Mast Therapeutics, Inc.
Form 424B3
March 15, 2017
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Registration No. 333-216012

PROPOSED MERGER

YOUR VOTE IS VERY IMPORTANT

To the Stockholders of Mast Therapeutics, Inc. and Savara Inc.:

Mast Therapeutics, Inc., or Mast, and Savara Inc., or Savara, have entered into an Agreement and Plan of Merger and Reorganization, or the Merger Agreement, pursuant to which a wholly owned subsidiary of Mast will merge with and into Savara, with Savara surviving as a wholly owned subsidiary of Mast, or the merger. The 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.

Immediately prior to the effective time of the merger, each share of Savara preferred stock will be converted into one share of Savara common stock. At the effective time of the merger, each share of Savara common stock will be converted into the right to receive approximately 41 pre-split shares of Mast common stock, subject to adjustment to account for the effect of a reverse stock split of Mast common stock in accordance with a ratio to be determined by mutual agreement of Mast and Savara, and approved by the Mast board of directors, within a range of one share of Mast common stock for every 50 to 70 shares of Mast common stock (or any number in between), or the Reverse Stock Split, to be implemented prior to the consummation of the merger as discussed in this proxy statement/prospectus/information statement. Mast will assume restricted shares of Savara common stock and options to purchase Savara common stock that are outstanding and unexercised as of immediately prior to the effective time of the merger, and they will be converted into restricted shares of Mast common stock or options to purchase Mast common stock, respectively. Mast will assume warrants to purchase Savara common stock that are outstanding and unexercised as of immediately prior to the effective time of the merger, and they will be converted into warrants to purchase Mast common stock. Mast stockholders will continue to own and hold their existing shares of Mast common stock. Immediately after the merger, Savara stockholders, warrantholders and optionholders will own approximately 77% of the common stock of Mast, with Mast stockholders, warrantholders and optionholders, whose Mast equity will remain outstanding after the merger, holding approximately 23% of the common stock of Mast. The exchange ratio is determined pursuant to a formula described in more detail in the Merger Agreement and in the attached proxy statement/prospectus/information statement, and the pre-split figure and percentage ownership figures are estimates.

Shares of Mast common stock are currently listed on the NYSE MKT equities market under the symbol MSTX. Prior to consummation of the merger, Mast intends to file an initial listing application for the combined company with the NYSE MKT or another national securities exchange. In connection with the merger, Mast will be renamed Savara Inc. and expects to trade on the NYSE MKT or another national securities exchange under the symbol SVRA. On March 14, 2017, the last trading day before the date of this proxy statement/prospectus/information statement, the closing sale price of Mast common stock was $0.11 per share.

Mast is holding a special meeting of stockholders to obtain the stockholder approvals necessary to complete the merger and related matters. At the Mast special meeting, which will be held at 9:00 a.m., local time, on April 21, 2017 at the offices of Mast Therapeutics, Inc. located at 3611 Valley Centre Drive, Suite 500, San Diego, California 92130, unless postponed or adjourned to a later date, Mast will ask its stockholders to, among other things, adopt the Merger Agreement thereby approving the merger and the issuance of Mast common stock, and approve an amendment and restatement of the Mast amended and restated certificate of incorporation (i) the Reverse Stock Split, and (ii) changing the Mast corporate name to Savara Inc., and 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.

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As described in the accompanying proxy statement/prospectus/information statement, certain Savara stockholders who in the aggregate beneficially own or control approximately 30% of the outstanding shares of Savara common stock on an as converted to common stock basis, and certain Mast stockholders who in the aggregate beneficially own or control less than one percent of the outstanding shares of Mast common stock, are parties to voting agreements with Mast and Savara, respectively, whereby such stockholders agreed to vote in favor of the adoption of the Merger Agreement and the transactions contemplated by the Merger Agreement, respectively, subject to the terms of the voting agreements. In addition, following the registration statement on Form S-4, of which this proxy statement/prospectus/information statement is a part, being declared effective by the U.S. Securities and Exchange Commission and pursuant to the conditions of the Merger Agreement, the Savara stockholders who are party to the voting agreements will each execute an action by written consent of the Savara stockholders, referred to herein as the written consent, adopting the Merger Agreement and approving the merger and the transactions contemplated by the Merger Agreement. No meeting of Savara stockholders to adopt the Merger Agreement and approve the merger and related transactions will be held; however, all Savara stockholders will have the opportunity to elect to adopt the Merger Agreement, thereby approving the merger and related transactions, by signing and returning to Savara a written consent.

After careful consideration, the Mast and Savara boards of directors have unanimously approved the Merger Agreement and the respective proposals referred to above, and each of the Mast and Savara boards of directors has unanimously determined that it is advisable to enter into 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, and the board of directors of Savara unanimously recommends that its stockholders sign and return the written consent indicating their approval of the merger and adoption of the Merger Agreement and related transactions to Savara.

More information about Mast, Savara and the proposed transaction is contained in this proxy statement/prospectus/information statement. Mast and Savara urge you to read the accompanying proxy statement/prospectus/information statement carefully and in its entirety. IN PARTICULAR, YOU SHOULD CAREFULLY CONSIDER THE MATTERS DISCUSSED UNDER RISK FACTORS BEGINNING ON PAGE 24.

Mast and Savara are excited about the opportunities the merger brings to both Mast and Savara stockholders, and thank you for your consideration and continued support.

Brian M. Culley
Chief Executive Officer
Mast Therapeutics, Inc.

Robert Neville
Chief Executive Officer
Savara Inc.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this proxy

statement/prospectus/information statement. Any representation to the contrary is a criminal offense.

The accompanying proxy statement/prospectus/information statement is dated March 15, 2017, and is first being mailed to Mast and Savara stockholders on or about March 17, 2017.

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MAST THERAPEUTICS, INC.

3611 Valley Centre Drive, Suite 500

San Diego, California 92130

(858) 552-0866

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

To Be Held On April 21, 2017

Dear Stockholders of Mast:

On behalf of the board of directors of Mast Therapeutics, Inc., a Delaware corporation, or Mast, Mast is pleased to deliver this proxy statement/prospectus/information statement for the proposed merger between Mast and Savara Inc., a Delaware corporation, or Savara, pursuant to which Victoria Merger Corp., a wholly owned subsidiary of Mast, will merge with and into Savara, with Savara surviving as a wholly owned subsidiary of Mast. The special meeting of stockholders of Mast will be held on April 21, 2017 at 9:00 a.m., local time, at the offices of Mast Therapeutics, Inc. located at 3611 Valley Centre Drive, Suite 500, San Diego, California 92130, for the following purposes:

1. To consider and vote upon a proposal to approve the merger and the issuance of Mast common stock pursuant to the Agreement and Plan of Merger and Reorganization, dated as of January 6, 2017, by and among Mast, Victoria Merger Corp. and Savara, a copy of which is attached as *Annex A* to the accompanying proxy statement/prospectus/information statement;

2. To approve the amendment and restatement of the amended and restated certificate of incorporation of Mast to effect a reverse stock split of Mast common stock in accordance with a ratio to be determined by mutual agreement of Mast and Savara, and approved by the Mast board of directors, within a range of one share of Mast common stock for every 50 to 70 shares of Mast common stock (or any number in between) in the form attached as *Annex D* to the accompanying proxy statement/prospectus/information statement;

3. To approve the amendment and restatement of the amended and restated certificate of incorporation of Mast to change the name Mast Therapeutics, Inc. to Savara Inc. in the form attached as *Annex D* to the accompanying proxy statement/prospectus/information statement;

4. To consider and vote upon a proposal 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;

5. To consider and vote upon an adjournment of the Mast special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Mast Proposal Nos. 1, 2, 3 and 4; and

6. To transact such other business as may properly come before the stockholders at the Mast special meeting or any adjournment or postponement thereof.

The board of directors of Mast has fixed March 13, 2017 as the record date for the determination of stockholders entitled to notice of, and to vote at, the Mast special meeting and any adjournment or postponement thereof. Only

holders of record of shares of Mast common stock at the close of business on the record date are entitled to notice of, and to vote at, the Mast special meeting. At the close of business on the record date, Mast had 254,746,933 shares of common stock outstanding and entitled to vote.

Your vote is important. The affirmative vote of the holders of a majority of the shares of Mast common stock having voting power present in person or represented by proxy at the Mast special meeting, presuming a quorum is present, is required for approval of Mast Proposal Nos. 1, 4 and 5. The affirmative

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vote of the holders of a majority of shares of Mast common stock having voting power outstanding on the record date for the Mast special meeting is required for approval of Mast Proposal Nos. 2 and 3. Each of Proposal Nos. 1, 2 and 3 are conditioned upon each other. Therefore, the merger cannot be consummated without the approval of Proposal Nos. 1, 2 and 3.

Even if you plan to attend the Mast special meeting in person, Mast requests that you sign and return the enclosed proxy to ensure that your shares will be represented at the Mast special meeting if you are unable to attend.

By Order of the Mast Board of Directors,

Brian M. Culley

Chief Executive Officer

San Diego, California

March 15, 2017

THE MAST BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT EACH OF THE PROPOSALS OUTLINED ABOVE IS ADVISABLE TO, AND IN THE BEST INTERESTS OF, MAST AND ITS STOCKHOLDERS AND HAS APPROVED EACH SUCH PROPOSAL. THE MAST BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT MAST STOCKHOLDERS VOTE FOR EACH SUCH PROPOSAL.

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REFERENCES TO ADDITIONAL INFORMATION

This proxy statement/prospectus/information statement incorporates important business and financial information about Mast that is not included in or delivered with this document. You may obtain this information without charge through the Securities and Exchange Commission, or the SEC, website (www.sec.gov) or upon your written or oral request by contacting the Chief Financial Officer of Mast Therapeutics, Inc., 3611 Valley Centre Drive, Suite 500, San Diego, California 92130 or by calling (858) 552-0866.

To ensure timely delivery of these documents, any request should be made no later than April 13, 2017 to receive them before the special meeting.

For additional details about where you can find information about Mast, please see the section entitled Where You Can Find More Information in this proxy statement/prospectus/information statement.

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QUESTIONS AND ANSWERS ABOUT THE MERGER

Except where specifically noted, the following information and all other information contained in this proxy statement/prospectus/information statement does not give effect to the proposed reverse stock split described in Mast Proposal No. 2, beginning on page 161 in this proxy statement/prospectus/information statement.

The following section provides answers to frequently asked questions about the merger. This section, however, provides only summary information. For a more complete response to these questions and for additional information, please refer to the cross-referenced sections.

Q: What is the merger?

A: Mast Therapeutics, Inc., or Mast, and Savara Inc., or Savara, have entered into an Agreement and Plan of Merger and Reorganization, dated as of January 6, 2017, or the Merger Agreement. The Merger Agreement contains the terms and conditions of the proposed business combination of Mast and Savara. Under the Merger Agreement, Victoria Merger Corp., a wholly owned subsidiary of Mast, or the Merger Sub, will merge with and into Savara, with Savara surviving as a wholly owned subsidiary of Mast. This transaction is referred to as the merger or the Merger.

At the effective time of the merger, each share of Savara common stock outstanding immediately prior to the effective time of the merger (excluding certain shares to be canceled pursuant to the Merger Agreement, and shares held by stockholders who have exercised and perfected appraisal rights or dissenters rights as more fully described in The Merger Appraisal Rights and Dissenters Rights below) will be converted into the right to receive approximately 41 pre-split shares of Mast common stock, subject to adjustment to account for a reverse stock split of Mast common stock, in accordance with a ratio to be determined by mutual agreement of Mast and Savara, subject to approval by the Mast board of directors (the Mast Board), within a range of one share of Mast common stock for every 50 to 70 shares of Mast common stock (or any number in between) (the Reverse Stock Split), to be implemented prior to the consummation of the merger. As a result of the merger, holders of Savara stock, options and warrants are expected to own in the aggregate approximately 77% of Mast, and the Mast stockholders, optionholders and warrantholders are expected to own in the aggregate approximately 23% of Mast. The exchange ratio is determined pursuant to a formula described in more detail in the Merger Agreement and in this proxy statement/prospectus/information statement, and the pre-split figure and percentage ownership figures are estimates. In connection with the merger, Mast will change its corporate name to Savara Inc. as required by the Merger Agreement.

Q: What will Savara stockholders, warrantholders and holders of Savara equity awards receive in the merger?

A: As a result of the merger, Savara stockholders, warrantholders and holders of Savara equity awards will become entitled to receive shares of Mast common stock, warrants and equity awards equal to approximately 77% of the fully-diluted common stock of Mast. At the effective time of the merger, each share of Savara capital stock will be converted into the right to receive the number of shares of Mast common stock calculated based on the exchange ratio determined in accordance with the Merger Agreement. Savara outstanding warrants, or Savara Warrants, to purchase shares of Savara equity securities not exercised at or prior to the effective time of the

merger will be converted into warrants to purchase Mast common stock, with the number of shares and exercise price being appropriately adjusted to reflect the exchange ratio between Mast common stock and Savara common stock determined in accordance with the Merger Agreement.

At the effective time of the merger, each option to purchase Savara common stock, or Savara Options, that is outstanding and unexercised immediately prior to the effective time of the merger will be converted into and become an option to purchase Mast common stock, with the number of shares and exercise price being appropriately adjusted to reflect the exchange ratio between Mast common stock and Savara common stock determined in accordance with the Merger Agreement.

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At the effective time of the merger, each share of Savara restricted common stock, or Savara Restricted Shares, that is outstanding immediately prior to the effective time of the merger will be exchanged for a restricted share of Mast common stock, and will have, and be subject to, the same terms and conditions (including vesting terms) set forth in Savara s Stock Option Plan and applicable restricted share agreements relating thereto. The number of Mast restricted shares that will be exchanged for an award of Savara restricted shares will be appropriately adjusted to reflect the exchange ratio between Mast common stock and Savara common stock determined in accordance with the Merger Agreement.

For a more complete description of what Savara stockholders, warrantholders and holders of Savara equity awards will receive in the merger, please see the sections entitled Market Price and Dividend Information and The Merger Agreement Merger Consideration in this proxy statement/prospectus/information statement.

Q: What will Mast stockholders, warrantholders and holders of Mast equity awards receive in the merger?

A: Mast stockholders, warrantholders and holders of Mast equity awards will not receive anything as a result of the merger, but 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.

Q: What will happen to Mast if, for any reason, the merger does not close?

