

Mast Therapeutics, Inc.

Form 425

March 15, 2017

Filed by Mast Therapeutics, Inc.

Pursuant to Rule 425 under the Securities Act of 1933

Subject Company: Mast Therapeutics, Inc.

Commission File No.: 001-32157

Dear Stockholders,

Mast Therapeutics, Inc. and Savara Inc. have entered into an Agreement and Plan of Merger and Reorganization. The proposed merger will result in a clinical-stage specialty pharmaceutical company focused on the development and commercialization of novel therapies for the treatment of serious or life-threatening rare respiratory diseases. Upon the closing of the merger, Mast stockholders will retain ownership of approximately 23% of the combined company and two independent Mast directors will continue to serve on the board of directors of the combined company, as described in more detail in the merger agreement and in the accompanying proxy statement/prospectus/information statement.

At the special meeting of Mast stockholders to be held on April 21, 2017, you are being asked to adopt the merger agreement and approve an amended and restated Mast certificate of incorporation to effect a reverse stock split of Mast common stock and change the Mast corporate name to Savara Inc., and to approve, on a non-binding advisory vote basis, compensation that will or may become payable by Mast to its named executive officers in connection with the merger, each as described in the accompanying proxy statement/prospectus/ information statement.

Your vote today in favor of all proposals is critically important.

Reasons for the Merger

After careful consideration, the Mast and Savara boards of directors have unanimously approved the merger agreement and determined that it is advisable to effect the merger. The board of directors of Mast unanimously recommends that its stockholders vote FOR the proposals described in the accompanying proxy statement/prospectus/information statement.

Following the merger, Mast and Savara believe that the combined organization will result in the following benefits for stockholders of Mast:

the combined company will have a pipeline of novel inhalation therapies for the treatment of serious or life-threatening rare respiratory diseases featuring three product candidates, each in advanced clinical development consisting of Savara's Phase 3 AeroVanc and Phase 2/3 Molgradex programs and Mast's Phase 2 AIR001 program;

the Mast board of directors concluded that the merger would provide the existing Mast stockholders with a significant opportunity to participate in the potential increase in value of the combined organization following the merger including the potential value that may result from development of the Savara product candidate portfolio following the merger;

the Mast board of directors' belief that the combined company's financial resources to advance the development of AIR001 towards approval and commercialization would be greater than Mast's prospects for raising the significant amount of funds it would require to continue and complete development and clinical trials for AIR001 on a stand-alone basis;

the combined company's ability to maintain Mast's listing on the NYSE MKT; and

that Mast stockholders, warrant holders and holders of Mast equity awards will continue to hold the same amount of Mast common stock, warrants to purchase Mast common stock and Mast equity awards held immediately prior to the merger, as appropriately adjusted for the reverse stock split.

Reasons for the Reverse Stock Split

A reverse stock split can be undertaken to increase the share price and reduce the number of outstanding shares in a company. A reverse stock split in and of itself does not have any immediate effect on the aggregate market value of a company's stock or on the ownership percentage that any stockholder has in a company, but may provide several advantages to the company. The Mast board of directors approved the reverse stock split proposal, which Mast and Savara believe is critically important to the success of the merger and the success of the combined company after the closing of the merger for the following reasons:

effecting a reverse stock split is necessary to maintain the listing of the combined company's post-merger common stock on a national securities exchange given the minimum share price requirement of the NYSE MKT and other national securities exchanges for initial listings, and to help avoid a delisting of the common stock in the future;

a reverse stock split is also required to ensure that Mast will have a sufficient amount of authorized and unissued shares of common stock to consummate the merger. If the requisite stockholders of Mast approve the merger and the issuance of Mast common stock pursuant to the merger agreement but do not approve the reverse stock split, Mast will not have a sufficient authorized amount of common stock to consummate the merger and the merger will not be able to close;

the reverse stock split would bring the share price of the combined company to a level that is customary among successful companies listed on the major US stock exchanges;

the increased share price would broaden the pool of potential investors into the combined company by meeting the requirements of certain institutional investors who have internal policies prohibiting them from purchasing stocks below a certain minimum share price, and by meeting the requirements of certain financial advisors who have policies to discourage their clients from investing into such stocks; and

the increased share price could allow inclusion of the combined company's common stock in certain biotech indices, and thereby allow investment in the combined company by certain index funds.

Given the recent Mast share price, both Mast and Savara believe that a reverse split in the range of 50:1 to 70:1 would be required to accomplish the stated goals above. The exact reverse split ratio will be based on the Mast share price a few days prior to the special meeting of Mast stockholders.

EVERY VOTE IN FAVOR OF EACH PROPOSAL IS EXTREMELY IMPORTANT

NO MATTER HOW MANY OR HOW FEW SHARES YOU OWN

Consequences of the Merger Not Closing

If, for any reason, the merger does not close, the Mast board of directors may elect to, among other things, attempt to complete another strategic transaction like the merger, attempt to sell or otherwise dispose of the various assets of Mast or continue to operate the business of Mast. If Mast decides to dissolve and liquidate its assets, Mast would be required to pay all of its debts and contractual obligations, and to set aside certain reserves for potential future claims,

and there can be no assurances that there would be any significant amount of available cash left to distribute to stockholders after paying the debts and other obligations of Mast and setting aside funds for reserves.

What You Need to Do Now

I urge you to read the accompanying proxy statement/prospectus/information statement carefully, including its annexes, and to consider how the merger affects you. If you are a stockholder of Mast, you may provide your proxy instructions in one of two different ways. First, you can mail your signed proxy card in the enclosed return envelope. Second, you may also provide your proxy instructions via the Internet or telephone by following the

instructions on your proxy card or voting instruction form. Please provide your proxy instructions only once, unless you are revoking a previously delivered proxy instruction, and as soon as possible so that your shares can be voted at the special meeting of Mast stockholders.

If you are a Mast stockholder, the failure to return your proxy card or otherwise provide proxy instructions will reduce the aggregate number of votes required to approve Mast Proposals Nos. 1, 4 and 5 and will have the same effect as voting against Mast Proposal Nos. 2 and 3, and your shares will not be counted for purposes of determining whether a quorum is present at the Mast special meeting.

We very much appreciate your patience throughout this process, and we sincerely hope this merger with Savara will deliver the value you deserve.

Sincerely,

Brian M. Culley

Chief Executive Officer and Director

Mast Therapeutics, Inc.

Regardless of the number of shares you own, it is important that they be represented at this Special Meeting of Stockholders. Mast stockholder approval must exceed 50% of Mast's outstanding common stock as of the record date to consummate the merger. This is a high threshold. Your vote matters to us and we need your support.

YOUR PARTICIPATION IS IMPORTANT PLEASE VOTE TODAY!

If you have any questions or need assistance voting, please contact our proxy solicitation firm:

Advantage Proxy, Inc.

Toll Free: 1-877-870-8565

Collect: 1-206-870-8565

Email: ksmith@advantageproxy.com

IF YOU HAVE RECENTLY MAILED YOUR PROXY OR CAST YOUR VOTE BY PHONE OR OVER THE INTERNET, PLEASE ACCEPT OUR THANKS AND DISREGARD THIS REQUEST.

***IF YOUR SHARES ARE HELD IN A BROKERAGE ACCOUNT YOU SHOULD KNOW THAT
YOUR BROKER WILL NOT VOTE YOUR SHARES IF THEY DON T RECEIVE INSTRUCTIONS FROM YOU.
PLEASE VOTE YOUR SHARES NOW SO YOUR VOTE CAN BE COUNTED WITHOUT DELAY.***