition is effective unless:

- either the business combination or the transaction that resulted in the interested stockholder becoming an interested stockholder is approved by our board prior to the time the interested stockholder becomes an interested stockholder;
- the interested stockholder owns at least 85% of our voting stock, other than stock held by directors who are also officers or by qualified employee stock plans, upon completion of the transaction in which it becomes an interested stockholder; or
- the business combination is approved by a majority of our board and by the affirmative vote of 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, the prohibitions do not apply to business combinations with persons who were interested stockholders prior to the corporation becoming subject to Section 203.

Stock Exchange Listing

Our common stock is listed on The NASDAQ Global Select Market. The trading symbol for our common stock is AMAG.

Transfer Agent and Registrar

American Stock Transfer & Trust Company is the transfer agent and registrar for our common stock.

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DESCRIPTION OF OUR PREFERRED STOCK

This section describes the general terms and provisions of our preferred stock including our Series A Junior Participating Preferred Stock. We will file a copy of the certificate of designation that contains the terms of each new series of preferred stock with the SEC each time we issue a new series of preferred stock, and these certificates of designation will be incorporated by reference into the registration statement of which this prospectus supplement is a part. Each certificate of designation will establish the number of shares included in a designated series and fix the designation, powers, privileges, preferences and rights of the shares of each series as well as any applicable qualifications, limitations or restrictions. A holder of our preferred stock should refer to the applicable certificate of designation, our certificate of incorporation and the applicable prospectus supplement (and any related free writing prospectus that we may authorize to be provided to you) for more specific information.

We are authorized to issue up to 2,000,000 shares of preferred stock, \$0.01 par value per share, in multiple series, subject to limitations provided in our certificate of incorporation. To date, our board has designated 45,000 of the 2,000,000 authorized shares of preferred stock as Series A Junior Participating Preferred Stock, which series is described in greater detail below under Preferred Share Purchase Rights Plan. As of February 23, 2015, no other series has been designated and no shares of our preferred stock were outstanding.

With respect to each new series of our preferred stock, our board has the authority to fix, among other things, the following terms:

- the designation of the series;
- the number of shares within the series;
- whether the dividends are cumulative and, if cumulative, the dates from which dividends are cumulative;
- the rate of any dividends, any conditions upon which dividends are payable, and the dates of payment of dividends;
- whether the shares are redeemable, the redemption price and the terms of redemption;
- the amount payable to a holder for each share owned if we are dissolved or liquidated;

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- whether the shares are convertible or exchangeable, the price or rate of exchange, and the applicable terms and conditions;
- any restrictions on issuance of shares in the same series or any other series;
- the voting rights, if any, of the shares of the series;
- the provisions for a sinking fund, if any; and
- any listing of the preferred stock on any securities exchange or market.

Holders of our preferred stock will not have preemptive rights with respect to shares of our preferred stock. In addition, rights with respect to shares of our preferred stock will be subordinate to the rights of our general creditors. If we receive the appropriate payment, shares of our preferred stock that we issue will be fully paid and nonassessable.

Preferred Share Purchase Rights Plan. Each outstanding share of our common stock has attached to it one preferred share purchase right, which we refer to as a right. Each right entitles the registered holder of our common stock to purchase from us one one-thousandth of a share of Series A Junior Participating Preferred Stock, which we refer to as participating preferred shares, at a price of \$80 per one one-thousandth of a participating preferred share, subject to adjustment. Each one one-thousandth of a share of participating preferred shares has designations and powers, preferences and rights, and the qualifications, limitations and restrictions that make its value approximately equal to the value of a share of our common stock at the end of the ten-year term of the rights. The description and terms of the rights are set forth in a Rights Agreement, dated as of September 4, 2009, between us and American Stock Transfer & Trust Company, LLC, as rights agent, as amended on February 11, 2014 and September 26, 2014, or the rights agreement, which is incorporated by reference as an exhibit into the registration statement of which this prospectus supplement is a part.

Until the distribution date described below, we will not issue separate certificates evidencing the rights. Until that date, the rights will be evidenced, with respect to any common stock certificate, by that common stock certificate. The rights will detach from the common stock and a distribution date will occur upon the earlier of the following dates:

- the 10th calendar day following the date of a public announcement that an acquiring person, which may include an entity or group of affiliated or associated persons, has acquired beneficial ownership of 4.99% or more of our outstanding common stock; or
- the 10th business day following the commencement of, or announcement of an intention to make, a tender offer or exchange offer which would result in the beneficial ownership by an acquiring person of 4.99% or more of our outstanding common stock.

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Notwithstanding the foregoing, with respect to any person who beneficially owns 4.99% or more of our outstanding shares of common stock as of September 29, 2014, the distribution date will not occur unless such person has acquired beneficial ownership of shares of common stock representing an additional 1/4% of our outstanding shares of common stock. Our board may postpone the distribution date by determining a later distribution date before the time any person or group an acquiring person.

The term "acquiring person" does not include us, any of our subsidiaries, any of our or our subsidiaries' employee benefit or compensation plans or any entity holding our common stock for or under any of our or our subsidiaries' employee benefit or compensation plans. In addition, a person who would otherwise be an acquiring person will not be considered an acquiring person if our board determines in good faith that such person inadvertently became the beneficial owner (as defined in the Rights Agreement, which is consistent with how ownership is defined under Section 382 of the Internal Revenue Code) of 4.99% or more of our common stock and such person divests itself, as promptly as practicable following written notice from us, of beneficial ownership of a sufficient number of shares of our common stock so that it would no longer otherwise qualify as an acquiring person or, in the case of any derivative securities underlying a transaction entered into by such person or otherwise acquired by such person, such person terminates such transaction or otherwise disposes of such derivative securities so that such person would no longer be an "acquiring person," then such person shall not be considered an "acquiring person."

In addition, except under limited circumstances, no person or entity shall become an acquiring person as the result of our acquisition of our common stock that, by reducing the number of shares outstanding, increases the proportionate number of shares beneficially owned by such person or entity to 4.99% or more of our outstanding common stock; *provided, however*, that if a person shall become the beneficial owner of 4.99% or more of our outstanding common stock by reason of our acquisition of our common stock and shall, following written notice from us, or public disclosure by us of such share purchases by us, become the beneficial owner of any additional common stock without our prior consent and shall then beneficially own more than 4.99% of our common stock, then outstanding, then such person shall be deemed to be an "acquiring person."

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The rights agreement provides that, until the distribution date, or earlier redemption or expiration of the rights, the rights will be transferred only with our common stock. The rights will be evidenced, with respect to any common stock certificate outstanding as of September 17, 2009, by that common stock certificate with a summary of the rights attached to it. Until the distribution date, or earlier redemption or expiration of the rights, new common stock certificates issued after September 17, 2009 upon transfer or new issuances of common stock will contain a notation incorporating the rights agreement by reference. Until the distribution date, the surrender for transfer of any certificates for common stock, even without a summary of the rights attached to it, also will constitute the transfer of the rights associated with the common stock represented by that certificate. As soon as practicable after the distribution date, separate certificates evidencing the rights will be mailed to holders of record of our common stock as of the close of business on the distribution date, and the separate right certificates alone will evidence the rights.

The rights are not exercisable until the distribution date. The rights as modified on September 26, 2014 will expire at the earliest of (i) March 31, 2017, (ii) the time at which the rights are redeemed or exchanged as described below, (iii) the effective date of the repeal of Section 382 if the Internal Revenue Code or any successor statute if our board of directors determines that the shareholder rights plan is no longer necessary or desirable for the preservation of tax benefits, (iv) the first day of a taxable year to which our board of directors determines that no tax benefits may be carried forward or (v) September 26, 2015 if stockholder approval of the amendment to the rights plan executed on September 26, 2014 has not been obtained by or on such date.

The purchase price payable for the participating preferred shares, and the number of participating preferred shares or other securities or property issuable, upon exercise of the rights, as well as the number of rights outstanding, are subject to adjustment from time to time to prevent dilution in the following circumstances:

- a stock dividend on, or a subdivision, combination or reclassification of, the participating preferred shares;
- upon the grant to holders of the participating preferred shares of certain rights or warrants to subscribe for or purchase participating preferred shares at a price, or securities convertible into participating preferred shares with a conversion price, less than the then current market price of the participating preferred shares; or
- upon the distribution to holders of the participating preferred shares of evidences of indebtedness or assets (excluding regular periodic cash dividends paid out of earnings or retained earnings or dividends payable in participating preferred shares) or of subscription rights or warrants (other than those referred to above).

The exercise of rights to purchase participating preferred shares is at all times subject to the availability of a sufficient number of authorized but unissued participating preferred shares.

The number of outstanding rights and the number of one one-thousandths of a participating preferred share issuable upon exercise of each right are also subject to adjustment in the event of a dividend or other distribution on the common stock payable in common stock or subdivisions, consolidations or combinations of our common stock occurring, in any of those cases, before the distribution date.