A: If, for any reason, the merger does not close, the Mast Board 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 as to the amount or timing of available cash left to distribute to stockholders after paying the debts and other obligations of Mast and setting aside funds for reserves.

Q: Why are the two companies proposing to merge?

A: Following the merger, Mast and Savara believe the combined organization will advance a diversified pipeline of novel therapies for the treatment of serious or life-threatening rare respiratory diseases. Mast and Savara believe that the combined organization will have the following potential advantages: (i) a diversified, late-stage product development pipeline with important forthcoming milestones; (ii) an experienced management team; and (iii) the potential to access additional sources of capital. For a discussion of Mast and Savara reasons for the merger, please see the section entitled The Merger Mast Reasons for the Merger and The Merger Savara Reasons for the Merger in this proxy statement/prospectus/information statement.

Q: Why am I receiving this proxy statement/prospectus/information statement?

A: You are receiving this proxy statement/prospectus/information statement because you have been identified as a stockholder of Mast or Savara as of the applicable record date, and you are entitled, as applicable, to vote at the Mast stockholder meeting to approve among other things the merger and the issuance of shares of Mast common stock pursuant to the Merger Agreement, or sign and return the Savara written consent to adopt the Merger Agreement and approve the merger. This document serves as:

a proxy statement of Mast used to solicit proxies for its special meeting of stockholders;

a prospectus of Mast used to offer shares of Mast common stock in exchange for shares of Savara common stock in the merger and issuable upon exercise of Savara options and warrants; and

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an information statement of Savara used to solicit the written consent of its stockholders for the adoption of the Merger Agreement and the approval of the merger and related transactions.

Q: What is required to consummate the merger?

A: To consummate the merger, Mast stockholders must approve the issuance of Mast common stock pursuant to the Merger Agreement. In addition, the Merger Agreement anticipates approval of an amendment and restatement of the amended and restated certificate of incorporation of Mast effecting (i) the Reverse Stock Split, and (ii) the change in Mast s name to Savara Inc. Moreover, Savara stockholders must approve the merger.

The approval of the merger and the issuance of Mast common stock pursuant to the Merger Agreement by the stockholders of Mast requires the affirmative vote of the holders of a majority of the shares of Mast common stock having voting power present in person or represented by proxy at the Mast special meeting for the issuance of shares of Mast common stock in the merger, presuming a quorum is present at the meeting. The approval of the Reverse Stock Split and the change of Mast s name require the affirmative vote of the holders of a majority of shares of Mast common stock having voting power outstanding on the record date for the Mast special meeting. The approval of the Reverse Stock Split is required in order to authorize Mast to implement the Reverse Stock Split and to ensure Mast may issue a sufficient amount of Mast common stock to consummate the merger. In addition, the Reverse Stock Split is necessary to ensure that the post-merger trading price of Mast s common stock satisfies the initial listing requirements of the NYSE MKT or other national securities exchange applicable to the combined company. Therefore, 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, it is possible that the merger may not be consummated.

The adoption of the Merger Agreement and the approval of the merger and related transactions by the stockholders of Savara require the affirmative votes of the holders of (i) a majority of the outstanding Savara common stock and preferred stock, voting together as one class, and (ii) a majority of the outstanding shares of Savara preferred stock. In addition to the requirement of obtaining such stockholder approvals, each of the other closing conditions set forth in the Merger Agreement must be satisfied or waived.

Certain Savara stockholders who in the aggregate beneficially own or control approximately 30% of the outstanding shares of Savara common stock on an as converted to common stock basis, and certain Mast stockholders who in the aggregate beneficially own or control less than one percent of the outstanding shares of Mast common stock, are parties to voting agreements with Mast and Savara, respectively, whereby such stockholders agreed to vote in favor of the adoption of the Merger Agreement and the transactions contemplated by the Merger Agreement, respectively, subject to the terms of the voting agreements. In addition, following the registration statement on Form S-4, of which this proxy statement/prospectus/information statement is a part, being declared effective by the U.S. Securities and Exchange Commission and pursuant to the conditions of the Merger Agreement, Savara stockholders who are party to the voting agreements will each execute written consents approving the merger and related transactions. Stockholders of Savara, including those who are parties to voting agreements, are being requested to execute written consents providing such approvals.

For a more complete description of the closing conditions under the Merger Agreement, you are urged to read the section entitled The Merger Agreement Conditions to the Completion of the Merger in this proxy statement/prospectus/information statement.

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Q: Who will be the directors of Mast following the merger?

A: Immediately following the merger, the Mast Board is expected to be composed of seven directors, with five to be designated by Savara and two to be designated by Mast. Such directors are identified in the table below.

Name	Current Principal Affiliation
Robert Neville	Chairman and Chief Executive Officer, Savara
Nevan Elam	Chairman, Chief Executive Officer and President of AntriaBio, Inc.
Richard J. Hawkins	Chief Executive Officer and President of Lumos Pharma, Inc.
Yuri Pikover	Managing Director of 37 Ventures, LLC
Joseph S. McCracken	Roche Global Head of Business Development and Licensing (retired)
Matthew Pauls	Chair of the Mast Board
David A. Ramsay	Mast Director

Q: Who will be the executive officers of Mast immediately following the merger?

A: Immediately following the merger, the executive management team of Mast is expected to be composed solely of the members of the Savara executive management team prior to the merger as set forth below:

Name	Title
Robert Neville	Chief Executive Officer
Taneli Jouhikainen	President and Chief Operating Officer
David Lowrance	Chief Financial Officer

Q: What are the potential material U.S. federal income tax consequences of the merger to Savara stockholders?

A: Each of Mast and Savara intends the merger to qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended (the Code). However, completion of the merger is not conditioned upon receipt of an opinion from counsel that the merger qualifies as a reorganization, and the merger will occur even if the merger does not qualify as a reorganization.

Assuming the merger qualifies as a reorganization, in general, the material U.S. federal income tax consequences to U.S. Holders (as defined herein) of Savara common stock (other than any such holders exercising dissenters rights) are expected to be as follows:

Each Savara stockholder should not generally recognize gain or loss upon the exchange of Savara common stock for Mast common stock pursuant to the merger, except to the extent of cash received in lieu of a fractional share of Mast common stock as described below; and

Each Savara stockholder should recognize gain or loss to the extent any cash received in lieu of a fractional share of Mast common stock exceeds or is less than the basis of such fractional share.

Tax matters are very complicated, and the tax consequences of the merger to a particular Savara stockholder will depend on such stockholder s circumstances. Accordingly, you should consult your tax advisor for a full understanding of the tax consequences of the merger to you, including the applicability and effect of U.S. federal, state, local and non-U.S. income and other tax laws. For more information, please see the section entitled The Merger Considerations with Respect to U.S. Federal Income Tax Consequences of the Merger beginning on page 127.

Q: As a Mast stockholder, how does the Mast Board recommend that I vote?

A: After careful consideration, the Mast Board unanimously recommends that Mast stockholders vote:

FOR Proposal No. 1 to approve the merger and the issuance of shares of common stock of Mast in the merger;

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FOR Proposal No. 2 to approve the amendment and restatement of the amended and restated certificate of incorporation of Mast to effect a reverse stock split of Mast common stock in accordance with a ratio to be determined by mutual agreement of Mast and Savara, and approved by the Mast Board, within a range of one share of Mast common stock for every 50 to 70 shares of Mast common stock (or any number in between);

FOR Proposal No. 3 to approve the amendment and restatement of the amended and restated certificate of incorporation of Mast to change the name of Mast Therapeutics, Inc. to Savara Inc. ;

FOR Proposal No. 4 to consider and vote upon a proposal 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; and

FOR Proposal No. 5 to adjourn the special meeting, if necessary, if a quorum is present, to solicit additional proxies if there are not sufficient votes in favor of Proposal Nos. 1, 2, 3 and 4.

Q: What is the compensation that will or may become payable by Mast to its named executive officers in connection with the merger for purposes of this advisory vote?

A: The compensation that will or may become payable by Mast to its named executive officers in connection with the merger includes: (i) based on the terms of the severance agreements Mast entered into with its executive officers in March 2016, cash severance payments, cash payments intended to cover health insurance costs for a period of time post-termination and the acceleration of outstanding equity awards as a result of the planned termination of the named executive officers in connection with the consummation of the merger; (ii) incentive awards to Mast s named executive officers payable 50% in a single sum cash payment and 50% in a grant of restricted stock units (RSUs) approved by the Mast Board in January 2017 in order to retain, reward and incentivize these individuals for their continuing efforts to help Mast achieve its goals through the merger which will become payable or vest, as applicable, upon consummation of the merger; and (iii) certain RSUs granted in January 2017 and held by Mast s named executive officers provide that such RSUs will vest upon consummation of the merger and that their outstanding unexercised stock options will be cancelled. Based on the terms of their respective severance agreements, outstanding equity awards and Mast s short-term incentive program, Mast s executive officers will be entitled to receive a total value of approximately $2.5 million (collectively, not individually) in connection with the consummation of the merger and the associated termination of their employment from Mast, based on data available as of December 31, 2016. For further detail, see the section titled Mast Proposal No. 4: Advisory Non-Binding Vote on Merger-Related Executive Compensation Arrangements.

Q: What will happen if stockholders do not approve the compensation that will or may become payable by Mast to its named executive officers in connection with the merger at the special meeting?

A: Approval of the compensation that will or may become payable by Mast to its named executive officers in connection with the merger (and their associated termination from Mast) is not a condition to completion

of the merger. The vote with respect to the compensation that will or may become payable by Mast to its named executive officers in connection with the merger is an advisory vote and will not be binding on Mast. Further, the severance agreements, equity awards and other arrangements governing the consideration the Mast named executive officers have received or will be eligible to receive in the merger are contractual in nature and not, by their terms, subject to stockholder approval. Accordingly, regardless of the outcome of the advisory vote, if the Merger Agreement is adopted by the stockholders and the merger is completed, Mast s named executive officers will be eligible to receive the compensation that is based on or otherwise relates to the merger and their associated termination from Mast in accordance with the terms and conditions applicable to the employment and separation agreements, equity awards and other arrangements Mast has entered into with the named executive officers.

Q: As a Savara stockholder, how does the Savara board of directors recommend that I vote?

A: After careful consideration, the Savara board of directors (the Savara Board) unanimously recommends that Savara stockholders execute the written consent indicating their vote in favor of the adoption of the Merger Agreement and the approval of the merger and the transactions contemplated thereby.

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Q: What risks should I consider in deciding whether to vote in favor of the merger or to execute and return the written consent, as applicable?

A: You should carefully review the section of this proxy statement/prospectus/information statement entitled Risk Factors, which sets forth certain risks and uncertainties related to the merger, risks and uncertainties to which the combined organization s business will be subject, and risks and uncertainties to which each of Mast and Savara, as an independent company, is subject.

Q: When do you expect the merger to be consummated?

A: The merger is anticipated to occur promptly after the Mast special meeting to be held on April 21, 2017. For more information, please see the section entitled The Merger Agreement Conditions to the Completion of the Merger in this proxy statement/prospectus/information statement.

Q: What do I need to do now?

A: Mast and Savara urge you to read this 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 stockholder of Savara, you may execute and return your written consent to Savara in accordance with the instructions provided.

Q: What happens if I do not return a proxy card or otherwise provide proxy instructions, as applicable?

A: 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.

Q: May I vote in person at the special meeting of stockholders of Mast?

A: If your shares of Mast common stock are registered directly in your name with the Mast transfer agent, you are considered to be the stockholder of record with respect to those shares, and the proxy materials and proxy card

are being sent directly to you by Mast. If you are a Mast stockholder of record, you may attend the special meeting of Mast stockholders and vote your shares in person. Even if you plan to attend the Mast special meeting in person, Mast requests that you sign and return the enclosed proxy to ensure that your shares will be represented at the Mast special meeting if you are unable to attend. If your shares of Mast common stock are held in a brokerage account or by another nominee, you are considered the beneficial owner of shares held in street name, and the proxy materials are being forwarded to you by your broker or other nominee together with a voting instruction card. As the beneficial owner, you are also invited to attend the special meeting of Mast stockholders. Because a beneficial owner is not the stockholder of record, you may not vote these shares in person at the Mast special meeting unless you obtain a proxy from the broker, trustee or nominee that holds your shares, giving you the right to vote the shares at the meeting.

Q: When and where is the special meeting of Mast stockholders being held?

A: The special meeting of Mast stockholders will be held at the offices of Mast located at 3611 Valley Centre Drive, Suite 500, San Diego, California 92130, at 9:00 a.m. local time, on April 21, 2017. Subject to space availability, all Mast stockholders as of the record date, or their duly appointed proxies, may attend the meeting. Since seating is limited, admission to the meeting will be on a first-come, first-served basis.

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Q: If my Mast shares are held in street name by my broker, will my broker vote my shares for me?

A: Unless your broker has discretionary authority to vote on certain matters, your broker will not be able to vote your shares of Mast common stock on matters requiring discretionary authority without instructions from you. Brokers are not expected to have discretionary authority to vote for Mast Proposals No. 1, 2, 3 or 4. To make sure that your vote is counted, you should instruct your broker to vote your shares, following the procedures provided by your broker.

Q: May I change my vote after I have submitted a proxy or provided proxy instructions?

A: Mast stockholders of record, other than Mast stockholders who have signed voting agreements, may change their vote at any time before their proxy is voted at the Mast special meeting in one of three ways. First, a stockholder of record of Mast can send a written notice to the Secretary of Mast stating that it would like to revoke its proxy. Second, a stockholder of record of Mast can submit new proxy instructions either on a new proxy card or via the Internet or telephone. Third, a stockholder of record of Mast can attend the Mast special meeting and vote in person. Attendance alone will not revoke a proxy. If a Mast stockholder of record or a stockholder who owns Mast shares in street name has instructed a broker to vote its shares of Mast common stock, the stockholder must follow directions received from its broker to change those instructions.

Q: Who is paying for this proxy solicitation?

A: Mast and Savara will share equally the cost of printing and filing of this proxy statement/prospectus/information statement and the proxy card. Arrangements will also be made with brokerage firms and other custodians, nominees and fiduciaries who are record holders of Mast common stock for the forwarding of solicitation materials to the beneficial owners of Mast common stock. Mast will reimburse these brokers, custodians, nominees and fiduciaries for the reasonable out-of-pocket expenses they incur in connection with the forwarding of solicitation materials. Mast has retained Advantage Proxy to assist it in soliciting proxies using the means referred to above. Mast will pay the fees of Advantage Proxy, which Mast expects to be approximately $10,000, plus reimbursement of out-of-pocket expenses.

