

**AMAG PHARMACEUTICALS, INC.**  
**ATTN: INVESTOR RELATIONS**  
**1100 WINTER STREET**  
**WALTHAM, MA 02451**

**VOTE BY INTERNET - [www.proxyvote.com](http://www.proxyvote.com)**

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. EDT the day before the cut-off date or meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

**ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS**

If you would like to reduce the costs incurred by our company in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access proxy materials electronically in future years.

**VOTE BY PHONE - 1-800-690-6903**

Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. EDT the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions.

**VOTE BY MAIL**

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

E26950-P90328

KEEP THIS PORTION FOR YOUR RECORDS  
 DETACH AND RETURN THIS PORTION ONLY

**THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.**

**AMAG PHARMACEUTICALS, INC.**

**The Board of Directors recommends you vote FOR the following nominees and proposals:**

1. Election of Directors

To elect the nine nominees nominated by our Board of Directors named herein to the Board of Directors to serve until the next annual meeting of stockholders and until their successors have been elected and qualified;

**Nominees:**

	For	Against	Abstain
1a. William K. Heiden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1b. Barbara Deptula	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1c. John A. Fallon, M.D.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1d. Brian P. Kelley	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1e. Robert J. Perez	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1f. Lesley Russell, MB.Ch.B., MRCP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1g. Gino Santini	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1h. Davey S. Scoon	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1i. James R. Sulat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. To approve the Fourth Amended and Restated 2007 Equity Incentive Plan to, among other things, increase the number of shares of our common stock available for issuance thereunder by 2,485,000 shares;

For  Against  Abstain

3. To approve, on an advisory basis, the compensation of our named executive officers, as disclosed in the proxy statement;

For  Against  Abstain

**The Board of Directors recommends you vote 1 Year on the following proposal:**

4. To indicate, on an advisory basis, the preferred frequency of future stockholder advisory votes on the compensation of our named executive officers;

1 Year  2 Years  3 Years  Abstain

**The Board of Directors recommends you vote FOR the following proposals:**

- |  | For                      | Against                  | Abstain                  |
|--|--------------------------|--------------------------|--------------------------|
| 5. To approve the Rights Agreement, dated as of April 7, 2017;   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. To ratify the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the year ending December 31, 2017; and | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. To transact such other business as may properly come before the Annual Meeting or any adjournments or postponements thereof.                            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

For address changes and/or comments, please check this box and write them on the back where indicated.

Please indicate if you plan to attend this meeting.  Yes  No

Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name by authorized officer.

Signature [PLEASE SIGN WITHIN BOX] Date

Signature (Joint Owners) Date

**Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting to be Held on May 18, 2017:**

The Notice and Proxy Statement, this Proxy Card, AMAG's Annual Report on Form 10-K and any other proxy materials are available at [www.proxyvote.com](http://www.proxyvote.com).

E26951-P90328

**AMAG PHARMACEUTICALS, INC.  
Annual Meeting of Stockholders  
May 18, 2017 9:00 AM  
This proxy is solicited by the Board of Directors**

The stockholder hereby appoints William K. Heiden, Edward Myles and Joseph D. Vittiglio, or any of them, as proxies, each with the power to appoint his substitute, and hereby authorizes them to represent and to vote, as designated on the reverse side of this ballot, all of the shares of common stock of AMAG PHARMACEUTICALS, INC. that the stockholder is entitled to vote at the Annual Meeting of Stockholders to be held at 9:00 AM, local time on May 18, 2017, at the offices of AMAG Pharmaceuticals, Inc., 1100 Winter Street, Waltham, Massachusetts 02451, and any adjournment or postponement thereof.

**This proxy, when properly executed, will be voted in the manner directed herein. If no such direction is made, this proxy will be voted in accordance with the Board of Directors' recommendations.**

Address Changes/Comments: \_\_\_\_\_  
\_\_\_\_\_

(If you noted any Address Changes/Comments above, please mark corresponding box on the reverse side.)

**Continued and to be signed on reverse side**