Participating preferred shares purchasable upon exercise of the rights will be non-redeemable and rank junior to any other series of our preferred stock. Each participating preferred share would be entitled to receive a minimum preferential quarterly dividend payment of \$1.00 per share but would be entitled to receive an aggregate dividend of 1,000 times the dividend declared per share of our common stock. If there is a liquidation, the holders of the participating preferred shares will be entitled to a minimum preferential liquidation payment of \$80 per share and will be

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entitled to an aggregate payment of 1,000 times the payment made per share of our common stock. Each participating preferred share will have 1,000 votes, voting together with our common stock. Finally, in the event of any merger, consolidation or other transaction in which our common shares are exchanged, each participating preferred share will be entitled to receive 1,000 times the amount of consideration received per common share. These rights are protected by customary anti-dilution provisions.

Because of the nature of the dividend, liquidation and voting rights of the participating preferred shares, the value of the one one-thousandth interest in a participating preferred share purchasable upon exercise of each right should approximate the value of one share of our common stock.

In the event that any person or group of affiliated or associated persons becomes an acquiring person, proper provision shall be made so that each holder of a right, other than rights beneficially owned by the acquiring person and its associates and affiliates (which will thereafter be void), will for a sixty (60) day period have the right to receive upon exercise that number of common shares having a market value of two times the exercise price of the right (or, if such number of shares is not and cannot be authorized, we may issue participating preferred shares, cash, debt, stock or a combination thereof in exchange for the rights). This right will terminate sixty (60) days after the date on which the rights become nonredeemable (as described below), unless there is an injunction or similar obstacle to exercise of the rights, in which event this right will

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terminate sixty (60) days after the date on which the rights again become exercisable.

If we are acquired in a merger or other business combination transaction or 50% or more of our consolidated assets or earning power are sold to an acquiring person, its associates or affiliates or certain other persons in which such persons have an interest, proper provision will be made so that each holder of a right will thereafter have the right to receive, upon the exercise thereof at the then current exercise price of the right, that number of shares of common stock of the acquiring company that at the time of such transaction will have a market value of two times the exercise price of the right.

At any time after an acquiring person becomes an acquiring person and prior to the acquisition by such acquiring person of 50% or more of our outstanding common shares, our board may exchange the rights (other than rights owned by such person or group that have become void), in whole or in part, at an exchange ratio of one common share per right (or, in lieu of the common shares, at our election, we may issue cash, debt, stock or a combination thereof in exchange for the rights), subject to adjustment.

With specified exceptions, no adjustments in the purchase price for the preferred shares will be required until cumulative adjustments require an adjustment of at least 1% in the purchase price. No fractional participating preferred shares will be issued, other than fractions that are integral multiples of one one-thousandth of a participating preferred share, which may, at our election, be evidenced by depositary receipts. Instead of issuing fractional participating preferred shares, we will make an adjustment in cash based on the closing price of the participating preferred shares on the last trading day immediately before the date of exercise.

At any time prior to the earliest of (i) the day that a person has become an acquiring person or (ii) September 17, 2019, our board may redeem the rights in whole, but not in part, at a price of \$0.01 per right, which may be paid in cash, common shares or any other consideration deemed appropriate by our board. The rights become nonredeemable on the day that a person has become an acquiring person. Immediately upon any redemption of the rights, the right to exercise the rights will terminate and the only right of the holders of rights will be to receive the redemption price.

Until a right is exercised, the holder of the right, in the capacity of a holder, will have no rights as a stockholder of ours, including, without limitation, the right to vote or to receive dividends. Although the distribution of the rights will not be taxable to stockholders or to us, stockholders may, depending upon the circumstances, recognize taxable income in the event that the rights become exercisable for our common stock or other consideration, or for common stock of any company acquiring us.

The terms of the rights generally may be amended by our board without the consent of the holders of the rights, except that from and after the time that the rights are no longer redeemable, no such amendment may adversely affect the interests of the holders of the rights (excluding the interests of any acquiring person and any group of affiliated or associated persons).

The rights have certain anti-takeover effects. The rights will cause substantial dilution to a person or group that attempts to acquire us on terms not approved by our board. The rights should not interfere with any merger or other business combination approved by our board since the rights may be amended to permit such acquisition or redeemed by us at the redemption price prior to the earliest of (i) the time that a person or group has acquired beneficial ownership of 4.99% or more of our common shares or (ii) September 17, 2019.

Transfer Agent and Registrar. We currently plan to retain American Stock Transfer & Trust Company as the registrar and transfer agent of any series of our preferred stock.

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MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS

The following is a summary of the material U.S. federal income tax consequences of the ownership and disposition of our common stock to non-U.S. holders, but does not purport to be a complete analysis of all the potential tax considerations relating thereto. This summary is based upon the provisions of the Internal Revenue Code of 1986, as amended, or the Code, Treasury regulations promulgated thereunder, administrative rulings and judicial decisions, all as of the date hereof. These authorities may be changed or subject to differing interpretations, possibly with retroactive effect, so as to result in U.S. federal income tax consequences different from those set forth below. We have not sought any ruling from the Internal Revenue Service, or the IRS, with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS will agree with such statements and conclusions.

This summary also does not address the tax considerations arising under the laws of any U.S. state or local or any non-U.S. jurisdiction, the Medicare tax on net investment income or any alternative minimum tax consequences. In addition, this discussion does not address tax considerations applicable to an investor's particular circumstances or to investors that may be subject to special tax rules, including, without limitation:

- banks, insurance companies or other financial institutions;
- tax-exempt organizations;
- dealers in securities;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- persons that own, or are deemed to own, more than five percent of our capital stock;
- certain former citizens or long-term residents of the United States;
- persons who hold our common stock as a position in a hedging transaction, straddle, conversion transaction or other risk reduction transaction;

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- persons who do not hold our common stock as a capital asset within the meaning of Section 1221 of the Code (generally, for investment purposes);
- persons deemed to sell our common stock under the constructive sale provisions of the Code;
- regulated investment companies; or
- pension plans;

In addition, if a partnership, including any entity or arrangement classified as a partnership for U.S. federal income tax purposes, holds our common stock, the tax treatment of a partner generally will depend on the status of the partner and upon the activities of the partnership. Accordingly, partnerships that hold our common stock, and partners in such partnerships, should consult their tax advisors.

You are urged to consult your tax advisor with respect to the application of the U.S. federal income tax laws to your particular situation, as well as any tax consequences of the purchase, ownership and disposition of our common stock arising under the U.S. federal estate or gift tax rules or under the laws of any U.S. state or local or any non-U.S. or other taxing jurisdiction or under any applicable tax treaty.

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Non-U.S. Holder Defined

For purposes of this discussion, you are a non-U.S. holder if you are a beneficial owner of our common stock that is for United States federal income tax purposes (i) a foreign corporation, (ii) a nonresident alien individual, or (iii) a foreign estate or trust that in either case is not subject to U.S. federal income tax on a net- income basis on income or gain from a note or share of common stock.

Distributions

If we make distributions on our common stock, those payments will constitute dividends for U.S. tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent those distributions exceed both our current and our accumulated earnings and profits, they will constitute a return of capital and will first reduce your basis in our common stock, but not below zero, and then will be treated as gain from the sale of stock.

Any dividend paid to you generally will be subject to U.S. withholding tax either at a rate of 30% of the gross amount of the dividend or such lower rate as may be specified by an applicable income tax treaty. In order to receive a reduced treaty rate, you must provide us with an IRS Form W-8BEN (generally including a U.S. taxpayer identification number), an IRS Form W-8 BEN-E or other appropriate version of IRS Form W-8 (or a successor form), in each case certifying qualification for the reduced rate.

Dividends that are effectively connected with the conduct of a U.S. trade or business (and, if an income tax treaty applies, are attributable to a permanent establishment maintained by you in the United States) generally are exempt from such withholding tax. In order to obtain this exemption, you must provide an IRS Form W-8ECI or successor form or other applicable IRS Form W-8 properly certifying such exemption. Such effectively connected dividends, although not subject to withholding tax, are taxed at the same graduated rates applicable to U.S. persons, net of certain deductions and credits, subject to an applicable income tax treaty providing otherwise. In addition, if you are a corporate non-U.S. holder, dividends that are effectively connected with your conduct of a U.S. trade or business (and, if an income tax treaty applies, are attributable to a permanent establishment maintained by you in the United States) may also be subject to a branch profits tax at a rate of 30% or such lower rate as may be specified by an applicable income tax treaty.

If you are eligible for a reduced rate of withholding tax pursuant to a tax treaty, you may be able to obtain a refund of any excess amounts currently withheld if you file an appropriate claim for refund with the IRS.