Q: Who can help answer my questions?

A: If you are a Mast stockholder and would like additional copies, without charge, of this proxy statement/prospectus/information statement or if you have questions about the merger, including the procedures for voting your shares, you should contact Mast s proxy solicitor:

ADVANTAGE PROXY

(877) 870-8565 (toll free)

(206) 870-8565 (collect)

ksmith@advantageproxy.com

If you are a Savara stockholder and would like additional copies, without charge, of this proxy statement/prospectus/information statement or if you have questions about the merger, including the procedures for voting your shares, you should contact:

Savara Inc.

900 S. Capital of Texas Highway

Las Cimas IV, Suite 150

Austin, Texas 78746

Tel: (512) 961-1891

Attn: Chris Marich, Head of Business Operations

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PROSPECTUS SUMMARY

This summary highlights selected information from this proxy statement/prospectus/information statement and may not contain all of the information that is important to you. To better understand the merger, the proposals being considered at the Mast special meeting and the Savara stockholder actions that are the subject of the written consent, you should read this entire proxy statement/prospectus/information statement carefully, including the Merger Agreement and the other annexes to which you are referred herein. For more information, please see the section entitled Where You Can Find More Information in this proxy statement/prospectus/information statement.

The Companies

Mast Therapeutics, Inc.

3611 Valley Centre Drive, Suite 500

San Diego, California 92130

(858) 552-0866

Mast Therapeutics, Inc., or Mast, is a biopharmaceutical company headquartered in San Diego, California. Mast s lead product candidate, AIR001, is a sodium nitrite solution for intermittent inhalation via nebulization for the treatment of heart failure with preserved ejection fraction (HFpEF), which is currently in Phase 2 clinical development.

Savara Inc.

900 S. Capital of Texas Highway

Las Cimas IV, Suite 150

Austin, Texas 78746

Tel: (512) 961-1891

Savara Inc., or Savara, is 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. Savara s pipeline comprises AeroVanc, a Phase 3 ready inhaled vancomycin, and Molgradex, a Phase 2/3 stage inhaled granulocyte-macrophage colony-stimulating factor, or GM-CSF. Savara s strategy involves expanding its pipeline of best-in-class products through indication expansion, strategic development partnerships and product acquisitions, with the goal of becoming a leading company in its field. Savara s management team has significant experience in orphan drug development and pulmonary medicine, in identifying unmet needs, creating and acquiring new product candidates, and effectively advancing them to approvals and commercialization.

Savara acquired the assets of Copenhagen-based Serendex Pharmaceuticals A/S (Serendex) on July 15, 2016. Serendex was established in 2008 and listed on the Oslo Stock Exchange in 2014. Serendex operated as a public company until their delisting on May 4, 2016, ahead of its acquisition by Savara.

Victoria Merger Corp.

3611 Valley Centre Drive, Suite 500

San Diego, California 92130

(858) 552-0866

Victoria Merger Corp., or Merger Sub, is a wholly owned subsidiary of Mast and was formed solely for the purposes of carrying out the merger.

The Merger (see page 90)

If the merger is completed, Merger Sub will merge with and into Savara, with Savara surviving as a wholly owned subsidiary of Mast.

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Immediately after the merger, subject to adjustments to reflect certain events that could occur prior to closing of the merger, Savara stockholders, option holders and warrant holders will own approximately 77% of the fully-diluted common stock of post-merger Mast, with Mast stockholders, option holders and warrant holders holding approximately 23% of the fully-diluted common stock of post-merger Mast. Savara outstanding warrants to purchase shares of Savara equity securities not exercised at or prior to the effective time of the merger will be converted into warrants to purchase Mast common stock. Mast will assume options to purchase Savara common stock that are outstanding and unexercised as of immediately prior to the effective time of the merger, and they will be converted into options to purchase Mast common stock. Mast will assume unvested shares of Savara restricted stock that are outstanding immediately prior to the effective time of the merger, and they will be converted into restricted shares of Mast common stock. The exchange ratio is determined pursuant to a formula described in more detail in the Merger Agreement and in this proxy statement/prospectus/information statement, and the percentage ownership figures are estimates. The foregoing percentages assume that the exchange ratio is not adjusted, as described in The Merger Merger Consideration and Adjustment below.

For a more complete description of the merger exchange ratio, please see the section entitled The Merger Agreement in this proxy statement/prospectus/information statement.

The closing of the merger will occur no later than three business days after the last of the conditions to the merger has been satisfied or waived, or at another time as Mast and Savara agree. Mast and Savara anticipate that the consummation of the merger will occur promptly after the Mast special meeting. However, because the merger is subject to a number of conditions, neither Mast nor Savara can predict exactly when the closing will occur or if it will occur at all. In connection with the merger, assuming that Mast receives the required stockholder approval of Mast Proposal No. 3, Mast will be renamed Savara Inc.

The reasons for the merger are described on pages 100 and 103.

Opinion of the Mast Financial Advisor (see page 104)

Roth Capital Partners LLC (Roth), the financial advisor of Mast, delivered to the Mast Board a written opinion dated January 6, 2017, addressed to the Mast Board, to the effect that, as of such date and based on and subject to the assumptions, factors, qualifications and limitations described in the opinion, the consideration to be paid by Mast in the merger was fair, from a financial point of view, to Mast. The full text of this written opinion to the Mast Board, which describes, among other things, the procedures followed, assumptions made, qualifications and limitations on the review undertaken and other matters considered by Roth in preparing its opinion, is attached as Annex B to this proxy statement/prospectus/information statement and is incorporated by reference in its entirety into this proxy statement/prospectus/information statement. Holders of Mast common stock are encouraged to read the opinion carefully in its entirety. The Roth opinion was prepared solely for the information of the Mast Board for use in connection with its consideration of the merger. It does not address any other aspect of the proposed merger or any alternative to the merger. Neither Roth s written opinion nor the summary of its opinion and the related analyses set forth in this proxy statement/prospectus/information statement are intended to be, and they do not constitute, advice or a recommendation to any stockholder as to how such stockholder should act or vote with respect to any matter relating to the merger or any other matter.

Overview of the Merger Agreement and Agreements Related to the Merger Agreement

Merger Consideration (see page 135)

Immediately prior to the effective time of the merger, each share of Savara preferred stock outstanding at such time will be converted into shares of Savara common stock at a ratio determined in accordance with the Savara certificate of incorporation then in effect. At the effective time of the merger:

each share of Savara capital stock issued and outstanding immediately prior to the effective time of the merger will be converted into and represent the right to receive a number of shares of Mast common stock equal to the exchange ratio, as described below; and

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each Savara Option will be assumed by Mast and will become an option to that number of shares of the common stock of Mast, or Mast Option, multiplied by the exchange ratio (and rounding the resulting number down to the nearest whole share), at an exercise price equal to the per share exercise price of such Savara Option divided by the exchange ratio (and rounding the resulting number up to the nearest whole cent);

each award of Savara Restricted Shares will be assumed by Mast and will become an award of a number of restricted shares of Mast, or Mast Restricted Shares, subject to vesting, determined by multiplying the number of Savara Restricted Shares subject to the award by the exchange ratio (and rounding the resulting number down to the nearest whole share); and

each Savara Warrant will be assumed by Mast and will become a warrant to purchase to that number of shares of the common stock of Mast, or Mast Warrants, multiplied by the exchange ratio (and rounding the resulting number down to the nearest whole share), at an exercise price equal to the per share exercise price of such Savara Warrant divided by the exchange ratio (and rounding the resulting number up to the nearest whole cent).

Immediately after the merger, based on the exchange ratio, Savara stockholders, warrantholders and optionholders will own approximately 77% of the fully-diluted common stock of Mast with Mast stockholders, optionholders and warrantholders holding approximately 23% of the fully-diluted common stock of Mast. The exchange ratio is determined pursuant to a formula described in more detail in the Merger Agreement and in this proxy statement/prospectus/information statement.

There will be no adjustment to the total number of shares of Mast common stock that Savara stockholders will be entitled to receive for changes in the market price of Mast common stock. Accordingly, the market value of the shares of Mast common stock issued pursuant to the merger will depend on the market value of the shares of Mast common stock at the time the merger closes, and could vary significantly from the market value on the date of this proxy statement/prospectus/information statement.

Treatment of Savara Options and Savara Restricted Shares (see page 139)

At the effective time of the merger, each Savara Option, whether vested or not vested, will be converted into a Mast Option and each Mast Option may be exercised solely for shares of Mast common stock. Mast will assume the Savara Stock Option Plan. The number of shares of Mast common stock subject to each Mast Option will be determined by multiplying (i) the number of shares of Savara common stock that were subject to the underlying Savara Option by (ii) the exchange ratio, with the resulting number rounded down to the nearest whole number of shares of Mast common stock. The per share exercise price for the Mast common stock subject to such Mast Option will be determined by dividing (i) the per share exercise price of the underlying Savara Option by (ii) the exchange ratio, with the resulting number rounded up to the nearest whole cent.

Any restrictions on the exercise of assumed Savara Options will continue in full force and effect following the conversion and the term, exercisability, vesting schedules, status as an incentive stock option under Section 422 of the Code, if applicable, and other provisions of the assumed Savara Options will generally remain unchanged; provided, that any Savara Options assumed by Mast may be subject to adjustment to reflect changes in Mast s capitalization after the effective time of the merger and that the Mast Board or any committee thereof will succeed to the authority of the Savara Board with respect to each assumed Savara Option.

At the effective time, Savara Restricted Share will be exchanged for a Mast Restricted Share and each Mast Restricted Share will have, and be subject to, the same terms and conditions (including vesting terms) set forth in Savara s Stock Option Plan and applicable Savara Restricted Share agreements relating thereto, as in effect immediately prior to the effective time of the merger. The number of Mast Restricted Shares that will be exchanged for an award of Savara Restricted Shares will equal the number of Savara Restricted Shares

outstanding subject to such award immediately prior to the effective time of the merger multiplied by the exchange ratio, with the result rounded down to the nearest whole number of shares of Mast common stock.

Treatment of Savara Warrants (see page 139)

At the effective time of the merger, each Savara Warrant will be converted into a Mast Warrant and each Mast Warrant may be exercised solely for shares of Mast common stock. The number of shares of Mast common stock subject to each Mast Warrant will be determined by multiplying (i) the number of shares of Savara common stock that were subject to the underlying Savara Warrant by (ii) the exchange ratio, with the resulting number rounded down to the nearest whole number of shares of Mast common stock. The per share exercise price for the Mast common stock subject to such Mast Warrant will be determined by dividing (i) the per share exercise price of the underlying Savara Warrant by (ii) the exchange ratio, with the resulting number rounded up to the nearest whole cent.

Any restrictions on the exercise of assumed Savara Warrants will continue in full force and effect following the conversion and the term, exercisability and other provisions of the assumed Savara Warrants will otherwise remain unchanged; provided, that any Savara Warrants assumed by Mast may be subject to adjustment to reflect changes in Mast s capitalization after the effective time of the merger.

Conditions to the Completion of the Merger (see page 140)

To consummate the merger, Mast stockholders must approve the merger and the issuance of shares of Mast common stock in the merger. In addition, the Merger Agreement anticipates approval of an amendment and restatement of the amended and restated certificate of incorporation of Mast (i) effecting the proposed Reverse Stock Split, and (ii) effecting a change of the Mast name to Savara Inc. Moreover, the Savara stockholders must adopt the Merger Agreement and approve the merger. In addition to obtaining such stockholder approvals and appropriate regulatory approvals, each of the other closing conditions set forth in the Merger Agreement must be satisfied or waived.

No Solicitation (see page 144)

Each of Mast and Savara agreed that, subject to limited exceptions, Mast and Savara will not, and will not authorize or permit any of their respective subsidiaries or any of their respective controlled affiliates, officers, directors, employees, partners, attorneys, accountants, advisors, agents or representatives of such parties or of any such party s subsidiaries or other controlled affiliates to, directly or indirectly:

- solicit, initiate, knowingly encourage, induce or facilitate the making, submission or announcement of any acquisition proposal, as defined below, or take any action that would reasonably be expected to lead to an acquisition proposal;

- furnish any nonpublic information regarding it to any person in connection with or in response to an acquisition proposal or an inquiry or indication of interest that could lead to an acquisition proposal;

- engage in discussions or negotiations with any person with respect to any acquisition proposal;

approve, endorse or recommend an acquisition proposal; or

enter into any letter of intent or similar document or any agreement contemplating or otherwise relating to an acquisition transaction, as defined in the Merger Agreement.

However, before obtaining the applicable Mast or Savara stockholder approvals required to adopt the Merger Agreement, each party may furnish nonpublic information regarding such party and its respective

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subsidiaries to, may enter into discussions with, or facilitate or cooperate with the submission of an acquisition proposal made by any person in response to any such acquisition proposal, that after consultation with a financial advisor and outside legal counsel, such party s board of directors determines in good faith is, or would reasonably be expected to result in a superior offer, as defined in the Merger Agreement, if:

such acquisition proposal did not result from a breach of the no solicitation provisions of the Merger Agreement described above such party s board of directors concludes in good faith, after having taken into account the advice of its outside legal counsel, that such action is required in order for the board of directors to comply with its fiduciary duty obligations to its stockholders under applicable legal requirements;

at least two business days prior to furnishing any information or entering into discussions with a third party, such party must (i) give the other party written notice of the identity of the third party, the terms and conditions of any proposals or offers (including, if applicable, copies of any written requests, proposals or offers, including proposed agreements) made thereby and of that party s intention to furnish information to, or enter into discussions with such third party and (ii) such party must receive from the third party an executed confidentiality agreement on terms no less favorable to such party than those in the confidentiality agreement between Mast and Savara, with such new confidentiality agreement to contain customary limitations on the use and disclosure of all nonpublic written and oral information furnished to such third party on or behalf of such party (as well as customary standstill provisions if Mast is the party entering into a new confidentiality agreement with the third party); and

substantially contemporaneous with furnishing of any information to a third party, such party furnishes the same information to the other party to the extent not previously furnished.

Termination of the Merger Agreement (see page 154)

Either Mast or Savara can terminate the Merger Agreement under certain circumstances, which would prevent the merger from being consummated.

