



33,333,334 Shares

Common Stock

This free writing prospectus relates only to the shares of common stock described below and should be read together with the preliminary prospectus dated October 24, 2017 (the "Preliminary Prospectus") and the Registration Statement on Form S-3 (Registration No. 333-219851) (the "Registration Statement") relating to these shares.

The following information supplements and updates the information contained in the Preliminary Prospectus.

Issuer	Idera Pharmaceuticals, Inc.
Common stock offered by us	33,333,334 shares
Common stock to be outstanding after this offering	183,013,693 shares
Underwriters' option	The underwriters have a 30-day option to purchase up to an additional 5,000,000 shares of our common stock from us.
Public offering price	\$1.50 per share
Use of proceeds	We estimate that the net proceeds to us from this offering, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately \$46.8 million, or approximately \$53.8 million if the underwriters exercise their option to purchase additional shares from us in full. We believe that the net proceeds to us from this offering, together with our existing cash, cash equivalents and investments, will enable us to fund our operations into the second quarter of 2019. We plan to use the net proceeds from this offering, together with our existing cash, cash equivalents and investments, to advance the development of IMO-2125 in our immuno-oncology program and for working capital and other general corporate purposes.
Participation of principal stockholders	Entities affiliated with two of our directors, Julian C. Baker and Dr. Kelvin M. Neu, have indicated an interest in purchasing up to an aggregate of

8,000,000 shares of the common stock offered in this offering at the price offered to the public. Because these indications are not binding agreements or commitments to purchase, any or all of these entities may elect not to purchase any shares in this offering, or the underwriters may elect not to sell any shares in this offering to any or all of these entities.

The issuer has filed a registration statement (including a prospectus) with the U.S. Securities and Exchange Commission (the "SEC") for the offering to which this communication relates. Before you invest, you should read the prospectus in that registration statement and other documents the issuer has filed with the SEC for more complete information about the issuer and this offering. You may get these documents for free by visiting EDGAR on the SEC Web site at <http://www.sec.gov>. Alternatively, the issuer, any underwriter or any dealer participating in the offering will arrange to send you the prospectus if you request it by contacting J.P. Morgan Securities LLC, c/o Broadridge Financial Solutions, 1155 Long Island Avenue, Edgewood, NY 11717 (telephone: 866-803-9204); from Goldman Sachs & Co. LLC, Attention: Prospectus Department, 200 West Street, New York, NY 10282, or by telephone at (866) 471-2526 or e-mail at prospectus-ny@ny.email.gs.com; or from Barclays Capital Inc., c/o Broadridge Financial Solutions, 1155 Long Island Avenue, Edgewood, NY 11717, or by telephone at (888) 603-5847 or email at barclaysprospectus@broadridge.com.