Gain on Sale or Other Disposition of Common Stock

Subject to the discussion below regarding backup withholding and FATCA, a non-U.S. Holder generally will not be required to pay U.S. federal income tax on any gain realized upon the sale or other disposition of our common stock unless:

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- the gain is effectively connected with the conduct of a U.S. trade or business (and, if an income tax treaty applies, is attributable to a permanent establishment maintained by you in the U.S.), in which case you will be required to pay tax on the net gain derived from the sale under regular graduated U.S. federal income tax rates, if you are a corporation, you may be subject to the branch profits tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty;
- you are an individual who is present in the United States for a period or periods aggregating 183 days or more during the calendar year in which the sale or disposition occurs and certain other conditions are met, in which case you will be required to pay a flat 30% tax on the gain derived from the sale, which tax may be offset by U.S.-source capital losses (even though you are not considered a resident of the United States) (or such lower rate as may be specified by an applicable income tax treaty); or
- we are a U.S. real property holding corporation for U.S. federal income tax purposes, or USRPHC, at any time within the shorter of the five-year period preceding the disposition or your holding period for our common stock. We believe that we are not currently and will not become a USRPHC. However, because the determination of whether we are a USRPHC depends on the fair market value of our U.S. real property relative to the fair market value of our other business assets, there can be no assurance that we will not become a USRPHC in the future. Even if we

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become a USRPHC, however, as long as our common stock is regularly traded on an established securities market, you will not be subject to this tax unless you actually or constructively own more than five percent of our common stock at any time during the applicable period.

Backup Withholding and Information Reporting

Generally, we must report annually to the IRS the amount of dividends paid to you, your name and address, and the amount of tax withheld, if any. A similar report will be sent to you. Pursuant to applicable income tax treaties or other agreements, the IRS may make these reports available to tax authorities in your country of residence.

Payments of dividends or of proceeds on the disposition of stock made to you may be subject to additional information reporting and backup withholding at a current rate of 28% unless you establish an exemption, for example by properly certifying your non-U.S. status on an IRS Form W-8BEN, IRS Form W-8BEN-E or other appropriate version of IRS Form W-8 (or a successor form). Notwithstanding the foregoing, backup withholding and information reporting may apply if our withholding agent has actual knowledge, or reason to know, that you are a U.S. person.

Backup withholding is not an additional tax; rather, the U.S. income tax liability of persons subject to backup withholding will be reduced by the amount of tax withheld. If withholding results in an overpayment of taxes, a refund or credit may generally be obtained from the IRS, provided that the required information is furnished to the IRS in a timely manner.

Foreign Account Tax Compliance Act (FATCA)

Provisions commonly referred to as FATCA may impose withholding tax on certain types of payments made to foreign financial institutions and certain other non-U.S. entities. The legislation imposes a 30% withholding tax on dividends on, or gross proceeds from the sale or other disposition of, our common stock paid to a foreign financial institution or to certain non-financial foreign entities, unless (i) the foreign financial institution undertakes certain diligence and reporting obligations or (ii) the non-financial foreign entity either certifies it does not have any substantial U.S. owners or furnishes identifying information regarding each substantial U.S. owner and such entity meets certain other specified requirements. If the payee is a foreign financial institution, it must enter into an agreement with the U.S. Treasury requiring, among other things, that it undertake to identify accounts held by certain U.S. persons or U.S.-owned foreign entities, annually report certain information about such accounts, and withhold 30% on payments to account holders whose actions prevent it from complying with these reporting and other requirements. If the country in which a payee is resident has entered into an intergovernmental agreement with the United States regarding FATCA, that agreement may permit the payee to report to that country rather than to the U.S. Treasury. Under final regulations and published guidance, any obligation to withhold from payments made to a foreign financial institution or a foreign non-financial entity under this legislation with respect to dividends on our common stock began on July 1, 2014, but with respect to the gross proceeds of a sale or other disposition of our common stock will not begin until January 1, 2017. You should consult your tax advisor regarding FATCA.

The preceding discussion of U.S. federal tax considerations is for general information only. It is not tax advice. You should consult your own tax advisor regarding the particular U.S. federal, state and local and non-U.S. tax consequences of purchasing, holding and disposing of our common stock, including the consequences of any proposed change in applicable laws.

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We are offering the shares of common stock described in this prospectus supplement through a number of underwriters. J.P. Morgan Securities LLC and Deutsche Bank Securities Inc. are acting as joint book-running managers of the offering and as representatives of the underwriters. We have entered into an underwriting agreement with the underwriters. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters, and each underwriter has severally agreed to purchase, at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus supplement, the number of shares of common stock listed next to its name in the following table:

Name	Number of Shares
J.P. Morgan Securities LLC	
Deutsche Bank Securities Inc.	
Total	

The underwriters are committed to purchase all the common shares offered by us if they purchase any shares. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may also be increased or the offering may be terminated.

The underwriters propose to offer the common shares directly to the public at the public offering price set forth on the cover page of this prospectus supplement and to certain dealers at that price less a concession not in excess of \$ per share. After the public offering of the shares, the offering price and other selling terms may be changed by the underwriters. Sales of shares made outside of the United States may be made by affiliates of the underwriters.

The underwriters have an option to buy up to additional shares of common stock from us. The underwriters have 30 days from the date of this prospectus supplement to exercise this option. If any shares are purchased with this option, the underwriters will purchase shares in approximately the same proportion as shown in the table above. If any additional shares of common stock are purchased, the underwriters will offer the additional shares on the same terms as those on which the shares are being offered.

The underwriting fee is equal to the public offering price per share of common stock less the amount paid by the underwriters to us per share of common stock. The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

	Without option exercise	With full option exercise
Per Share	\$	\$
Total	\$	\$

We estimate that the total expenses of this offering to be paid by us, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding the underwriting discounts and commissions, will be approximately \$ _____ after giving effect to the reimbursements described below. We have agreed to reimburse the underwriters for expenses relating to the qualification of this offering with the Financial Industry Regulatory Authority up to \$10,000. The underwriters have agreed to reimburse us for certain fees and expenses related to this offering.

A prospectus supplement in electronic format may be made available on the web sites maintained by one or more

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underwriters, or selling group members, if any, participating in the offering. The underwriters may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters and selling group members that may make Internet distributions on the same basis as other allocations.

We have agreed that we will not (i) issue, pledge, sell or otherwise transfer or dispose of, directly or indirectly, or file with the Securities and Exchange Commission a registration statement under the Securities Act relating to, any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock, or (ii) enter into any swap or other arrangement that transfers in whole or in part, any of the economic consequences of ownership of our common stock or any such other securities (regardless of whether any such transaction is to be settled by delivery of common stock or such other securities, in cash or otherwise) in each case without the prior written consent of J.P. Morgan Securities LLC for a period of 60 days after the date of this prospectus supplement, other than (A) the shares to be sold hereunder, (B) any shares of common stock upon the exercise of any option or warrant or the conversion of a security outstanding or under any employee benefit plans, (C) the vesting of or removal or lapse of restrictions on restricted stock or other awards under existing employee benefits plans or agreements in accordance with the terms of such plans or agreements, (D) any options, restricted stock and other awards granted under, or any shares of common stock issued upon the exercise of options granted under, existing employee benefits plans, (E) any registration statement on Form S-8 or a successor form thereto in respect of securities offered pursuant to the terms of existing employee benefits plans or agreements, (F) any issuances of options, restricted stock units or other awards to newly hired employees, provided such awards do not vest or are not exercisable during such 60-day period, (G) any registration statements covering sales of securities pursuant to the terms of the registration rights and lock-up agreements dated as of November 12, 2014 with certain former stockholders of Lumara Health Inc., (H) a refinancing or amendment to the terms of our currently existing debt obligations, including by way of exchange of our 2.5% convertible senior notes due February 15, 2019 for newly issued securities that may be convertible into or exchangeable for common stock, and (I) the settlement in common stock of the conversion of our 2.5% convertible senior notes due February 15, 2019 pursuant to the terms thereof.

Our directors and executive officers have entered into lock-up agreements with the underwriters prior to the commencement of this offering pursuant to which each of these persons or entities, with limited exceptions, for a period of 60 days after the date of this prospectus supplement, may not, without the prior written consent of J.P. Morgan Securities LLC, (1) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of our common stock or any securities convertible into or exercisable or exchangeable for our common stock, or publicly disclose the intention to make any offer, sale, pledge or disposition, or (2) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the common stock or such other securities, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of common stock or such other securities, in cash or otherwise, or (3) make any demand for or exercise any right with respect to, the registration of any shares of our common stock or any security convertible into or exercisable or exchangeable for our common stock.

We have agreed to indemnify the several underwriters and their controlling persons against certain liabilities, including liabilities under the Securities Act of 1933.

Our common stock trades on The NASDAQ Global Select Market under the trading symbol **AMAG**.

In connection with this offering, the underwriters may engage in stabilizing transactions, which involves making bids for, purchasing and selling shares of common stock in the open market for the purpose of preventing or retarding a decline in the market price of the common stock while this offering is in progress. These stabilizing transactions may include making short sales of the common stock, which involves the sale by the underwriters of a greater number of shares of common stock than they are required to purchase in this offering, and purchasing shares of common stock on the open market to cover positions created by short sales. Short sales may be covered shorts, which are short positions in an amount not greater than the underwriters' option referred to above, or may be naked shorts, which are short positions in excess of that amount.