Termination Fee (see page 156)

If the Merger Agreement is terminated under certain circumstances, Mast will be required to pay Savara a termination fee of $1.8 million, Savara will be required to pay Mast a termination fee of $2.5 million, or, Mast or Savara will be required in some circumstances, to reimburse the other party for expenses incurred in connection with the merger, up to a maximum of $250,000.

Voting Agreements (see page 158)

Certain Savara securityholders that beneficially own or control approximately 30% of the voting power of Savara s outstanding capital stock on an as-converted to common stock basis as of December 31, 2016 entered into voting agreements pursuant to which, among other things, they agreed to vote all of their shares of Savara capital stock in favor of the adoption of the Merger Agreement and the approval of the merger and the other transactions contemplated by the Merger Agreement, and any other matter that is reasonably necessary to facilitate the consummation of the merger and the other transactions contemplated by the Merger Agreement, against any Acquisition Proposal, as defined in the Merger Agreement, and against any other matter that would reasonably be expected to impede, interfere

with, delay, postpone or adversely affect the merger or any of the transactions contemplated by the Merger Agreement.

Certain Mast securityholders that beneficially own or control less than one percent of the outstanding shares of Mast common stock as of March 2, 2017 entered into voting agreements pursuant to which, among other

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things, they agreed to vote all their shares of Mast capital stock in favor of the adoption of the Merger Agreement and the approval of the merger and the other transactions contemplated by the Merger Agreement, and any other matter that is reasonably necessary to facilitate the consummation of the merger and the other transactions contemplated by the Merger Agreement, against any Acquisition Proposal, as defined in the Merger Agreement, and against any other matter that would reasonably be expected to impede, interfere with, delay, postpone or adversely affect the merger or any of the transactions contemplated by the Merger Agreement.

Lock-Up Agreements (see page 158)

The Savara securityholders and Mast securityholders that entered into voting agreements also entered into lock-up agreements with Savara and Mast, respectively, pursuant to which they agreed not to, except in limited circumstances, (i) offer, pledge, sell, contract to sell, sell any option or contract purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, make any short sale or otherwise transfer or dispose of or lend any shares of Mast common stock or securities convertible into, exercisable or exchangeable for or that represent the right to receive Mast common stock whether then owned or thereafter acquired (the Securities), (ii) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the Securities, (iii) make any demanded for or exercise any right with respect to the registration of any Mast common stock or any security convertible into or exercisable or exchangeable for Mast common stock or (iv) publicly disclose the intention to do any of the foregoing (each such restriction, the lock-up restrictions).

The lock-up restrictions automatically terminate with respect to one-third of the Securities on each of (i) the six-month anniversary of the date of the closing of the merger, (ii) the eight-month anniversary of the date of the closing of the merger and (iii) the ten-month anniversary of the date of the closing of the merger.

Management Following the Merger (see page 245)

Effective as of the closing of the merger, Mast s executive officers are expected to be the current Savara management team:

Name	**Title**
Robert Neville	Chief Executive Officer
Taneli Jouhikainen	President and Chief Operating Officer
David Lowrance	Chief Financial Officer

Interests of Certain Directors, Officers and Affiliates of Mast and Savara (see pages 117 and 122)

When considering the recommendation of the Mast Board, you should be aware that Mast s executive officers and directors have interests in the merger that are different from, or in addition to, your interests as a stockholder. The Mast Board was aware of and considered these interests, among other matters, in evaluating and negotiating the merger agreement and the merger, and in recommending that the merger agreement be adopted by the stockholders of Mast. For example, Mast previously entered into severance agreements with its named executive officers that provide them with cash severance payments, cash payments intended to cover certain health insurance costs and the acceleration of their outstanding equity awards in the event their employment is terminated without cause following a change of control of Mast. In addition, certain of Mast s directors and executive officers have options and RSUs, which shall RSU s vest immediately prior to the consummation of the merger, and certain officers of Mast are eligible for a cash bonus award upon the consummation of the merger. None of Mast s directors and executive officers are expected to continue with the combined company following the merger except for two members of the Mast Board who are

expected to continue as directors of Mast upon the closing of the merger. All of Mast s directors and executive officers are entitled to certain indemnification and liability insurance coverage pursuant to the terms of the Merger Agreement and coverage pursuant to insurance policies maintained by Mast.

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As of March 2, 2017, the directors and executive officers of Mast, together with their affiliates, owned less than one percent of the outstanding shares of Mast common stock, and each of the Mast directors and executive officers has entered into a voting agreement in connection with the merger. The voting agreement is discussed in greater detail in the section entitled Agreements Related to the Merger Voting Agreements in this proxy statement/prospectus/information statement.

In considering the recommendation of the Savara Board with respect to approving the merger and related transactions by written consent, Savara stockholders should be aware that certain members of the board of directors and executive officers of Savara have interests in the merger that may be different from, or in addition to, interests they have as Savara stockholders. For example, certain of Savara s directors and executive officers have options or restricted stock, subject to vesting, which options to purchase shares of Savara common stock which will be converted into and become options to purchase shares of Mast common stock, Savara s directors and executive officers are expected to become directors and executive officers of Mast upon the closing of the merger and all of Savara s directors and executive officers are entitled to certain indemnification and liability insurance coverage pursuant to the terms of the Merger Agreement.

As of December 31, 2016, the directors and executive officers of Savara, together with their affiliates, owned approximately 8.65% of the outstanding shares of Savara capital stock, on an as converted to common stock basis. Savara officers and directors, and Serenova A/S, have also entered into a voting agreement in connection with the merger. The voting agreements are discussed in greater detail in the section entitled Agreements Related to the Merger Voting Agreements in this proxy statement/prospectus/information statement.

Considerations with Respect to U.S. Federal Income Tax Consequences of the Merger (see page 127)

Each of Mast and Savara intends the merger to qualify as a reorganization within the meaning of Section 368(a) of the Code. Assuming the merger qualifies as a reorganization, in general, and subject to the qualifications and limitations set forth in the section entitled The Merger Considerations with Respect to U.S. Federal Income Tax Consequences of the Merger, the material U.S. federal income tax consequences to U.S. Holders (as defined herein) of Savara common stock should be as follows:

- a Savara stockholder should not recognize gain or loss upon the exchange of Savara common stock for Mast common stock pursuant to the merger, except to the extent of cash received in lieu of a fractional share of Mast common stock as described below;

- a Savara stockholder s aggregate tax basis for the shares of Mast common stock received in the merger (including any fractional share interest for which cash is received) should equal the stockholder s aggregate tax basis in the shares of Savara common stock surrendered upon completion of the merger;

- the holding period of the shares of Mast common stock received by a Savara stockholder in the merger should include the holding period of the shares of Savara common stock surrendered in exchange therefor provided the surrendered Savara common stock is held as a capital asset (generally, property held for investment) at the time of the merger; and

a Savara stockholder who receives cash in lieu of a fractional share of Mast common stock in the merger should recognize capital gain or loss in an amount equal to the difference between the amount of cash received instead of a fractional share and the stockholder s tax basis allocable to such fractional share.

Completion of the merger, however, is not conditioned upon a receipt of an opinion from counsel that the merger qualifies as a reorganization, and the merger will occur even if the merger does not qualify as a

reorganization and Savara stockholders are fully taxed on the shares of Mast common stock they receive in the merger. Moreover, the tax opinions received by Savara and Mast are based on representation letters delivered by Savara and Mast as to factual matters and on certain factual assumptions, including with respect to the number of Savara shares held by, and the amount of consideration payable to, Savara stockholders, if any, that exercise dissenters rights. These representation letters will be delivered as of the effective date of this registration statement. If any of the representations or assumptions on which the tax opinions are based proves incorrect, including because there is a change in facts or law between the date of the representation letters and the closing date of the merger, the U.S. federal income tax consequences of the merger described above may be adversely affected.

Tax matters are very complicated, and the tax consequences of the merger to a particular Savara stockholder will depend on such stockholder s circumstances. Accordingly, you should consult your tax advisor for a full understanding of the tax consequences of the merger to you, including the applicability and effect of federal, state, local and non-U.S. income and other tax laws. For more information, please see the section entitled The Merger Considerations with Respect to U.S. Federal Income Tax Consequences of the Merger beginning on page 127.

Risk Factors (see page 24)

Both Mast and Savara are subject to various risks associated with their businesses and their industries. In addition, the merger, including the possibility that the merger may not be completed, poses a number of risks to each company and its respective stockholders, including the following risks:

- The exchange ratio is not adjustable based on the market price of Mast common stock so the merger consideration at the closing may have a greater or lesser value than at the time the Merger Agreement was signed;
- Failure to complete the merger may result in Mast and Savara paying a termination fee or expenses to the other and could harm the common stock price of Mast and the future business, liquidity and operations of each company;
- If the conditions to the merger are not met, the merger may not occur;
- The merger may be completed even though material adverse changes may result from the announcement of the merger, industry-wide changes and other causes;
- Some Mast and Savara executive officers and directors have interests in the merger that are different from yours and that may influence them to support or approve the merger without regard to your interests;
- The market price of the combined organization common stock may decline as a result of the merger;

Mast and Savara stockholders may not realize a benefit from the merger commensurate with the ownership dilution they will experience in connection with the merger;

During the pendency of the merger, Mast and Savara may not be able to enter into a business combination with another party at a favorable price (subject to certain exceptions) because of restrictions in the Merger Agreement, which could adversely affect their respective businesses;

Certain provisions of the Merger Agreement may discourage third parties from submitting alternative takeover proposals, including proposals that may be superior to the arrangements contemplated by the Merger Agreement; and

Because the lack of a public market for Savara shares makes it difficult to evaluate the fairness of the merger, the stockholders of Savara may receive consideration in the merger that is less than the fair market value of the Savara shares or Mast may pay more than the fair market value of the Savara shares.

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These risks and other risks are discussed in greater detail under the section entitled Risk Factors in this proxy statement/prospectus/information statement. Mast and Savara both encourage you to read and consider all of these risks carefully.

Regulatory Approvals (see page 127)

In the United States, Mast must comply with applicable federal and state securities laws and the rules and regulations of the NYSE MKT in connection with the issuance of shares of Mast common stock and the filing of this proxy statement/prospectus/information statement with the SEC. As of the date hereof, the registration statement of which this proxy statement/prospectus/information statement is a part has not become effective.

National Securities Exchange Listing (see page 131)

Prior to consummation of the merger, Mast intends to file an initial listing application for the combined company with the NYSE MKT or another national securities exchange. If such application is accepted, Mast anticipates that Mast s common stock will be listed on the NYSE MKT or such other national securities exchange following the closing of the merger under the trading symbol SVRA.

Anticipated Accounting Treatment (see page 131)

The merger will be treated by Mast as a reverse merger under the acquisition method of accounting in accordance with accounting principles generally accepted in the United States. For accounting purposes, Savara is considered to be acquiring Mast in the merger.

Appraisal Rights and Dissenters Rights (see page 131)

Holders of Mast common stock are not entitled to appraisal rights in connection with the merger. Savara stockholders are entitled to appraisal rights in connection with the merger under Delaware law. For more information about such rights, see the provisions of Section 262 of the Delaware General Corporation Law, or the DGCL, attached hereto as *Annex C*, and the section entitled The Merger Appraisal Rights and Dissenters Rights in this proxy statement/prospectus/information statement.

Comparison of Stockholder Rights (see page 280)

Both Mast and Savara are incorporated under the laws of the State of Delaware and, accordingly, the rights of the stockholders of each are currently, and will continue to be, governed by the DGCL. If the merger is completed, Savara stockholders will become stockholders of Mast, and their rights will be governed by the DGCL, the bylaws of Mast and, assuming Mast Proposals No. 2 and 3 are approved by Mast stockholders at the Mast special meeting, the amended and restated certificate of incorporation of Mast attached to this proxy statement/prospectus/information statement as *Annex D*. The rights of Mast stockholders contained in the amended and restated certificate of incorporation and bylaws of Mast differ from the rights of Savara stockholders under the amended and restated certificate of incorporation and bylaws of Savara, as more fully described under the section entitled Comparison of Rights of Holders of Mast Stock and Savara Stock in this proxy statement/prospectus/information statement.

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SELECTED HISTORICAL AND UNAUDITED PRO FORMA

CONDENSED COMBINED FINANCIAL INFORMATION AND DATA

The following tables present summary historical financial data for Mast and Savara, summary unaudited pro forma condensed combined financial data for Mast and Savara, and comparative historical and unaudited pro forma per share data for Mast and Savara.

Selected Historical Consolidated Financial Data of Mast

The selected consolidated statements of operations data for the years ended December 31, 2016, 2015 and 2014 and the selected consolidated balance sheet data as of December 31, 2016 and 2015 are derived from Mast s audited consolidated financial statements included elsewhere in this proxy statement/prospectus/information statement. The consolidated statements of operations data for the years ended December 31, 2013 and 2012 and the balance sheet data as of December 31, 2014, 2013 and 2012 are derived from our audited consolidated financial statements that are not included in this proxy statement/prospectus/information statement. Mast s historical results are not necessarily indicative of results that may be expected in any future period.

The selected historical consolidated financial data below should be read in conjunction with the section titled Mast Management s Discussion and Analysis of Financial Condition and Results of Operations, Risk Factors Risks Related to Mast and Mast s consolidated financial statements and related notes included elsewhere in this proxy statement/prospectus/information statement.

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Condensed Consolidated Statements of Operations and Comprehensive Loss

(in thousands, except for share and per share data)

	Years ended December 31,				
	2016	2015	2014	2013	2012
	(in thousands, except per share amounts)				
Revenues	$ 128	$	$	$	$
Operating expenses:					
Research and development	20,793	28,264	19,435	12,902	8,088
Selling, general and administrative	9,342	10,963	9,488	8,518	7,519
Transaction-related expenses	301		271	80	(69)
Impairment of IPR&D	6,049				
Depreciation and amortization	99	146	85	39	90
Total operating expenses	36,584	39,373	29,279	21,539	15,628
Loss from operations	(36,456)	(39,373)	(29,279)	(21,539)	(15,628)
Interest income	122	130	69	60	74
Interest expense	(2,132)	(603)			
Other income/(expense), net	(43)	4	508	(1)	(5)
Loss before income taxes	(38,509)	(39,842)	(28,702)	(21,480)	(15,559)
Income tax benefit	2,409				
Net loss	$ (36,100)	$ (39,842)	$ (28,702)	$ (21,480)	$ (15,559)
Net loss per share - basic and diluted	$ (0.17)	$ (0.25)	$ (0.23)	$ (0.28)	$ (0.33)
Weighted average shares outstanding - basic and diluted	208,484,370	162,219,116	122,409,183	76,585,752	47,641,043
Comprehensive Loss:					
Net loss	$ (36,100)	$ (39,842)	$ (28,702)	$ (21,480)	$ (15,559)
Other comprehensive income/(loss)	18	8	(4)	(19)	
Comprehensive loss	$ (36,082)	$ (39,834)	$ (28,706)	$ (21,499)	$ (15,559)

Consolidated Balance Sheet Data

	At December 31,				
	2016	2015	2014	2013	2012
	(in thousands)				
Consolidated Balance Sheet Data:					
Cash, cash equivalents and investment securities	11,282	40,981	57,289	44,392	36,511
Working capital	7,319	19,079	49,965	40,695	34,603
Total assets	17,922	54,217	70,500	55,250	46,972
Total stockholders equity	9,759	23,889	58,658	47,808	41,792

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Selected Historical Consolidated Financial Data of Savara

The selected consolidated statements of operations data for the years ended December 31, 2016 and 2015 and the selected consolidated balance sheet data as of December 31, 2016 and 2015 are derived from Savara s audited consolidated financial statements included elsewhere in this proxy statement/prospectus/information statement. Savara s historical results are not necessarily indicative of the results that may be expected in any future period.

The selected historical consolidated financial data below should be read in conjunction with the section titled Savara Management s Discussion and Analysis of Financial Condition and Results of Operations, Risk Factors Risks Related to Savara s Capital Requirements and Financial Condition and Savara s consolidated financial statements and related notes included elsewhere in this proxy statement/prospectus/information statement.

Consolidated Statements of Operations Data:

	Year Ended December 31,	
	2016	2015
	(in thousands)	
Grant Revenue	$ 400	$ 54
Operating expenses:		
Research and development	8,182	4,321
General and administrative	2,820	1,650
Depreciation	346	6
Total operating expenses	11,348	5,977
Loss from operations	(10,948)	(5,923)
Other expense	332	3,076
Income tax (benefit)	(357)	
Net loss	$ (10,923)	$ (8,999)
Net loss per common share, basic and diluted	$ (3.29)	$ (5.55)
Weighted average shares used in computing net loss per common share, basic and diluted	3,348,647	1,653,259

Consolidated Balance Sheet Data:

	As of December 31,	
	2016	2015
	(in thousands)	
Cash	$ 13,373	$ 16,683

Working capital	11,158	15,680
Total assets	28,934	17,854
Convertible promissory notes	3,448	
Accumulated deficit	(38,406)	(27,483)
Total stockholders equity/(deficit)	(35,875)	(27,328)

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Selected Unaudited Pro Forma Condensed Combined Financial Data of Mast and Savara

The following information does not give effect to the proposed Reverse Stock Split of Mast common stock described in Mast Proposal No. 2.

The following selected unaudited pro forma condensed combined financial information has been prepared to reflect the acquisitions of Mast and Serendex by Savara using the acquisition method of accounting. On January 6, 2017, Savara and Mast entered into an Agreement and Plan of Merger and Reorganization pursuant to which a wholly owned subsidiary of Mast will merge with and into Savara, with Savara becoming a wholly owned subsidiary of Mast and the surviving corporation of the merger. For accounting purposes, Savara is considered to be acquiring Mast in the merger. In addition, on July 15, 2016, Savara completed its acquisition of Serendex.

The unaudited pro forma condensed combined financial statements were prepared in accordance with the regulations of the Securities and Exchange Commission (SEC). The unaudited pro forma condensed combined balance sheet as of December 31, 2016 is presented as if the merger had been completed on December 31, 2016. The unaudited pro forma condensed combined statements of operations for the year ended December 31, 2016 assumes that both the merger and Savara s acquisition of Serendex took place as of January 1, 2016, and combines the historical results of Mast and Savara and the pre-acquisition historical results of Serendex.

The selected unaudited pro forma condensed combined financial data are presented for illustrative purposes only and are not necessarily indicative of the combined financial position or results of operations of future periods or the results that actually would have been realized had the entities been a single entity during these periods. The selected unaudited pro forma condensed combined financial data as of and for the year ended December 31, 2016 are derived from the unaudited pro forma condensed combined financial information and should be read in conjunction with that information. For more information, please see the section titled Unaudited Pro Forma Condensed Combined Financial Statements in this proxy statement/prospectus/information statement.

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The unaudited pro forma condensed combined financial statements assume that, at the effective time of the merger, each share of Savara common stock will convert into the right to receive approximately 41 shares of Mast common stock, subject to adjustment to account for the effect of the proposed Reverse Stock Split of Mast common stock to be implemented prior to the consummation of the merger. The estimated exchange ratio calculation used herein is based upon Mast s capitalization numbers immediately prior to the date of this proxy statement/prospectus/information statement, and will be adjusted to account for the issuance of any additional shares of Mast common stock prior to the consummation of the merger.

	Year Ended December 31, 2016 (in thousands except per share amounts)
Unaudited Pro Forma Combined Statement of Operations Data:	
Grant revenue	$ 528
Operating expenses:	
Research and development	33,077
General and administrative	14,510
Impairment of IPR&D	6,049
Transaction related costs	
Depreciation and amortization	445
Total operating expenses	54,081
Loss from operations	(53,553)
Interest and other income (expense), net	(2,443)
Loss before income taxes	$ (55,996)
Income taxes	2,766
Net loss	(53,230)
Accretion of redeemable convertible preferred stock	(94)
Net loss attributable to common stockholders	(53,324)
Basic and diluted net loss per share	$ (0.06)

	As of December 31, 2016 (in thousands)
Unaudited Pro Forma Combined Balance Sheet Data:	
Cash and cash equivalents	$ 21,915
Working capital	13,145
Total assets	75,176

Total stockholders equity	37,785

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Comparative Historical and Unaudited Pro Forma Per Share Data

The information below reflects the historical net loss and book value per share of Mast common stock and the historical net loss and book value per share of Savara common stock in comparison with the unaudited pro forma net loss and book value per share after giving effect to the proposed merger of Mast with Savara on a pro forma basis. The unaudited pro forma net loss and book value per share does not give effect to the proposed reverse stock split of Mast common stock described in Mast Proposal No. 2.

You should read the tables below in conjunction with the audited financial statements of Mast included in this proxy statement/prospectus/information statement and the audited financial statements of Savara included in this proxy statement/prospectus/information statement and the related notes and the unaudited pro forma condensed combined financial information and notes related to such financial statements included elsewhere in this proxy statement/prospectus/information statement.

MAST

	Year Ended December 31, 2016
Historical Per Common Share Data:	
Basic and diluted net loss per share	$ (0.17)
Tangible book value per share	0.02

SAVARA

	Year Ended December 31, 2016
Historical Per Common Share Data:	
Basic and diluted net loss per share	$ (3.29)
Tangible book value per share	(1.65)

MAST AND SAVARA

	Year Ended December 31, 2016
Combined Company Pro Forma Data:	
Basic and diluted net loss per share	$ (0.06)
Tangible book value per share	(0.01)

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MARKET PRICE AND DIVIDEND INFORMATION

Market Information

Mast s common stock trades under the symbol MSTX on the NYSE MKT equities market. The following table sets forth the high and low sale prices for Mast common stock in each full quarterly period within the three most recent fiscal years.

	Sales Price	
	High	**Low**
Year Ended December 31, 2014		
First Quarter	$ 1.10	$ 0.45
Second Quarter	0.73	0.52
Third Quarter	0.69	0.53
Fourth Quarter	0.60	0.40
Year Ended December 31, 2015		
First Quarter	$ 0.63	$ 0.42
Second Quarter	0.58	0.46
Third Quarter	0.60	0.38
Fourth Quarter	0.59	0.37
Year Ended December 31, 2016		
First Quarter	$ 0.50	$ 0.21
Second Quarter	0.48	0.27
Third Quarter	0.71	0.09
Fourth Quarter	0.16	0.07
Year Ended December 31, 2017		
First Quarter (through March 9, 2017)	$ 0.23	$ 0.09

On March 9, 2017, the last reported sale price of Mast s common stock on the NYSE MKT was $0.11 per share. As of March 2, 2017, Mast had approximately 116 record holders of its common stock. The number of beneficial owners is substantially greater than the number of record holders because a large majority of Mast s outstanding common stock is held of record through brokerage firms in street name.

Dividend Policy

Mast has never declared or paid any cash dividends on its common stock and does not anticipate declaring or paying any cash dividends on its common stock in the foreseeable future. Mast expects to retain all available funds and any future earnings to support operations and fund the development and growth of its business.

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RISK FACTORS

The combined organization will be faced with a market environment that cannot be predicted and that involves significant risks, many of which will be beyond its control. In addition to the other information contained in this proxy statement/prospectus/information statement, you should carefully consider the material risks described below before deciding how to vote your shares of stock. In addition, you should read and consider the risks associated with the business of Mast because these risks may also affect the combined company these risks can be found in Mast s Annual Report on Form 10-K, as updated by subsequent Quarterly Reports on Form 10-Q, all of which are filed with the SEC. You should also read and consider the other information in this proxy statement/prospectus/information statement and the other documents incorporated by reference into this proxy statement/prospectus/information statement. Please see the section entitled Where You Can Find More Information in this proxy statement/prospectus/information statement.

Risks Related to the Merger

The exchange ratio is not adjustable based on the market price of Mast common stock so the merger consideration at the closing may have a greater or lesser value than at the time the Merger Agreement was signed.

The Merger Agreement has set the exchange ratio for the Savara common stock, and the exchange ratio is only adjustable upward or downward under certain circumstances as described in The Merger Merger Consideration and Adjustment. Any changes in the market price of Mast common stock before the completion of the merger will not affect the number of shares Savara securityholders will be entitled to receive pursuant to the Merger Agreement. Therefore, if before the completion of the merger the market price of Mast common stock declines from the market price on the date of the Merger Agreement, then Savara securityholders could receive merger consideration with substantially lower value. Similarly, if before the completion of the merger the market price of Mast common stock increases from the market price on the date of the Merger Agreement, then Savara securityholders could receive merger consideration with substantially more value for their shares of Savara capital stock than the parties had negotiated for in the establishment of the exchange ratio. Because the exchange ratio does not adjust as a result of changes in the value of Mast common stock, for each one percentage point that the market value of Mast common stock rises or declines, there is a corresponding one percentage point rise or decline, respectively, in the value of the total merger consideration issued to Savara securityholders.

Failure to complete the merger may result in Mast and Savara paying a termination fee or expenses to the other party and could harm the common stock price of Mast and future business and operations of each company.

If the merger is not completed, Mast and Savara are subject to the following risks:

- if the Merger Agreement is terminated under certain circumstances, Mast will be required to pay Savara a termination fee of $1.8 million;

- if the Merger Agreement is terminated under certain circumstances, Savara will be required to pay Mast a termination fee of $2.5 million;

the price of Mast stock may decline and remain volatile, which may result in Mast being delisted from the NYSE MKT; and

costs related to the merger, such as legal and accounting fees, and with respect to Mast, tail insurance premiums, which Mast and Savara estimate will total approximately $2.6 million and $1.5 million, respectively, some of which must be paid even if the merger is not completed.

In addition, if the Merger Agreement is terminated and the Mast Board or Savara Board determines to seek another business combination, there can be no assurance that either Mast or Savara will be able to find a partner willing to provide equivalent or more attractive strategic alternative than the proposed merger.

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If the conditions to the merger are not met, the merger may not occur.

Even if the merger is approved by the stockholders of Mast and Savara, specified conditions must be satisfied or waived to complete the merger. These conditions are set forth in the Merger Agreement and described in the section entitled The Merger Agreement Conditions to the Completion of the Merger in this proxy statement/prospectus/information statement. Mast and Savara cannot assure you that all of the conditions will be satisfied or waived. If the conditions are not satisfied or waived, the merger may not occur or will be delayed, and Mast and Savara each may lose some or all of the intended benefits of the merger.

The merger may be completed even though material adverse changes may result from the announcement of the merger, industry-wide changes and other causes.

In general, either Mast or Savara can refuse to complete the merger if there is a material adverse change affecting the other party between the date of the Merger Agreement, and the closing. However, certain types of changes do not permit either party to refuse to complete the merger, even if such change could be said to have a material adverse effect on Mast or Savara, including:

- any effect, change, event, circumstance or development in the conditions generally affecting the industries in which Savara and Mast operate or the United States or global economy or capital markets as a whole;
- any natural disaster or any acts of terrorism, sabotage, military action or war or any escalation of worsening thereof;
- any failure by Mast or Savara to meet internal projections or forecasts or third party revenue or earnings predictions for any period ending on or after January 6, 2017;
- any changes in GAAP or applicable legal requirements after January 6, 2017; or
- with respect to Mast, any change in the price or trading volume of Mast Common Stock.

If adverse changes occur and Mast and Savara still complete the merger, the combined organization stock price may suffer. This in turn may reduce the value of the merger to the stockholders of Mast, Savara or both.

Some Mast and Savara executive officers and directors have interests in the merger that are different from yours and that may influence them to support or approve the merger without regard to your interests.

Certain officers and directors of Mast and Savara participate in arrangements that provide them with interests in the merger that are different from yours, including, among others, the continued service as an officer or director of the combined organization, severance benefits, cash and equity bonuses contingent upon the closing of the merger, continued indemnification and the potential ability to sell an increased number of shares of common stock of the combined organization in accordance with Rule 144 under the Securities Act of 1933, as amended, or the Securities Act. For example, Mast previously entered into severance agreements with its named executive officers that provide them with cash severance payments, cash payments intended to cover certain health insurance costs and the

acceleration of their outstanding equity awards in the event their employment is terminated without cause following a change of control of Mast. In addition, certain of Mast s directors and executive officers have options and RSUs, which RSUs shall vest immediately prior to the date the merger is consummated, and certain officers of Mast are eligible for a cash bonus award upon the closing of the merger. Two members of the Mast Board are expected to continue as directors of Mast upon the closing of the merger, and all of Mast s directors and executive officers are entitled to certain indemnification and liability insurance coverage pursuant to the terms of the Merger Agreement and coverage pursuant to insurance policies maintained by Mast.

Based on the terms of their respective severance agreements, outstanding equity awards and Mast s January 2017 incentive awards, Mast s named executive officers will be entitled to receive a total value of approximately $2.5 million (collectively, not individually) in connection with the consummation of the merger and the associated termination of their employment from Mast, based on data available as of March 2, 2017.