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The underwriters may close out any covered short position either by exercising their option to purchase additional shares, in whole or in part, or by purchasing shares in the open market. In making this determination, the underwriters will consider, among other things, the price of shares available for purchase in the open market compared to the price at which the underwriters may purchase shares through the option referred to above. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market that could adversely affect investors who purchase in this offering. To the extent that the underwriters create a naked short position, they will

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purchase shares in the open market to cover the position.

The underwriters have advised us that, pursuant to Regulation M of the Securities Act of 1933, they may also engage in other activities that stabilize, maintain or otherwise affect the price of the common stock, including the imposition of penalty bids. This means that if the representatives of the underwriters purchase common stock in the open market in stabilizing transactions or to cover short sales, the representatives can require the underwriters that sold those shares as part of this offering to repay the underwriting discount received by them.

These activities may have the effect of raising or maintaining the market price of the common stock or preventing or retarding a decline in the market price of the common stock, and, as a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. If the underwriters commence these activities, they may discontinue them at any time. The underwriters may carry out these transactions on The NASDAQ Global Select Market, in the over-the-counter market or otherwise.

In addition, in connection with this offering certain of the underwriters (and selling group members) may engage in passive market making transactions in our common stock on The NASDAQ Global Select Market prior to the pricing and completion of this offering. Passive market making consists of displaying bids on The NASDAQ Global Select Market no higher than the bid prices of independent market makers and making purchases at prices no higher than these independent bids and effected in response to order flow. Net purchases by a passive market maker on each day are generally limited to a specified percentage of the passive market maker's average daily trading volume in the common stock during a specified period and must be discontinued when such limit is reached. Passive market making may cause the price of our common stock to be higher than the price that otherwise would exist in the open market in the absence of these transactions. If passive market making is commenced, it may be discontinued at any time.

Certain of the underwriters and their affiliates have provided in the past to us and our affiliates and may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions. In addition, from time to time, certain of the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future.

Selling Restrictions

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus supplement and accompanying prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus supplement and accompanying prospectus may not be offered or sold, directly or indirectly, nor may this prospectus supplement and accompanying prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus supplement and accompanying prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus supplement and accompanying prospectus. This prospectus supplement and accompanying prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus supplement and accompanying prospectus in any jurisdiction in which such an offer or solicitation is unlawful.

Dubai International Financial Centre

This prospectus supplement and accompanying prospectus relates to an Exempt Offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority (DFSA). This prospectus supplement and accompanying prospectus is intended for distribution only to persons of a type specified in the Offered Securities Rules of the DFSA. It must

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not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus supplement or accompanying prospectus or taken steps to verify the information set forth herein and has no responsibility for the prospectus supplement or accompanying prospectus. The securities to which this prospectus supplement and accompanying prospectus relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the securities offered should conduct their own due diligence on the securities. If you do not understand the contents of this prospectus supplement or accompanying prospectus, you should consult an authorized financial advisor.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), from and including the date on which the European Union Prospectus Directive (the EU Prospectus Directive) was implemented in that Relevant Member State (the Relevant Implementation Date) an offer of securities described in this prospectus supplement and accompanying prospectus may not be made to the public in that Relevant Member State prior to the publication of a prospectus supplement and accompanying prospectus in relation to the shares which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the EU Prospectus Directive, except that, with effect from and including the Relevant Implementation Date, an offer of securities described in this prospectus supplement and accompanying prospectus may be made to the public in that Relevant Member State at any time:

- to any legal entity which is a qualified investor as defined under the EU Prospectus Directive;
- to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150 natural or legal persons (other than qualified investors as defined in the EU Prospectus Directive); or
- in any other circumstances falling within Article 3(2) of the EU Prospectus Directive, provided that no such offer of securities described in this prospectus supplement and accompanying prospectus shall result in a requirement for the publication by us of a prospectus pursuant to Article 3 of the EU Prospectus Directive.

For the purposes of this provision, the expression an offer of securities to the public in relation to any securities in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the securities to be offered so as to enable an investor to decide to purchase or subscribe for the securities, as the same may be varied in that Member State by any measure implementing the EU Prospectus Directive in that Member State. The expression EU Prospectus Directive means Directive 2003/71/EC (and any amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State) and includes any relevant implementing measure in each Relevant Member State, and the expression 2010 PD Amending Directive means Directive 2010/73/EU.

France

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This offering document has not been prepared in the context of a public offering of securities in France (*offre au public*) within the meaning of Article L.411-1 of the French *Code monétaire et financier* and Articles 211-1 et seq. of the *Autorité des marchés financiers* (AMF) regulations and has therefore not been submitted to the AMF for prior approval or otherwise, and no prospectus has been prepared in relation to the securities.

The securities have not been offered or sold and will not be offered or sold, directly or indirectly, to the public in France, and neither this offering document nor any other offering material relating to the securities has been distributed or caused to be distributed or will be distributed or caused to be distributed to the public in France, except only to persons licensed to provide the investment service of portfolio management for the account of third parties and/or to qualified investors (as defined in Article L.411-2, D.411-1 and D.411-2 of the French *Code monétaire et financier*) and/or to a limited circle of investors (as defined in Article L.411-2 and D.411-4 of the French *Code monétaire et financier*) on the condition that no such offering document nor any other offering material relating to the securities shall be delivered by them to any person or reproduced (in whole or in part). Such qualified investors and the limited circle of investors referred to in Article L.411-2II2 are notified that they must act in that connection for their own account in accordance with the terms set out by Article L.411-2

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of the French *Code monétaire et financier* and by Article 211-3 of the AMF Regulations and may not re-transfer, directly or indirectly, the securities in France, other than in compliance with applicable laws and regulations and, in particular, those relating to a public offering (which are, in particular, embodied in Articles L.411-1, L.412-1 and L.621-8 et seq. of the French *Code monétaire et financier*).

You are hereby notified that in connection with the purchase of these securities, you must act for your own account in accordance with the terms set out by Article L.411-2 of the French *Code monétaire et financier* and by Article 211-3 of the AMF Regulations and may not re-transfer, directly or indirectly, the securities in France, other than in compliance with applicable laws and regulations and, in particular, those relating to a public offering (which are, in particular, embodied in Articles L.411-1, L.411-2, L.412-1 and L.621-8 et seq. of the French *Code monétaire et financier*).

Hong Kong

The shares have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to professional investors as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong and any rules made under that Ordinance; or (b) in other circumstances which do not result in the document being a prospectus as defined in the Companies Ordinance (Cap. 32) of Hong Kong or which do not constitute an offer to the public within the meaning of that Ordinance.

No advertisement, invitation or document, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) has been issued or will be issued in Hong Kong or elsewhere, other than with respect to the shares which are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors within the meaning of the Securities and Futures Ordinance and any rules made under that Ordinance.

WARNING

The contents of this document have not been reviewed by any regulatory authority in Hong Kong. You are advised to exercise caution in relation to the offer. If you are in any doubt about any of the contents of this document, you should obtain independent professional advice.

Italy

The offering of the shares has not been registered with the *Commissione Nazionale per le Società e la Borsa* (CONSOB), in accordance with Italian securities legislation. Accordingly, the shares may not be offered or sold, and copies of this offering document or any other document relating to the shares may not be distributed in Italy except to Qualified Investors, as defined in Article 34-ter, subsection 1, paragraph b of CONSOB Regulation no. 11971 of May 14, 1999, as amended (the Issuers' Regulation), or in any other circumstance where an express exemption to comply with public offering restrictions provided by Legislative Decree no. 58 of February 24, 1998 (the Consolidated Financial Act) or Issuers' Regulation applies, including those provided for under Article 100 of the Finance Law and Article 34-ter of the Issuers' Regulation; *provided, however*, that any such offer or sale of the shares or distribution of copies of this offering document or any other document

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relating to the shares in Italy must (i) be made in accordance with all applicable Italian laws and regulations; (ii) be conducted in accordance with any relevant limitations or procedural requirements that CONSOB may impose upon the offer or sale of the shares; and (iii) be made only by (a) banks, investment firms or financial companies enrolled in the special register provided for in Article 107 of Legislative Decree no. 385 of September 1, 1993, to the extent duly authorized to engage in the placement and/or underwriting of financial instruments in Italy in accordance with the Consolidated Financial Act and the relevant implementing regulations; or (b) foreign banks or financial institutions (the controlling shareholding of which is owned by one or more banks located in the same EU Member State) authorized to place and distribute securities in the Republic of Italy pursuant to Articles 15, 16 and 18 of the Banking Act, in each case acting in compliance with all applicable laws and regulations.

Japan

The shares have not been and will not be registered under the Financial Instruments and Exchange Law of Japan (the Financial Instruments and Exchange Law). Accordingly, no resident of Japan may participate in the offering of the shares, and

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each underwriter has agreed that it will not offer or sell any shares, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Law and any other applicable laws, regulations and ministerial guidelines of Japan.

Singapore

The offer or invitation which is the subject of this document is only allowed to be made to the persons set out herein. Moreover, this document is not a prospectus as defined in the Securities and Futures Act (Chapter 289) of Singapore (the "SFA"), and, accordingly, statutory liability under the SFA in relation to the content of the document will not apply.