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The market price of Mast common stock following the merger may decline as a result of the merger.

The market price of Mast common stock may decline as a result of the merger for a number of reasons including if:

- investors react negatively to the prospects of the combined organization s business and prospects from the merger;
- the effect of the merger on the combined organization s business and prospects is not consistent with the expectations of financial or industry analysts; or
- the combined organization does not achieve the perceived benefits of the merger as rapidly or to the extent anticipated by financial or industry analysts.

Mast and Savara stockholders may not realize a benefit from the merger commensurate with the ownership dilution they will experience in connection with the merger.

If the combined organization is unable to realize the full strategic and financial benefits currently anticipated from the merger, Mast and Savara stockholders will have experienced substantial dilution of their ownership interests in their respective companies without receiving any commensurate benefit, or only receiving part of the commensurate benefit to the extent the combined organization is able to realize only part of the strategic and financial benefits currently anticipated from the merger.

During the pendency of the merger, Mast and Savara may not be able to enter into a business combination with another party at a favorable price because of restrictions in the Merger Agreement, which could adversely affect their respective businesses.

Covenants in the Merger Agreement impede the ability of Mast and Savara to make acquisitions, subject to certain exceptions relating to fiduciaries duties, as set forth below, or complete other transactions that are not in the ordinary course of business pending completion of the merger. As a result, if the merger is not completed, the parties may be at a disadvantage to their competitors during that period. In addition, while the Merger Agreement is in effect, each party is generally prohibited from soliciting, initiating, encouraging or entering into certain extraordinary transactions, such as a merger, sale of assets or other business combination outside the ordinary course of business, with any third party, subject to certain exceptions described below. These restrictions apply even if such transactions could be favorable to such party s stockholders.

Certain provisions of the Merger Agreement may discourage third parties from submitting alternative takeover proposals, including proposals that may be superior to the arrangements contemplated by the Merger Agreement.

The terms of the Merger Agreement prohibit each of Mast and Savara from soliciting alternative takeover proposals or cooperating with persons making unsolicited takeover proposals, except in limited circumstances when such party s board of directors determines in good faith that an unsolicited alternative takeover proposal is or is reasonably likely to lead to a superior takeover proposal and is reasonably capable of being consummated and that failure to cooperate with the proponent of the proposal is reasonably likely to result in a breach of the board s fiduciary duties. In addition, if Mast or Savara terminate the Merger Agreement under certain circumstances, including terminating because of a decision of a board of directors to recommend a superior proposal, Mast would be required to pay a termination fee of

$1.8 million to Savara or Savara would be required to pay a termination fee of $2.5 million to Mast, respectively. This termination fee may discourage third parties from submitting alternative takeover proposals to Mast or Savara or their stockholders, and may cause the respective boards of directors to be less inclined to recommend an alternative proposal.

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Because the lack of a public market for Savara shares makes it difficult to evaluate the fairness of the merger, the stockholders of Savara may receive consideration in the merger that is less than the fair market value of the Savara shares and/or Mast may pay more than the fair market value of the Savara shares.

The outstanding capital stock of Savara is privately held and is not traded in any public market. The lack of a public market makes it extremely difficult to determine the fair market value of Savara. Because the percentage of Mast equity to be issued to Savara securityholders was determined based on negotiations between the parties, it is possible that the value of the Mast common stock to be received by Savara securityholders will be less than the fair market value of Savara, or Mast may pay more than the aggregate fair market value for Savara.

If the merger does not qualify as a tax-free reorganization, the receipt of Mast common stock pursuant to the merger could be fully taxable to all Savara stockholders.

Each of Mast and Savara intends the merger to qualify as a reorganization within the meaning of Section 368(a) of the Code. However, completion of the merger is not conditioned upon receipt of an opinion from counsel dated as of the closing date that the merger qualifies as a reorganization. The tax opinions received by Savara and Mast as of the effective date of this proxy statement/prospectus/information statement are based on representation letters delivered as of such date by Savara and Mast pertaining to factual matters and on certain factual assumptions, including with respect to the number of Savara shares held by, and the amount of consideration payable to, Savara stockholders, if any, that exercise dissenters rights. If any of these assumptions or representations proves incorrect, for example, if there is a change in applicable law or if consideration paid to Savara stockholders exercising dissenters rights is significant, the merger could be fully taxable to all Savara stockholders. See the section entitled The Merger Considerations with Respect to U.S. Federal Income Tax Consequences of the Merger beginning on page 127.

The exchange ratio is subject to an upward adjustment to the extent that Mast s net cash at the effective time of the merger is less than zero dollars and as a result, Mast securityholders could own less of the combined company.

The exchange ratio is subject to an upward adjustment to the extent that Mast s net cash at the effective time of the merger is less than zero dollars ($0.00) and, as a result, Mast securityholders could own less, and Savara securityholders could own more, of the combined company. Certain of Mast s outstanding warrants provide that, in the event of certain fundamental transactions, whereby a person or group of persons acquires more than 50% of Mast s common stock, then, holders of such outstanding warrants may elect and require Mast to purchase the warrants held by such holder by making a cash payment in an amount equal to the Black-Scholes Value of the remaining unexercised portion of such holder s warrants. Mast does not believe that any cash payment is required pursuant to the terms of the warrants as a result of the Merger; provided, however, that if Mast shall be required pursuant to the terms of the warrants to make any cash payments or otherwise settle the warrants prior to closing, the exchange ratio could be adjusted to adversely impact the ownership of Mast stockholders of the combined company.

Risks Related to Mast

Risks Related to Mast s Capital Requirements, Finances and Operations

Mast is a clinical-stage company with no drug products approved for commercial sale, Mast has incurred net losses since Mast s inception, Mast expects to incur substantial losses and negative operating cash flow for the foreseeable future, and Mast needs additional funding to continue to conduct its operations and advance development of its product candidates.

Mast is a clinical-stage biopharmaceutical company and has not generated sustainable revenue from operations or been profitable since inception, and it may never achieve profitability. Mast has devoted its resources to acquiring and developing proprietary product candidates, but such product candidates cannot be

marketed until clinical development is completed and governmental approvals have been obtained. None of its product candidates has been approved for sale by any regulatory agency or is available for commercial sale and each will require significant additional capital to advance their development toward regulatory approval for commercial sale.

For the years ended December 31, 2016, 2015 and 2014, Mast incurred losses from operations of $36.5 million, $39.4 million and $29.3 million, respectively, and its net cash used in operating activities was $37.3 million $32.9 million and $24.6 million, respectively. At December 31, 2016, Mast had an accumulated deficit of $311.1 million, its cash, cash equivalents and investment securities were $11.3 million, and its working capital was $7.3 million. Mast expects to continue to incur substantial operating losses for the next several years as Mast advances its product candidates, which are in intermediary to early stages of development, through clinical studies and other development activities necessary to seek approval from the FDA and regulatory authorities outside of the U.S. to commercialize them. Accordingly, there is no current source of revenue from operations, much less profits, to sustain Mast s present activities. Further, no revenue from operations will likely be available until, and unless, one of Mast s product candidates is approved by the FDA or another regulatory agency and successfully marketed, or Mast enters into an arrangement that provides for licensing revenue or other partnering-related funding, outcomes which Mast may not achieve.

Mast estimates that its existing capital resources are sufficient to fund its current and planned operations into the second quarter of 2017. Mast is focused on managing its operating expenses and maintaining adequate cash to run its business through consummation of the proposed merger with Savara. There can be no assurances that Mast will be successful in completing the merger with Savara or in maintaining or raising sufficient additional capital to fund continued operations if the merger is not consummated.

Mast cannot predict the extent of its future operating losses and accumulated deficit, and Mast may never generate sufficient revenues to achieve or sustain profitability. To become and remain profitable, Mast must succeed in developing and obtaining required regulatory approvals and commercializing its product candidates. This will require Mast to succeed in a range of challenging activities, and many aspects of drug development are inherently unpredictable. Mast may never succeed in obtaining the FDA s or another regulatory authority s approval to market its product candidates or otherwise generate revenues sufficient to achieve profitability.

There is substantial doubt as to Mast s ability to continue as a going concern.

At December 31, 2016, Mast s cash, cash equivalents and investment securities were $11.3 million and its working capital was $7.3 million. Mast continues to incur significant operating losses, it does not believe its capital resources as of December 31, 2016 will be sufficient to fund its planned operations for the next 12 months, and it may not be able to raise additional capital as and when needed. These uncertainties raise substantial doubt regarding Mast s ability to continue as a going concern.

As more fully discussed in Note 1 to the condensed consolidated financial statements included in this proxy statement/prospectus/information statement and Mast s Management s Discussion and Analysis of Financial Condition and Results of Operations of this report, if it is unable to complete the proposed merger with Savara, Mast may elect to, among other things, attempt to complete another strategic transaction like the proposed merger, attempt to sell or otherwise dispose of Mast s various assets, or continue to operate its business, focusing on advancing the development of AIR001. If the Mast Board decides to dissolve the company 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 assurance as to the amount or timing of available cash left to distribute to Mast s stockholders after paying its debts and other obligations and setting aside funds for potential future claims. If Mast attempts to continue to operate

its business, focusing on development of AIR001, Mast would need to raise significant additional funds to fund its operations and execute on its business strategy and Mast may not be successful in those efforts.

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Mast has historically been able to raise capital through equity offerings; however, there is no assurance that Mast will be successful in that regard in the future or that it will be able to obtain sufficient, or any, additional capital on acceptable terms, or at all. Further, Mast has based its estimated capital needs on assumptions that may prove to be wrong and cannot assure you that estimates and assumptions will not change. For example, Mast is currently assuming that the investigator-sponsored clinical studies of AIR001 it is supporting will be completed without its commitment of resources beyond what Mast s current agreements require. If Mast s estimated funding needs change and/or sufficient capital is not available, Mast may be required to further reduce the scope of, delay, or eliminate its ongoing and planned product development activities, any of which could have a material adverse effect on Mast s business and may impair its intangible assets. In addition, Mast has incurred and expects to incur significant costs related to the proposed merger, such as financial advisor, legal and accounting fees, some of which must be paid even if the merger is not completed, and the extent of these costs may exceed Mast s current estimates.

The consolidated financial statements of Mast included in this proxy statement/prospectus/information statement have been prepared on a going concern basis, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. The financial statements of Mast do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of the uncertainty related to Mast s ability to continue as a going concern.

Mast s product candidates are at intermediary to early stages of development, the success of Mast s business currently is dependent largely on its ability to advance development of AIR001 for the treatment of HFpEF, and if clinical studies of AIR001 are not successful, Mast s business, financial condition and results of operations may be materially adversely affected and the price of Mast s common stock may decline.

None of Mast s product candidates have been approved for sale by any regulatory agency or is available for commercial sale. Mast is focusing its resources primarily on the development of AIR001. Accordingly, the success of Mast s business currently is highly dependent on its ability, or that of a future partner, to successfully develop, obtain regulatory approval for and then successfully commercialize AIR001 and Mast s efforts, or those of a future partner, in this regard may prove unsuccessful. Ongoing clinical studies of AIR001 may not demonstrate the safety and efficacy necessary to support continued clinical development. In addition, continued development of AIR001 will require significant additional research, formulation and manufacture development, and extensive clinical testing prior seeking regulatory approval for commercial sale and will take several years. The drug development and regulatory approval process is subject to many risks, including the risks discussed in other risk factors below, and AIR001 may never receive marketing approval from the FDA or any regulatory agency. If the results or timing of Mast s clinical or nonclinical studies, regulatory filings, the regulatory process, regulatory developments, and other activities, actions or decisions related to AIR001 do not meet Mast s expectations or those of securities market participants, the market price of Mast s common stock could decline significantly. If any of Mast s product candidates is approved by the FDA or any foreign regulatory agency, Mast s ability to generate revenue will depend in substantial part on the extent to which that drug product is accepted by the medical community and reimbursed by third-party payers, as well as Mast s ability to market and sell the product and ensure that Mast s third-party manufacturers produce it in quantities sufficient to meet commercial demand, if any.

The terms of Mast s debt facility place restrictions on its operating and financial flexibility, and failure to comply with covenants or to satisfy certain conditions of the agreement governing the debt facility may result in acceleration of Mast s repayment obligations and foreclosure on its pledged assets, which could significantly harm Mast s liquidity, financial condition, operating results, business and prospects and cause the price of Mast s common stock to decline.

As of March 2, 2017, Mast had an outstanding principal balance of $3.0 million under its debt facility with Hercules Capital, Inc. and Hercules Technology III, L.P. (collectively referred to as Hercules) that is secured by a

lien covering substantially all of Mast s assets, excluding intellectual property, but including proceeds from the sale, licensing or disposition of Mast s intellectual property. The loan and security agreement governing the debt facility requires Mast to comply with a number of covenants (affirmative and negative), including restrictive covenants that limit Mast s ability to: incur additional indebtedness; encumber the collateral securing the loan; acquire, own or make investments; repurchase or redeem any class of stock or other equity interest; declare or pay any cash dividend or make a cash distribution on any class of stock or other equity interest; transfer a material portion of Mast s assets; acquire other businesses; and merge or consolidate with or into any other organization or otherwise suffer a change in control, in each case subject to exceptions. Mast s intellectual property also is subject to customary negative covenants. In addition, subject to limited exceptions, Hercules could declare an event of default upon the occurrence of any event that it interprets as having a material adverse effect upon Mast s business, operations, properties, assets, or financial condition or upon Mast s ability to perform or pay the secured obligations under the loan and security agreement or upon the collateral or Hercules liens on the collateral under the agreement, thereby requiring Mast to repay the loan immediately, together with a prepayment charge of up to 2% of the then outstanding principal balance and end-of-term charge of $712,500, or renegotiate the terms of the agreement. Although, in and of itself, the occurrence of adverse results or delays in any clinical study or the denial, delay or limitation of approval of or taking of any other regulatory action by the FDA or another governmental entity will not constitute a material adverse effect under Mast s loan and security agreement with Hercules, Hercules may determine that such an event together with contemporaneous events or circumstances constitutes a material adverse effect upon Mast s business, operations, properties, assets, or financial condition or upon Mast s ability to perform or pay the secured obligations under the loan and security agreement. If Mast defaults under the facility, Hercules may accelerate all of Mast s repayment obligations and, if Mast is unable to access funds to meet those obligations or to renegotiate Mast s agreement, Hercules could take control of Mast s pledged assets and Mast could immediately cease operations. If Mast were to renegotiate its agreement under such circumstances, the terms may be significantly less favorable to Mast. If Mast were liquidated, Hercules right to repayment would be senior to the rights of Mast s stockholders to receive any proceeds from the liquidation.

In connection with the proposed merger with Savara, because the merger would result in a change in control of Mast, and would otherwise trigger immediate repayment of the outstanding amount of all principal, accrued interest, accrued, unpaid fees and expenses, together with a prepayment charge of 2% of the principal balance and an end of term charge of $712,500 (referred to as the Change in Control Prepayment Provisions), in March 2017, Mast entered into an amendment to its loan and security agreement with Hercules. As a result of this amendment, the proposed merger with Savara would not trigger the Change in Control Repayment Provisions and the loan would remain in place upon its existing terms, including the January 1, 2019 scheduled maturity date, following consummation of the proposed merger provided the transaction is completed on or before April 30, 2017. However, beginning on the effective date of the amendment, the terms of the agreement, as amended, will include the minimum cash requirements described below. The amendment will become effective only if and as of the date of consummation of the merger with Savara. If the amendment becomes effective, the combined company would be required to maintain (a) at least $4 million of cash unless and until Mast, Savara or the combined company raised at least $6 million in net cash proceeds from equity and/or subordinated debt financings on or before April 30, 2017 and (b) at least $2 million of cash unless and until Mast, Savara or the combined company raised at least $20 million in net cash proceeds from equity and/or subordinated debt financings and/or other financing sources approved by Hercules (including grant amounts) on or before August 31, 2017. The combined company s failure to comply with these requirements would be an event of default, providing Hercules with the right to require immediate repayment in full of the loan and to exercise other remedies against combined company, including those described above.

Any declaration by Hercules of an event of default could significantly harm Mast s liquidity, financial condition, operating results, business, and prospects and cause the price of Mast s common stock to decline.

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Mast will need to obtain additional funding to pursue its current business strategy and continue as a going concern and Mast may not be able to obtain such funding on a timely basis, or on commercially reasonable terms, or at all. Any capital-raising transaction Mast is able to complete may result in substantial dilution to its existing stockholders, require Mast to relinquish significant rights, or restrict its operations.

As discussed above, based on its projected operating expenses and capital needs, Mast s cash, cash equivalents and investment securities as of December 31, 2016, Mast believes that its capital resources will be sufficient to fund its operations into the second quarter of 2017, but, if the proposed merger with Savara is not completed within the timeframe Mast currently expects, or at all, it would need additional capital to continue operations. In addition, Mast may utilize its current financial resources sooner than it currently expects if it incurs unanticipated expenses or the estimates and assumptions on which Mast has based its estimated capital needs prove to be wrong, in which case Mast s capital resources may not be sufficient to fund operations into the second quarter of 2017.

Although Mast was able to raise significant funds in the past through equity financings and a debt financing, the conditions of and Mast s access to capital markets are highly variable and adequate additional equity or debt financing may not be available to Mast in the future on acceptable terms, or on a timely basis, or at all. Further, each of these financing alternatives carries risks. Raising capital through the issuance of Mast s common stock, or securities convertible into or exercisable for Mast s common stock, may depress the market price of Mast s common stock and may substantially dilute Mast s existing stockholders. In addition, even if Mast were able to raise capital through the sale and issuance of its common stock, Mast may not have enough authorized common stock available to raise additional capital that would be sufficient to fund planned operations for the next 12 months. As of March 2, 2017, approximately 115 million of Mast s authorized shares of common stock were not outstanding or reserved for issuance under outstanding warrants and equity awards, equity incentive plans or other rights. Assuming a sale price of $0.12 per share, which was the closing price of Mast s common stock on March 2, 2017, gross proceeds from the sale of all 115 million available shares would be approximately $13.8 million, but any financing transaction available to Mast in the near-term likely would involve a sale price at a discount to market and/or significant warrant coverage. Assuming 100% warrant coverage and a sale price of $0.12 per unit, gross proceeds from the sale of all 115 million available shares would be approximately $6.9 million. If instead Mast seeks to raise capital through strategic transactions, such as licensing arrangements or sales of one or more of Mast s technologies or product candidates, Mast may be required to relinquish valuable rights and dilute the current and future value of Mast s assets. For example, any licensing arrangement likely would require Mast to share with its licensee a significant portion of any revenues generated by Mast s licensed technologies. Additionally, Mast s control over the development and/or marketing of any products or product candidates licensed or sold to third parties likely would be reduced and thus Mast may not realize the full value of any such products or product candidates. Debt financings would likely involve covenants and/or repayment provisions that would restrict Mast s operations. These restrictive covenants may include limitations on additional borrowing and specific restrictions on the use of Mast s assets, including requirements to maintain specified amounts of cash or restrictions on Mast s ability to license or sell Mast s intellectual property assets, as well as prohibitions on Mast s ability to create liens or make investments and may, among other things, preclude Mast from making distributions to its stockholders (either by paying dividends or redeeming stock) and taking other actions beneficial to its stockholders. In addition, investors could impose more one-sided investment terms and conditions on companies that have or are perceived to have limited remaining funds or limited ability to raise additional funds. The lower Mast s cash balance, the more difficult it is likely to be for it to raise additional capital on commercially reasonable terms, or at all.

Notwithstanding efforts on Mast s part to raise additional capital, adequate additional funding may not be available on acceptable terms, or on a timely basis, or at all. Mast may incur significant costs in pursuing, evaluating and negotiating particular capital-raising and/or strategic or partnering transactions, even if Mast s efforts prove unsuccessful.

Mast believes global economic conditions, such as volatility in the U.S. and international equity markets, may adversely impact its ability to raise additional capital. Mast s failure to raise capital as needed would have a

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material adverse effect on its financial condition and ability to pursue its business strategy and Mast potentially may be unable to continue as a going concern and required to liquidate its assets and dissolve the company.

If Mast is unable to consummate the merger with Savara or raise sufficient additional capital as needed, Mast may be forced to delay, reduce or discontinue development of its product candidates, partner them or dispose of its assets at inopportune times or pursue less expensive but higher-risk and/or lower-return development paths.

If Mast is not able to consummate the proposed merger with Savara or raise sufficient additional capital as needed, Mast may be required to delay, reduce or discontinue one or more of its development programs, to seek collaborators or buyers at an earlier stage than otherwise would be desirable or on terms less favorable than might otherwise be available, or to liquidate its assets and dissolve the company. For example, if Mast does not have sufficient capital, it may determine to delay or suspend planned or ongoing clinical or nonclinical studies or other development activities and/or not to conduct other studies or activities intended to enhance its intellectual property position, improve the probability of regulatory approval, or expand the scope of a product candidate s clinical benefit and market potential. Delays in and/or reduction of development activities could impair Mast s ability to realize the full clinical and market potential of a product candidate and have a material adverse effect on Mast s business and financial condition. In addition, suspension or discontinuation of a development program may be viewed negatively, which could adversely affect the price per share of Mast s common stock.

To the extent it discontinues independent development of a product candidate, Mast may not realize any value from its investment in the discontinued program. Even if Mast pursues a strategic option, such as partnering, selling or exclusively licensing the program to a third party, such an option may not be available on acceptable terms or at all, and Mast may not realize any return on its investment in the program.

In addition, if Mast determines its financial resources are insufficient to fund its operations even after implementing additional cost saving measures and reducing the scope of its operations, Mast may be required to dispose of or liquidate its assets at values significantly less than what Mast believes their values to be and at which they are carried on Mast s financial statements.

The process of developing and seeking regulatory approval of, and ultimately commercializing, investigational new drug products requires expenditure of substantial resources, and Mast cannot estimate with reasonable certainty the duration of or costs to complete its development programs.

Mast s capital requirements for the foreseeable future will depend in large part on, and could increase significantly as a result of, Mast s expenditures on its development programs. Future expenditures on Mast s development programs are subject to many uncertainties, and will depend on, and could increase significantly as a result of, many factors, including:

- the number, size, complexity, results and timing of Mast s drug development programs;
- the timing and terms of any collaborative or other strategic arrangement that Mast may establish;
- the number of clinical and nonclinical studies necessary to demonstrate acceptable evidence of the safety and efficacy of a product candidate in a particular indication;

the number of patients who participate, the rate of enrollment, and the ratio of randomized to evaluable patients in each clinical study;

the number and location of sites and the rate of site initiation in each study;

the duration of patient treatment and follow-up;

the potential for additional safety monitoring or other post-marketing studies that may be requested by regulatory agencies;

the time and cost to manufacture clinical trial material and commercial product, including process development and scale-up activities, and to conduct stability studies, which can last several years;

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the degree of difficulty and cost involved in securing alternate manufacturers or suppliers of drug product, components or delivery devices, as necessary to meet FDA requirements and/or commercial demand;

the costs, requirements, timing of, and the ability to, secure regulatory approvals;

the extent to which Mast increases its workforce and the costs involved in recruiting, training and incentivizing new employees;

the costs related to developing, acquiring and/or contracting for sales, marketing and distribution capabilities, supply chain management capabilities, and regulatory compliance capabilities, if Mast obtains regulatory approval for a product candidate and commercialize it without a partner;

competing technologies and market developments; and

the costs involved in establishing, enforcing or defending patent claims and other proprietary rights.

Mast may not be able to raise capital when needed or reduce other expenditures to offset expenditures on Mast s development programs, which could have a material adverse effect on its financial condition and ability to pursue its business strategy.

Mast s ability to raise capital may be limited by applicable laws and regulations.

Historically, Mast has raised capital primarily through the sale of its equity securities. In recent years, Mast has raised substantial funding through equity offerings conducted under shelf registration statements on Form S-3. Using a shelf registration statement on Form S-3 to raise additional capital generally takes less time and is less expensive than other means, such as conducting an offering under a Form S-1 registration statement. However, Mast s ability to raise capital using a shelf registration statement may be limited by, among other things, current SEC rules and regulations. Under current SEC rules and regulations, Mast must meet certain requirements to use a Form S-3 registration statement to raise capital without restriction as to the amount of the market value of securities sold thereunder. One such requirement is that the market value of Mast s outstanding common stock held by non-affiliates, or public float, be at least $75.0 million as of a date within 60 days prior to the date of filing the Form S-3. If Mast does not meet that requirement, then the aggregate market value of securities sold by Mast or on Mast s behalf under the Form S-3 in any 12-month period is limited to an aggregate of one-third of Mast s public float. Moreover, even if Mast meets the public float requirement at the time it files a Form S-3, SEC rules and regulations require that Mast periodically re-evaluate the value of its public float, and if, at a re-evaluation date, Mast s public float is less than $75.0 million, Mast would become subject to the one-third of public float limitation described above. If Mast s ability to utilize a Form S-3 registration statement for a primary offering of its securities is limited to one-third of Mast s public float, Mast may conduct such an offering pursuant to an exemption from registration under the Securities Act or under a Form S-1 registration statement, which Mast has done in the past, including in June 2013, and Mast would expect either of those alternatives to increase the cost of raising additional capital relative to utilizing a Form S-3 registration statement.

In addition, under current SEC rules and regulations, Mast s common stock must be listed and registered on a national securities exchange in order to utilize a Form S-3 registration statement (i) for a primary offering, if Mast s public float is not at least $75.0 million as of a date within 60 days prior to the date of filing the Form S-3, or a re-evaluation date,

whichever is later, and (ii) to register the resale of Mast s securities by persons other than Mast (i.e., a resale offering). While currently Mast s common stock is listed on the NYSE MKT equities market, there can be no assurance that Mast will be able to maintain such listing. The NYSE MKT reviews the appropriateness of continued listing of any issuer that falls below the exchange s continued listing standards. For additional information regarding this risk, see the risk factor below titled If Mast is unable to maintain compliance with NYSE MKT continued listing standards and policies, the NYSE MKT may commence proceedings to delist Mast s common stock, and in some cases, determine to suspend trading in Mast s common stock immediately without an opportunity to propose a plan that could enable Mast to regain compliance, which would likely cause the liquidity and market price of Mast s common stock to decline and you could lose your investment.

Mast s ability to timely raise sufficient additional capital also may be limited by the NYSE MKT s stockholder approval requirements for transactions involving the issuance of Mast s common stock or securities convertible into its common stock. For instance, the NYSE MKT requires that Mast obtain stockholder approval of any transaction involving the sale, issuance or potential issuance by Mast of its common stock (or securities convertible into its common stock) at a price less than the greater of book or market value, which (together with sales by Mast s officers, directors and principal stockholders) equals 20% or more of Mast s then outstanding common stock, unless the transaction is considered a public offering by the NYSE MKT staff. Based on 254,746,933 shares of Mast s common stock outstanding as of March 2, 2017 and the closing price per share of its common stock on such date, which was $0.12, Mast could not raise more than approximately $6.1 million without obtaining stockholder approval, unless the transaction is deemed a public offering or does not involve the sale, issuance or potential issuance by Mast of its common stock (or securities convertible into its common stock) at a price less than the greater of book or market value. In addition, certain prior sales by Mast may be aggregated with any offering it may propose in the future, further limiting the amount Mast could raise in any future offering that is not considered a public offering by the NYSE MKT staff and involves the sale, issuance or potential issuance by Mast of its common stock (or securities convertible into its common stock) at a price less than the greater of book or market value. The NYSE MKT also requires that Mast obtain stockholder approval if the issuance or potential issuance of additional shares will be considered by the NYSE MKT staff to result in a change of control of Mast.

Obtaining stockholder approval is a costly and time-consuming process. If Mast is required to obtain stockholder approval for a potential transaction, Mast would expect to spend substantial additional money and resources. In addition, seeking stockholder approval would delay Mast s receipt of otherwise available capital, which may materially and adversely affect Mast s ability to execute its current business strategy, and there is no guarantee Mast s stockholders ultimately would approve a proposed transaction. A public offering under the NYSE MKT rules typically involves broadly announcing the proposed transaction, which often times has the effect of depressing the issuer s stock price, as occurred following Mast s issuance of a press release on February 9, 2016 announcing a proposed underwritten public offering. Accordingly, the price at which Mast could sell its securities in a public offering may be less, and the dilution existing stockholders experience may in turn be greater, than if Mast were able to raise capital through other means.

Mast has significant goodwill and IPR&D and impairment of goodwill and IPR&D may have a significant adverse impact on Mast s future financial condition and results of operations.