As this document has not been and will not be lodged with or registered as a document by the Monetary Authority of Singapore, this document and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than: (i) to an institutional investor under Section 274 of the SFA; (ii) to a relevant person, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA; or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person who is:

(a) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

(b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor,

shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest in that trust shall not be transferable for six months after that corporation or that trust has acquired the shares under Section 275 of the SFA except:

(1) to an institutional investor under Section 274 of the SFA or to a relevant person defined in Section 275(2) of the SFA, or to any person pursuant to an offer that is made on terms that such shares, debentures and units of shares and debentures of that corporation or such rights and interest in that trust are acquired at a consideration of not less than S\$200,000 (or its equivalent foreign currency) for each transaction, whether such amount is to be paid for in cash or by exchange of securities or other assets;

(2) where no consideration is given for the transfer; or

(3) by operation of law.

By accepting this document, the recipient hereof represents and warrants that he or she is entitled to receive such report in accordance with the restrictions set forth above and agrees to be bound by the limitations contained herein. Any failure to comply with these limitations may constitute a violation of law.

Spain

This offer of our shares has not been and will not be registered with the Spanish National Securities Market Commission (*Comisión Nacional del Mercado de Valores*, or CNMV), and, therefore, none of our shares may be offered, sold or distributed in any manner, nor may any resale of the shares be carried out in Spain except in circumstances which do not constitute a public offer of securities in Spain or are exempted from the obligation to publish a prospectus, as set forth in Spanish Securities Market Act (*Ley 24/1988, de 28 de julio, del Mercado de Valores*) and Royal Decree 1310/2005, of 4 November, and other applicable regulations, as amended from time to time, or otherwise without complying with all legal and regulatory requirements in relation thereto. Neither the prospectus supplement or the accompanying prospectus, nor any offering or advertising materials relating to our shares have been or will be registered with the CNMV, and, therefore, they are not intended for the public offer of our shares in Spain.

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Switzerland

The shares may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange (SIX) or on any other stock exchange or regulated trading facility in Switzerland.

This document has been prepared without regard to the disclosure standards for issuance prospectuses under article 652a or article 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under article 27 et seq. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, the company or the shares have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of shares will not be supervised by, the Swiss Financial Market Supervisory Authority, FINMA, and the offer of shares has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes (CISA). The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of shares.

United Arab Emirates

This offering has not been approved or licensed by the Central Bank of the United Arab Emirates (UAE), Securities and Commodities Authority of the UAE and/or any other relevant licensing authority in the UAE, including any licensing authority incorporated under the laws and regulations of any of the free zones established and operating in the territory of the UAE, in particular the Dubai Financial Services Authority (DFSA), a regulatory authority of the Dubai International Financial Centre (DIFC). This offering does not constitute a public offer of securities in the UAE, DIFC and/or any other free zone in accordance with the Commercial Companies Law, Federal Law No 8 of 1984 (as amended), DFSA Offered Securities Rules and Nasdaq Dubai Listing Rules, accordingly, or otherwise. The shares may not be offered to the public in the UAE and/or any of the free zones.

The shares may be offered and issued only to a limited number of investors in the UAE or any of its free zones who qualify as sophisticated investors under the relevant laws and regulations of the UAE or the free zone concerned.

United Kingdom

Each underwriter has represented and agreed that:

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(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (FSMA)) received by it in connection with the issue or sale of the shares in circumstances in which Section 21(1) of the FSMA does not apply to us; and

(b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares in, from or otherwise involving the United Kingdom.

In connection with this offering, the underwriters are not acting for anyone other than us and will not be responsible to anyone other than us for providing the protections afforded to its clients nor for providing advice in relation to this offering.

This document is for distribution only to persons who (i) have professional experience in matters relating to investments falling within Article 19(5) of the FSMA 2000 (Financial Promotion) Order 2005 (as amended, the Financial Promotion Order), (ii) are persons falling within Article 49(2)(a) to (d) (high net worth companies, unincorporated associations etc) of the Financial Promotion Order, (iii) are outside the United Kingdom, or (iv) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of Section 21 of FSMA) in connection with the issue or sale of any securities may otherwise lawfully be communicated or caused to be communicated (all such persons together being referred to as relevant persons). This document is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this document relates is available only to relevant persons and will be engaged in only with relevant persons.

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LEGAL MATTERS

Certain legal matters relating to the shares of common stock offered hereby will be passed upon for us by Goodwin Procter LLP, Boston, Massachusetts. Certain legal matters will be passed upon for the underwriters by Davis Polk & Wardwell LLP, New York, New York.

EXPERTS

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Annual Report on Internal Control over Financial Reporting) incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2014 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The audited consolidated balance sheets of Lumara Health Inc. (formerly named K-V Pharmaceutical Company) as of March 31, 2014 and 2013 and the related consolidated statements of operations, changes in stockholders' equity (deficit) and cash flows for the period September 16, 2013 to March 31, 2014, and the period April 1, 2013 to September 15, 2013, and the year ended March 31, 2013 incorporated by reference in this prospectus, have been so incorporated in reliance on the report of BDO USA, LLP, an independent auditor, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

The audited consolidated balance sheets of Lumara Health Inc. (formerly named K-V Pharmaceutical Company) as of March 31, 2012 and 2011 and the related consolidated statements of operations, comprehensive loss, changes in shareholders' deficit and cash flows for each of the three years in the period ended March 31, 2012 and management's assessment of the effectiveness of internal control over financial reporting as of March 31, 2012 incorporated by reference in this prospectus, have been so incorporated in reliance on the reports of BDO USA, LLP, an independent registered public accounting firm (the report on the financial statements contains an explanatory paragraph regarding the Company's ability to continue as a going concern), incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We file reports, proxy statements and other information with the SEC. You may read and copy the reports, proxy statements and other information that we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for information about the operation of its Public Reference Room and for its prescribed rates to obtain copies of such material. The SEC also maintains an Internet site that contains reports, proxy and information statements and other information regarding registrants, like us, that file electronically with the SEC. The address of the SEC's Internet site is <http://www.sec.gov>. Our Internet site is <http://www.amagpharma.com>. Information contained on our Internet site is not a part of this prospectus.

This prospectus provides you with a general description of the common stock being registered. This prospectus is part of a registration statement that we have filed with the SEC. To see more detail, you should read the registration statement and the exhibits and schedules filed with, or

incorporated by reference into, our registration statement.

This registration statement, including the exhibits contained or incorporated by reference therein, can be read at the SEC web site or at the SEC office referred to above. Any statement made or incorporated by reference in this prospectus concerning the contents of any contract, agreement or other document is only a summary of the actual contract, agreement or other document. If we have filed or incorporated by reference any contract, agreement or other document as an exhibit to the registration statement, you should read the exhibit for a more complete understanding of the document or matter involved. Each statement regarding a contract, agreement or other document is qualified in its entirety by reference to the actual document.

DOCUMENTS INCORPORATED BY REFERENCE

The SEC allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring you to those documents. The information we incorporate by reference is considered part of this prospectus. Statements in this prospectus regarding the contents of any contract or other document may not be complete. You should refer to the copy of the contract or other document filed as an exhibit to the registration statement. Later information filed with the SEC will update and supersede information we have included or incorporated by reference in this

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prospectus.

We incorporate by reference the documents listed below, which have been filed with the SEC (other than Current Reports or portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K):

1. Our Annual Report on Form 10-K for the year ended December 31, 2014, as filed on February 18, 2015;
2. Our annual Proxy Statement on Schedule 14A relating to our annual meeting of stockholders, filed with the SEC on April 18, 2014 (with respect to those portions incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2013);
3. Our Current Report on Form 8-K as filed on November 12, 2014 (solely other than with respect to Exhibit 99.1 thereto), as amended on January 12, 2015 and as further amended on February 24, 2015, as well as our Current Report on Form 8-K as filed on January 9, 2015;
4. The description of our common stock, which is registered under Section 12 of the Exchange Act, contained under Item 8.01 of our Current Report on Form 8-K, as filed on August 1, 2013, including any amendment or report filed for the purpose of updating such descriptions; and
5. The description of our Series A Junior Participating Preferred Stock Purchase Rights, or the rights, contained under Item 3.03 of our Current Report on Form 8-K, as filed on September 4, 2009, and in our registration statement on Form 8-A registering the rights under Section 12 of the Exchange Act, filed with the SEC on September 4, 2009, including without limitation any amendments or reports filed for the purpose of updating that description, including the amendment described under Item 3.03 of our Current Report on Form 8-K, as filed on September 29, 2014, and in our registration statement on Form 8-A registering the rights under Section 12 of the Exchange Act, filed with the SEC on September 29, 2014.

We also incorporate by reference any filings made after the date of effectiveness of the registration statement with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, except as to any portion of any future report or document that is not deemed filed under such provisions, until the offering of the securities made by this prospectus is completed or terminated.

We will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon the written or oral request of that person, a copy of any and all of the information that has been incorporated in this prospectus by reference other than exhibits unless those exhibits are specifically incorporated by reference into the documents. Requests for these copies should be directed to our investor relations department at the following address and telephone number: AMAG Pharmaceuticals, Inc., 1100 Winter Street, Waltham, Massachusetts, 02451; (617) 498-3300.

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PROSPECTUS

**Common Stock
Preferred Stock
Debt Securities
Warrants
Units**

By this prospectus, we or any selling stockholder may offer and sell from time to time, in one or more offerings, our common stock, preferred stock, debt securities, warrants, or any combination thereof described in this prospectus. The warrants may be convertible into or exercisable or exchangeable for common stock or preferred stock, the preferred stock may be convertible into or exchangeable for common stock and the debt securities may be convertible into or exchangeable for common stock or preferred stock. Each time securities are offered pursuant to this prospectus, we will indicate the particular securities being offered and their specific terms in a supplement to this prospectus. In each case, we will describe the type and amount of securities being offered, the public offering price, the net proceeds we expect to receive and the other terms of the offering.

You should carefully read this prospectus, any prospectus supplement and any free writing prospectus, as well as any documents incorporated in any of the foregoing by reference, before you invest in our securities. This prospectus may not be used to sell our securities unless accompanied by a prospectus supplement. The prospectus supplement or any related free writing prospectus may also add to, update, supplement or clarify information contained in this prospectus.

We or any selling stockholder may offer and sell our securities to or through one or more agents, underwriters, dealers or other third parties or directly to one or more purchasers on a continuous or delayed basis. If agents, underwriters or dealers are used to sell our securities, we or any selling stockholder will name them and describe their compensation in a prospectus supplement. The price to the public of our securities and the net proceeds we expect to receive from the sale of such securities will also be set forth in a prospectus supplement. We will not receive any proceeds from the sale of securities by selling stockholders.

Our common stock is listed on The NASDAQ Global Select Market under the symbol AMAG.

INVESTING IN OUR SECURITIES INVOLVES RISKS. YOU SHOULD REVIEW CAREFULLY THE RISKS AND UNCERTAINTIES DESCRIBED UNDER THE HEADING RISK FACTORS BEGINNING ON PAGE 5 AND CONTAINED IN THE APPLICABLE PROSPECTUS SUPPLEMENT AND ANY RELATED

**FREE WRITING PROSPECTUS, AND UNDER SIMILAR HEADINGS IN THE OTHER DOCUMENTS
THAT ARE INCORPORATED BY REFERENCE HEREIN.**

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or the accuracy of this prospectus. Any representation to the contrary is a criminal offense.

Our principal executive office is at 1100 Winter Street, Waltham, Massachusetts 02451, and our telephone number is (617) 498-3300.

The date of this prospectus is February 24, 2015.

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ABOUT THIS PROSPECTUS

This prospectus is part of an automatic shelf registration statement that we filed with the Securities and Exchange Commission, or the SEC, as a well-known seasoned issuer as defined in Rule 405 under the Securities Act of 1933, as amended, or the Securities Act. Under this shelf registration, we and/or selling stockholders may offer shares of our common stock and preferred stock, various series of warrants to purchase common stock or preferred stock, debt securities, or any combination thereof, from time to time in one or more offerings. This prospectus only provides you with a general description of the securities we and/or selling stockholders may offer. Each time we and/or selling stockholders offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will contain more specific information about the specific terms of the offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. This prospectus may not be used to sell our securities unless accompanied by a prospectus supplement. Each such prospectus supplement and any free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in documents incorporated by reference into this prospectus. **We urge you to carefully read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the headings Where You Can Find More Information and Documents Incorporated by Reference before you invest in our securities.**

We have not authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus or in any related prospectus supplement or free writing prospectus prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We take no responsibility for, and can provide no assurances as to the reliability of, any information not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus that we or a selling stockholder may authorize to be provided to you. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading Where You Can Find More Information.

References in this prospectus to the terms AMAG Pharmaceuticals, company, we, our or us or other similar terms means AMAG Pharmaceuticals, Inc.

Feraheme is a registered trademark of AMAG Pharmaceuticals, Inc., *MuGard* is a registered trademark of PlasmaTech Biopharmaceuticals, Inc. (formerly known as Access Pharmaceuticals, Inc.) (PlasmaTech), *Makena* is a registered trademark of Lumara Health Inc. and *Lumara Health* is a registered trademark of Lumara Health Inc. Unless the context suggests otherwise, references to *Feraheme* refer to both *Feraheme* (the trade name for ferumoxytol in the U.S. and Canada) and *Rienso* (the trade name for ferumoxytol in the EU and Switzerland).

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Any statements in this prospectus or the applicable prospectus supplement or free writing prospectus, including the documents that we incorporate by reference herein, about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities

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Exchange Act of 1934, as amended, or the Exchange Act. You can identify these forward-looking statements by the use of words or phrases such as believe, may, could, will, estimate, continue, anticipate, intend, seek, plan, expect, potential, predict, projected, or similar words. The factors that could cause actual results to differ materially from those indicated in the forward-looking statements are risks and uncertainties inherent in our business including, without limitation (1) our dependence on the success of our product portfolio and maintaining commercialization of our products, including *Makena* and *Feraheme*; (2) intense competition, including from generic products; (3) maintaining the proprietary nature of our technology; (4) our reliance on third parties in our business, including to manufacture our products, conduct our clinical trials and undertake distribution of our products; (5) our reliance on and the extent of reimbursement from third parties for the use of our products, including *Makena*'s high Medicaid reimbursement concentration; (6) the impact of *Makena*'s loss of orphan drug exclusivity in February 2018, competition from compounded pharmacies and our ability to implement *Makena*'s lifecycle management program; (7) perceptions related to pricing and access for *Makena*; (8) post-marketing commitments for *Makena*; (9) limitations on *Feraheme* sales given its narrow CKD indication and the potential impact on sales of any actual or perceived safety problems; (10) our ability to receive regulatory approval for *Feraheme* in the broader IDA indication and *Feraheme*'s ability to compete in such market even if regulatory approval is pursued and received; (11) our customer concentration, especially with regard to *Feraheme*; (12) the impact of the termination of our arrangement with Takeda and our commercialization efforts, if any and including cessation thereof, for *Feraheme* outside of the U.S., including the impact on U.S. sales; (13) our level of indebtedness, access to sufficient capital and availability of net operating loss carryforwards and other tax assets; (14) the risk of potential litigation, including securities and product liability claims; and (15) other risks identified in our filings with the U.S. Securities and Exchange Commission (SEC), including our Annual Report on Form 10-K for the fiscal year ended December 31, 2014 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 the two paragraphs above 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.

You should understand that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

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Although we believe that the expectations reflected in our forward-looking statements are reasonable, we cannot guarantee future results, events, levels of activity, performance or achievement. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We undertake no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, unless required by law. Before deciding to purchase our securities, you should carefully consider the risk factors incorporated herein by reference, in addition to the other information set forth in this prospectus, any accompanying prospectus supplement, any free writing prospectus and in the documents incorporated by reference.

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OUR COMPANY

This business overview highlights information contained in certain documents incorporated by reference into this prospectus. This business overview does not contain all of the information that you should consider before investing in our securities. You should read the entire prospectus carefully, including the Risk Factors section and the financial statements and the notes to those statements incorporated herein by reference, before making an investment decision.

AMAG Pharmaceuticals, Inc., a Delaware corporation, was founded in 1981. We are a specialty pharmaceutical company with a focus on maternal health, anemia and cancer supportive care. We currently market Makena® (hydroxyprogesterone caproate injection), Feraheme® (ferumoxytol) Injection for Intravenous use to treat iron deficiency anemia (IDA) and MuGard® Mucoadhesive Oral Wound Rinse, for the management of oral mucositis. The primary goal of our company, including our maternal health division, Lumara Health™, is to bring to market therapies that provide clear benefits and improve patients' lives.

Currently, our two primary sources of revenue are from the sale of *Makena* and *Feraheme*. On November 12, 2014, we acquired Lumara Health (the Lumara Acquisition), a privately-held pharmaceutical company specializing in women's health, for approximately \$600.0 million in upfront cash consideration (subject to finalization of certain adjustments related to Lumara Health's financial position at the time of closing, including adjustments related to working capital, net debt and transaction expenses as set forth in the definitive agreement with Lumara Health) and 3.2 million unregistered shares of our common stock having a fair value of \$112.0 million at the time of closing. In connection with the acquisition of Lumara Health, we acquired Lumara Health's marketed drug product, *Makena*, a progestin indicated to reduce the risk of preterm birth in women with a singleton pregnancy who have a history of singleton spontaneous preterm birth. We sell *Makena* to specialty pharmacies and distributors, who, in turn, sell *Makena* to health care providers, hospitals, government agencies and integrated delivery systems. The Lumara Acquisition is described in greater detail in our Current Report on Form 8-K filed on November 12, 2014, as amended on January 12, 2015 and as further amended on February 24, 2015.

Feraheme was approved for marketing in the U.S. in June 2009 by the U.S. Food and Drug Administration (FDA) for use as an intravenous iron replacement therapy for the treatment of IDA in adult patients with chronic kidney disease. We began selling *Feraheme* in the U.S. in July 2009 through our own commercial organization, including a specialty sales force. We sell *Feraheme* to authorized wholesalers and specialty distributors, who, in turn, sell *Feraheme* to healthcare providers who administer *Feraheme* primarily within hospitals, hematology and oncology centers, and nephrology clinics.

On June 6, 2013, we entered into a License Agreement with PlasmaTech under which we acquired the U.S. commercial rights to *MuGard* (the MuGard License Agreement). *MuGard* is indicated for the management of oral mucositis/stomatitis (that may be caused by radiotherapy and/or chemotherapy) and all types of oral wounds (mouth sores and injuries), including aphthous ulcers/canker sores and traumatic ulcers, such as those caused by oral surgery or ill-fitting dentures or braces. Under the MuGard License Agreement, we obtained an exclusive, royalty-bearing license, with the right to grant sublicenses, to certain intellectual property rights, including know-how, patents and trademarks, to use, import, offer for sale, sell, manufacture and commercialize *MuGard* in the U.S. and its territories. In addition, PlasmaTech has assigned us all of its right, title and interest in *MuGard*-related internet and social media outlets and other sales, marketing and promotional materials currently owned or controlled by PlasmaTech. We sell *MuGard* to wholesalers and specialty and retail pharmacies.

Our common stock trades on The NASDAQ Global Select Market under the trading symbol AMAG.

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Our principal offices are located at 1100 Winter Street, Waltham, Massachusetts 02451, and our telephone number is (617) 498-3300. Our website address is *www.amagpharma.com*. Information found on, or accessible through, our website is not a part of, and is not incorporated into, this prospectus, and you should not consider it part of this prospectus or part of any prospectus supplement. Our website address is included in this document as an inactive textual reference only.

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RISK FACTORS

An investment in our securities involves a high degree of risk. In addition to the other information included in, or incorporated by reference into, this prospectus, the applicable prospectus supplement and any related free writing prospectus, you should carefully consider the risk factors incorporated by reference to our Annual Report on Form 10-K for the year ended December 31, 2014, as the same may be updated from time to time by our future filings under the Exchange Act, when determining whether or not to purchase the securities offered under this prospectus and the prospectus supplement.

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DESCRIPTION OF SECURITIES

We and/or any selling stockholder may offer shares of our common stock and preferred stock, various series of warrants to purchase common stock or preferred stock, debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt, or any combination thereof from time to time in one or more offerings under this prospectus at prices and on terms to be determined at the time of any offering. This prospectus provides you with a general description of the securities we and/or any selling stockholder may offer. Each time we and/or any selling stockholder offer a type or series of securities under this prospectus, we will provide a prospectus supplement and/or free writing prospectus that will describe the specific amounts, prices and other important terms of the securities.

Common Stock. We and/or any selling stockholder may issue and/or sell, as applicable, shares of our common stock from time to time. Holders of shares of our common stock are entitled to one vote for each share held of record on all matters to be voted on by stockholders and do not have cumulative voting rights. Subject to the preferences that may be applicable to any then outstanding preferred stock, the holders of our outstanding shares of common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds. In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock.

Preferred Stock. We may issue shares of our preferred stock from time to time, in one or more series. Our board of directors will determine the rights, preferences and privileges of the shares of each wholly unissued series, and any qualifications, limitations or restrictions thereon, including dividend rights, conversion rights, preemptive rights, terms of redemption or repurchase, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of any series. Convertible preferred stock will be convertible into our common stock or exchangeable for other securities. Conversion may be mandatory or at the holder's option and would be at prescribed conversion rates.

If we sell any series of preferred stock under this prospectus, we will fix the rights, preferences and privileges of the preferred stock of such series, as well as any qualifications, limitations or restrictions thereon, in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of that series of preferred stock. We urge you to read the applicable prospectus supplement and any free writing prospectus that we may authorize to be provided to you related to the series of preferred stock being offered, as well as the complete certificate of designation that contains the terms of the applicable series of preferred stock.

Warrants. We may issue warrants for the purchase of common stock and/or preferred stock in one or more series. We may issue warrants independently or together with common stock and/or preferred stock, and the warrants may be attached to or separate from these securities. We urge you to read the applicable prospectus supplement and any free writing prospectus that we may authorize to be provided to you related to the particular series of warrants being offered, as well as the complete warrant agreements and warrant certificates that contain the terms of the warrants. Forms of the warrant agreements and forms of warrant certificates containing the terms of the warrants being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

We will evidence each series of warrants by warrant certificates that we will issue. Warrants may be issued under an applicable warrant agreement that we enter into with a warrant agent. We will indicate the name and address of the warrant agent, if applicable, in the prospectus

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supplement relating to the particular series of warrants being offered.

Units. We may issue, in one or more series, units consisting of common stock, preferred stock, and/or warrants for the purchase of common stock and/or preferred stock in any combination. We urge you to read the applicable prospectus supplement and any free writing prospectus that we may authorize to be provided to you related to the series of units being offered, as well as the complete unit agreement that contains the terms of the units. We will file as exhibits to the

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registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of unit agreement and any supplemental agreements that describe the terms of the series of units we are offering before the issuance of the related series of units.

We will evidence each series of units by unit certificates that we will issue. Units may be issued under a unit agreement that we enter into with a unit agent. We will indicate the name and address of the unit agent, if applicable, in the prospectus supplement relating to the particular series of units being offered.

Debt Securities. We may issue debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. In this prospectus, we have summarized certain general features of the debt securities. We urge you, however, to read the applicable prospectus supplement and any free writing prospectus that we may authorize to be provided to you related to the particular series of debt securities being offered, as well as the complete indenture that contains the terms of the debt securities. We will file as exhibits to the registration statement of which this prospectus is a part, the form of indenture and any supplemental agreements that describe the terms of the series of debt securities we are offering before the issuance of the related series of debt securities.

We may evidence each series of debt securities we will issue by an indenture that we enter into with a trustee. We will indicate the name and address of the trustee, if applicable, in the prospectus supplement relating to the particular series of debt securities being offered.

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**RATIO OF EARNINGS TO COMBINED FIXED CHARGES
AND PREFERENCE STOCK DIVIDENDS**

Our ratio of earnings to fixed charges for recently completed fiscal years and any required interim periods will be specified in a prospectus supplement or in a document that we file with the SEC and incorporate by reference in the future.

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USE OF PROCEEDS

Unless otherwise described in a prospectus supplement or related free writing prospectus, we intend to use the net proceeds from the sale of the offered securities for general corporate purposes, which may include, but are not limited to, working capital, strategic acquisitions and other potential business development activities, ongoing research and development activities and capital expenditures. Pending any specific utilization, the proceeds from the sale of the offered securities may be invested in a manner designed to ensure levels of liquidity which correspond to our current and foreseeable cash needs. Such investments may include, but may not be limited to, short-term investments, including government bonds, or other interest-bearing investments. From time to time, we may engage in additional public or private financings of a character and amount which we may deem appropriate. Unless otherwise set forth in a prospectus supplement, we will not receive any proceeds from the sale of securities by any selling stockholder.

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SELLING STOCKHOLDERS

Selling stockholders are persons or entities that, directly or indirectly, have acquired or will from time to time acquire from us, our securities. Such selling stockholders may be parties to registration rights agreements with us, or we otherwise may have agreed or will agree to register their securities for resale. The initial purchasers of our securities, as well as their transferees, pledges, donees or successors, all of whom we refer to as selling stockholders, may from time to time offer and sell our securities pursuant to this prospectus and any applicable prospectus supplement.

The applicable prospectus supplement will set forth the name of each of the selling stockholders and the number of securities beneficially owned by such selling stockholder that are covered by such prospectus supplement. The applicable prospectus supplement will also disclose whether any of the selling stockholders has held any position or office with, has been employed by or otherwise has had a material relationship with us during the three years prior to the date of the applicable prospectus supplement.

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PLAN OF DISTRIBUTION

We and/or any selling stockholder may sell our securities from time to time in one or more transactions. We and/or any selling stockholder may sell our securities to or through agents, underwriters, dealers, remarketing firms or other third parties or directly to one or more purchasers or through a combination of any of these methods. In some cases, we and/or any selling stockholder or dealers acting with us and/or any selling stockholder or on behalf of us and/or any selling stockholder may also purchase our securities and reoffer them to the public. We and/or any selling stockholder may also offer and sell, or agree to deliver, our securities pursuant to, or in connection with, any option agreement or other contractual arrangement.

Agents whom we designate may solicit offers to purchase our securities.

- We and/or any selling stockholder will name any agent involved in offering or selling our securities, and disclose any commissions that we will pay to the agent, in the applicable prospectus supplement.
- Unless we and/or any selling stockholder indicate otherwise in the applicable prospectus supplement, agents will act on a best efforts basis for the period of their appointment.
- Agents may be deemed to be underwriters under the Securities Act of any of our securities that they offer or sell.

We and/or any selling stockholder may use an underwriter or underwriters in the offer or sale of our securities.

- If we and/or any selling stockholder use an underwriter or underwriters, we will execute an underwriting agreement with the underwriter or underwriters at the time that we reach an agreement for the sale of our securities.
- We and/or any selling stockholder will include the names of the specific managing underwriter or underwriters, as well as the names of any other underwriters, and the terms of the transactions, including the compensation the underwriters and dealers will receive, in the applicable prospectus supplement.
- The underwriters will use the applicable prospectus supplement, together with the prospectus, to sell our securities.

We may use a dealer to sell our securities.

- If we and/or any selling stockholder use a dealer, we will sell our securities to the dealer, as principal.
- The dealer will then sell our securities to the public at varying prices that the dealer will determine at the time it sells our securities.

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- We and/or any selling stockholder will include the name of the dealer and the terms of the transactions with the dealer in the applicable prospectus supplement.

We and/or any selling stockholder may solicit directly offers to purchase our securities, and we may directly sell our securities to institutional or other investors. We and/or any selling stockholder will describe the terms of direct sales in the applicable prospectus supplement.

We and/or any selling stockholder may engage in at the market offerings into an existing trading market in accordance with Rule 415(a)(4) of the Securities Act.

We and/or any selling stockholder will indemnify agents, underwriters and dealers against certain liabilities, including liabilities under the Securities Act. Agents, underwriters and dealers, or their affiliates, may be customers of, engage in transactions with or perform services for us or our respective affiliates, in the ordinary course of business.

We and/or any selling stockholder may authorize agents and underwriters to solicit offers by certain institutions to purchase our securities at the public offering price under delayed delivery contracts.

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- If we and/or any selling stockholder use delayed delivery contracts, we will disclose that we are using them in the prospectus supplement and will tell you when we will demand payment and when delivery of our securities will be made under the delayed delivery contracts.
- These delayed delivery contracts will be subject only to the conditions that we describe in the prospectus supplement.
- We and/or any selling stockholder will describe in the applicable prospectus supplement the commission that underwriters and agents soliciting purchases of our securities under delayed delivery contracts will be entitled to receive.

Unless otherwise specified in connection with a particular underwritten offering of our securities, the underwriters will not be obligated to purchase offered securities unless specified conditions are satisfied, and if the underwriters do purchase any offered securities, they will purchase all offered securities.

In connection with underwritten offerings of the offered securities and in accordance with applicable law and industry practice, the underwriters in certain circumstances are permitted to engage in certain transactions that stabilize the price of our securities. Such transactions consist of bids or purchases for the purpose of pegging, fixing or maintaining the price of our securities. If the underwriters create a short position in our securities in connection with the offering (i.e., if they sell more securities than are set forth on the cover page of the applicable prospectus supplement), the underwriters may reduce that short position by purchasing our securities in the open market or as otherwise provided in the applicable prospectus supplement. The underwriters may also impose a penalty bid, whereby selling concessions allowed to dealers participating in the offering may be reclaimed if the securities sold by them are repurchased in connection with stabilization transactions. In general, purchases of a security for the purpose of stabilization or to reduce a short position could cause the price of the security to be higher than it might be in the absence of such purchases. The imposition of a penalty bid might also have an effect on the price of our securities to the extent that it were to discourage resales of our securities. The underwriters are not required to engage in these activities and may end any of these activities at any time.

We and/or any selling stockholder may effect sales of securities in connection with forward sale, option or other types of agreements with third parties. Any distribution of securities pursuant to any forward sale agreement may be effected from time to time in one or more transactions that may take place through a stock exchange, including block trades or ordinary broker's transactions, or through broker-dealers acting either as principal or agent, or through privately-negotiated transactions, or through an underwritten public offering, or through a combination of any such methods of sale, at market prices prevailing at the time of sale, prices relating to such prevailing market prices or at negotiated or fixed prices.

The specific terms of the lock-up provisions, if any, in respect of any given offering will be described in the applicable prospectus supplement.

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LEGAL MATTERS

Certain legal matters with respect to the securities offered hereby have been passed upon by Goodwin Procter LLP, Boston, Massachusetts.

EXPERTS

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Annual Report on Internal Control over Financial Reporting) incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2014 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The audited consolidated balance sheets of Lumara Health Inc. (formerly named K-V Pharmaceutical Company) as of March 31, 2014 and 2013 and the related consolidated statements of operations, changes in stockholders' equity (deficit) and cash flows for the period September 16, 2013 to March 31, 2014, and the period April 1, 2013 to September 15, 2013, and the year ended March 31, 2013 incorporated by reference in this prospectus, have been so incorporated in reliance on the report of BDO USA, LLP, an independent auditor, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

The audited consolidated balance sheets of Lumara Health Inc. (formerly named K-V Pharmaceutical Company) as of March 31, 2012 and 2011 and the related consolidated statements of operations, comprehensive loss, changes in shareholders' deficit and cash flows for each of the three years in the period ended March 31, 2012 and management's assessment of the effectiveness of internal control over financial reporting as of March 31, 2012 incorporated by reference in this prospectus, have been so incorporated in reliance on the reports of BDO USA, LLP, an independent registered public accounting firm (the report on the financial statements contains an explanatory paragraph regarding the Company's ability to continue as a going concern), incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

DOCUMENTS INCORPORATED BY REFERENCE

The SEC allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring you to those documents. The information we incorporate by reference is considered part of this prospectus. Statements in this prospectus regarding the contents of any contract or other document may not be complete. You should refer to the copy of the contract or other document filed as an exhibit to the registration statement. Later information filed with the SEC will update and supersede information we have included or incorporated by reference in this prospectus.

We incorporate by reference the documents listed below, which have been filed with the SEC (other than Current Reports or portions thereof furnished under Item 2.02 or Item 7.01 of Form 8-K):

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1. Our Annual Report on Form 10-K for the fiscal year ended December 31, 2014, as filed on February 18, 2015;
2. Our Current Report on Form 8-K as filed on November 12, 2014 (solely other than with respect to Exhibit 99.1 thereto), as amended on January 12, 2015 and as further amended on February 24, 2015, as well as our Current Report on Form 8-K as filed on January 9, 2015;
3. The description of our common stock, which is registered under Section 12 of the Exchange Act, contained under Item 8.01 of our Current Report on Form 8-K, as filed on August 1, 2013, including any amendment or report filed for the purpose of updating such descriptions; and

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4. The description of our Series A Junior Participating Preferred Stock Purchase Rights, or the rights, contained under Item 3.03 of our Current Report on Form 8-K, as filed on September 4, 2009, and in our registration statement on Form 8-A registering the rights under Section 12 of the Exchange Act, filed with the SEC on September 4, 2009, including without limitation any amendments or reports filed for the purpose of updating that description, including the amendment described under Item 3.03 of our Current Report on Form 8-K, as filed on September 29, 2014, and in our registration statement on Form 8-A registering the rights under Section 12 of the Exchange Act, filed with the SEC on September 29, 2014.

We also incorporate by reference any filings made after the date of effectiveness of the registration statement with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, except as to any portion of any future report or document that is not deemed filed under such provisions, until the offering of the securities made by this prospectus is completed or terminated.

We will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon the written or oral request of that person, a copy of any and all of the information that has been incorporated in this prospectus by reference other than exhibits unless those exhibits are specifically incorporated by reference into the documents. Requests for these copies should be directed to our investor relations department at the following address and telephone number: AMAG Pharmaceuticals, Inc., 1100 Winter Street, Waltham, Massachusetts, 02451; (617) 498-3300.

WHERE YOU CAN FIND MORE INFORMATION

We file reports, proxy statements and other information with the SEC. You may read and copy the reports, proxy statements and other information that we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for information about the operation of its Public Reference Room and for its prescribed rates to obtain copies of such material. The SEC also maintains an Internet site that contains reports, proxy and information statements and other information regarding registrants, like us, that file electronically with the SEC. The address of the SEC's Internet site is <http://www.sec.gov>. Our Internet site is <http://www.amagpharma.com>. Information contained on our Internet site is not a part of this prospectus.

This prospectus provides you with a general description of the common stock, preferred stock, debt securities, warrants, and units being registered. This prospectus is part of a registration statement that we have filed with the SEC. To see more detail, you should read the registration statement and the exhibits and schedules filed with, or incorporated by reference into, our registration statement.

This registration statement, including the exhibits contained or incorporated by reference therein, can be read at the SEC web site or at the SEC office referred to above. Any statement made or incorporated by reference in this prospectus concerning the contents of any contract, agreement or other document is only a summary of the actual contract, agreement or other document. If we have filed or incorporated by reference any contract, agreement or other document as an exhibit to the registration statement, you should read the exhibit for a more complete understanding of the document or matter involved. Each statement regarding a contract, agreement or other document is qualified in its entirety by reference to the actual document.

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\$125,000,000

Common Stock

Prospectus Supplement

J.P. Morgan

Deutsche Bank Securities

February , 2015