As of December 31, 2016, Mast had goodwill and IPR&D of approximately $5.5 million, representing approximately 31% of Mast s total assets. These intangible assets are subject to an impairment analysis whenever an event or change in circumstances indicates the carrying amount of such an asset may not be recoverable. Mast tests its goodwill and IPR&D for impairment annually, or more frequently if an event or change in circumstances indicates that the asset may be impaired. If an impairment is identified, Mast would be required to record an impairment charge with respect to the impaired asset to Mast consolidated statements of operations and comprehensive loss. A significant impairment charge could have a material negative impact on Mast s financial condition and results of operations.

For example, Mast s IPR&D resulted from its acquisitions of SynthRx and Aires Pharmaceuticals in 2011 and 2014, respectively, through which Mast acquired its vepoloxamer and AIR001 programs, respectively. Based on Mast s assessment of fair value of its vepoloxamer-related IPR&D as of December 31, 2016, Mast reduced the carrying value of its IPR&D by $6.0 million to $0.5 million and recorded an impairment charge of $6.0 million as a separate operating expense in its consolidated statement of operations and comprehensive loss for the year ended December 31, 2016.

Mast will continue to evaluate its intangible assets for potential impairment in accordance with its accounting policies. If additional impairments are identified, Mast would be required to record an impairment charge with respect to the impaired asset to its consolidated statements of operations and comprehensive loss. A

significant impairment charge could have a material negative impact on Mast s financial condition and results of operations.

Events giving rise to impairment are difficult to predict and are an inherent risk in the pharmaceutical industry. Some of the potential risks that could result in impairment of Mast s goodwill and IPR&D include negative clinical study results, adverse regulatory developments, delay or failure to obtain regulatory approval, additional development costs, changes in the manner of Mast s use or development of vepoloxamer or AIR001, competition, earlier than expected loss of exclusivity, pricing pressures, higher operating costs, changes in tax laws, prices that third parties are willing to pay for Mast s IPR&D or similar assets in an arm s-length transaction being less than the carrying value of Mast s IPR&D, and other market and economic environment changes or trends. Events or changes in circumstances may lead to significant impairment charges on Mast s goodwill and/or IPR&D in the future, which could materially adversely affect Mast s financial condition and results of operations.

Loss of personnel, through reductions in force or otherwise, could adversely impact Mast s ability to successfully manage its business.

Mast implemented significant cost-saving measures in 2016, including by restructuring its organization and reducing its workforce by more than 70%. As a result, remaining employees may have to take on substantially more responsibility, resulting in greater workload demands and potential diversion of attention away from key areas of Mast s business. Discontinuation of the vepoloxamer clinical development programs and implementation of other cost-saving measures, including reductions in force, create uncertainty and can negatively affect staff morale, which may lead remaining employees to seek different employment. All of Mast s employment relationships are at-will and Mast may lose employees not affected by reductions in force at any time if they choose to terminate their employment with Mast. Loss of a significant proportion of Mast s employees and/or loss of key employees could not only serve as a distraction to remaining employees but could also cause some loss of institutional knowledge and divert significant management time and attention, which could negatively affect business strategy and execution, and Mast s results of operations and financial condition could suffer as a result.

Replacing key employees may be a difficult, costly and protracted process, and Mast may not have other personnel with the capacity to assume all of the responsibilities of a key employee upon his/her departure. Transition periods can be difficult to manage and may cause disruption to Mast s business. In addition, there may be intense competition from other companies and organizations for qualified personnel. Other companies and organizations with which Mast competes for personnel may have greater financial and other resources and different risk profiles than Mast does, and a history of successful development and commercialization of their product candidates, which may make them more attractive employers. Mast s ability to compete for qualified personnel also may be adversely affected by Mast s highly volatile stock price. The value of equity awards Mast may offer to candidates to induce their employment and to Mast s employees to retain and incentivize them is significantly affected by movements in Mast s stock price that Mast cannot control and may at any time be insufficient to counteract more lucrative offers from other companies. If Mast cannot attract and retain skilled personnel, as needed, Mast may not achieve its development and other goals.

In the meantime, the success of Mast s business likely will depend in part on Mast s ability to develop and maintain relationships with respected service providers and industry-leading consultants and advisers. If Mast cannot develop and maintain such relationships, as needed, the rate and success at which Mast can develop and commercialize product candidates may be limited. In addition, Mast s outsourcing strategy, which has included engaging consultants that spend considerable time in Mast s office to manage key functional areas, may subject Mast to scrutiny under labor laws and regulations, which may divert management time and attention and have an adverse effect on Mast s business and financial condition.

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Mast expends substantial resources to comply with laws and regulations relating to public companies, and any failure to maintain compliance could subject Mast to regulatory scrutiny and cause investors to lose confidence in Mast, which could harm Mast s business and have a material adverse effect on its stock price.

Laws and regulations affecting public companies, including provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and the Sarbanes-Oxley Act of 2002, or SOX, and the related rules and regulations adopted by the SEC and by the NYSE MKT have resulted in, and will continue to result in, significant costs to Mast as it evaluates the implications of these rules and respond to their requirements. For example, compliance with Section 404 of SOX, including performing the system and process documentation and evaluation necessary to issue Mast s annual report on the effectiveness of Mast s internal control over financial reporting and, if applicable, obtain the required attestation report from Mast s independent registered public accounting firm, requires Mast to incur substantial expense and expend significant management time. Further, Mast has in the past discovered, and may in the future discover, areas of internal controls that need improvement. If Mast identifies deficiencies in its internal controls that are deemed to be material weaknesses, Mast could become subject to scrutiny by regulatory authorities and lose investor confidence in the accuracy and completeness of its financial reports, which could have a material adverse effect on Mast s stock price. Internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives because of its inherent limitations, including the possibility of human error and circumvention by collusion or overriding of controls. Accordingly, even an effective internal control system may not prevent or detect material misstatements on a timely basis, or at all. Also, previously effective controls may become inadequate over time as a result of changes in Mast s business or operating structure, and Mast may fail to take measures to evaluate the adequacy of and update these controls, as necessary, which could lead to a material misstatement. For example, loss of staff and other resources in Mast s accounting department as a result of cost-saving measures or otherwise, could negatively impact its ability to maintain adequate internal control over financial reporting and/or disclosure controls and procedures and the accuracy and timeliness of Mast s financial reporting. Consequently, investor confidence in Mast s financial reports may be adversely affected, which could negatively impact its stock price.

In addition, new laws and regulations could make it more difficult or more expensive for Mast to obtain certain types of insurance, including director and officer liability insurance, and Mast may be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the coverage that is the same or similar to its current coverage. The impact of these events could also make it more difficult for Mast to attract and retain qualified persons to serve on the board of directors or board committees, and as executive officers. Mast cannot predict or estimate with any reasonable accuracy the total amount or timing of the costs Mast may incur to comply with these laws and regulations.

Mast s business and operations would suffer in the event of computer system failures, cyber-attacks on its systems or deficiency in its cyber security.

Despite the implementation of security measures, Mast s internal computer systems, and those of third parties on which it relies, are vulnerable to damage from computer viruses, unauthorized access, malware, natural disasters, fire, terrorism, war and telecommunication, electrical failures, cyber-attacks or cyber-intrusions over the Internet, attachments to emails, persons inside Mast s organization, or persons with access to systems inside its organization. The risk of a security breach or disruption, particularly through cyber-attacks or cyber intrusion, including by computer hackers, foreign governments, and cyber terrorists, has generally increased as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased. In addition, Mast s systems or those of third parties on which Mast relies safeguard important confidential personal data regarding Mast s employees and patients enrolled in its clinical trials. If a disruption event were to occur and cause interruptions in Mast s operations, it could result in a disruption of its drug development programs. For example, the loss of clinical trial data

from completed, ongoing or planned clinical trials could result in delays in Mast s regulatory approval efforts and significantly increase Mast s costs to recover or reproduce the data. To the extent that any disruption or security breach results in a loss of or damage to Mast s data or applications, or

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inappropriate disclosure of confidential or proprietary information, Mast could incur liability and development of its product candidates could be delayed.

Mast s employees, independent contractors and consultants, principal investigators, CROs, CMOs and other vendors, and any future commercial partners may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements, which could cause significant liability for Mast and harm Mast s reputation.

Mast is exposed to the risk that its employees, independent contractors and consultants, principal investigators, CROs, CMOs and other vendors, and any future commercial partners may engage in fraudulent conduct or other misconduct, including intentional failures to comply with FDA regulations or similar regulations of comparable foreign regulatory authorities, to provide accurate information to the FDA or comparable foreign regulatory authorities, to comply with manufacturing standards required by cGMP or that Mast establish, to comply with federal and state healthcare fraud and abuse laws and regulations and similar laws and regulations established and enforced by comparable foreign regulatory authorities, and to report financial information or data accurately or disclose unauthorized activities to Mast. The misconduct of Mast s employees and others Mast engages to provide services to it could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to Mast s reputation. Mast maintains a code of business conduct and ethics for its directors, officers and employees, but it is not always possible to identify and deter such misconduct, and the precautions Mast takes to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting Mast from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against Mast, and Mast is not successful in defending ourselves or asserting Mast s rights, those actions could have a significant impact on Mast s business and results of operations, including the imposition of significant fines or other sanctions.

Mast s operations might be interrupted by the occurrence of a natural disaster or other catastrophic event.

Mast s corporate headquarters are located in a single commercial facility in San Diego, California. Important documents and records, including copies of Mast s regulatory documents and other records for Mast s product candidates, are located at Mast s facilities and Mast depends on its facilities for the continued operation of its business. Natural disasters and other catastrophic events, such as wildfires and other fires, earthquakes and extended power interruptions, which have impacted San Diego businesses in the past, and terrorist attacks or severe weather conditions, could significantly disrupt Mast s operations and result in additional, unplanned expense. As a small company with limited resources, Mast has not prepared or implemented a formal business continuity or disaster recovery plan and any natural disaster or catastrophic event could disrupt Mast s business operations and result in setbacks to Mast s development programs. Even though Mast believes it carries commercially reasonable insurance, Mast might suffer losses that are not covered by or exceed the coverage available under these insurance policies.

Risks Related to Mast s Drug Development and Commercialization

Mast depends on the successful completion of clinical studies of its product candidates and positive results in prior clinical studies do not ensure that ongoing or future clinical studies will be successful.

Human pharmaceutical products generally are subject to rigorous nonclinical testing and clinical studies and other approval procedures mandated by the FDA and foreign regulatory authorities. Before obtaining regulatory approval for the commercial sale of a product candidate, Mast must demonstrate through additional clinical studies that the drug product is safe and effective for use in the target indication.

Clinical studies are expensive, difficult to design and implement, can take many years to complete, and outcomes are inherently uncertain. A drug product may fail to demonstrate positive results at any stage of testing

despite having progressed satisfactorily through nonclinical testing and initial clinical studies. In addition, interim results of a clinical study do not necessarily predict final results. Further, clinical study data frequently are susceptible to varying interpretations. Medical professionals and/or regulatory authorities may analyze or weigh study data differently than Mast does, resulting in delay or failure to obtain marketing approval for a product candidate.

If Mast licenses rights to develop its product candidates to independent third parties or otherwise permits such third parties to evaluate its product candidates in clinical studies, Mast may have limited control over those clinical studies. For example, AIR001 is being evaluated in investigator-sponsored clinical studies over which Mast has limited or no control over the study design or implementation and Mast cannot provide assurance that any of those studies will be completed on anticipated timelines or at all. Any safety or efficacy concern identified in a third-party sponsored study could adversely affect Mast s or another licensee s development of Mast s product candidate and prospects for its regulatory approval, even if the data from that study are susceptible to varying interpretations and analyses.

There is significant risk that ongoing and future clinical studies of Mast s product candidates are unsuccessful. Negative or inconclusive results could cause the FDA and other regulatory authorities to require that Mast repeat or conduct additional clinical studies, which could significantly increase the time and expense associated with development of that product candidate or cause Mast to elect to discontinue one or more clinical programs. For example, in September 2016, Mast announced that its Phase 3 clinical study of vepoloxamer in sickle cell disease did not achieve its primary or secondary efficacy endpoints. Shortly thereafter and as a result, Mast decided to discontinue its clinical development programs for vepoloxamer in sickle cell disease and heart failure. Failure to complete a clinical study of a product candidate or an unsuccessful completion of a clinical study of a product candidate could have a material adverse effect on Mast s business and/or stock price.

All ongoing and currently planned clinical studies of Mast s lead product candidate, AIR001, are investigator-sponsored studies over which Mast have limited or no control.

AIR001 is Mast s lead product candidate and is being evaluated in multiple, investigator-sponsored Phase 2 clinical studies for the treatment of patients with HFpEF. As a result, Mast believes its capital requirements for advancing development of AIR001 in HFpEF are significantly less than if Mast were to conduct this Phase 2 clinical testing itself. However, because Mast is not the sponsor of these studies, Mast has limited or no control over the study design or execution, including whether the study will enroll a sufficient number of subjects or be completed on schedule, if at all. As a result, successful completion of these studies is largely outside of Mast s control.

Delays in commencement and completion of clinical studies are common and have many causes. Delays in clinical studies of Mast s product candidates could increase overall development costs and jeopardize Mast s ability to obtain regulatory approval and successfully commercialize any approved products.

Clinical testing typically is expensive, can take many years to complete, and its outcome is inherently uncertain. Clinical studies may not commence on time or be completed on schedule, if at all. The commencement and completion of clinical studies can be delayed for a variety of reasons, including:

- inability to raise sufficient funding, if necessary, to initiate or continue a clinical study;
- delays in obtaining regulatory approval to commence a clinical study;

delays in identifying and reaching agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical study sites and investigators, which agreements can be subject to extensive negotiation and may vary significantly among study sites;

delays in obtaining institutional review board, or IRB, approval to conduct a clinical study at a prospective site;

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delays in reaching agreements on acceptable terms with prospective contract manufacturing organizations, or CMOs, or other vendors for the production and supply of clinical trial material and, if necessary, drug administration devices, which agreements can be subject to extensive negotiation;

delays in the production and/or delivery of sufficient quantities of clinical trial material or drug administration devices from Mast s CMOs and other vendors to initiate or continue a clinical study;

delays on the part of Mast s CROs, CMOs, and other third-party contractors in developing procedures and protocols or otherwise conducting activities in accordance with applicable policies and procedures and in accordance with agreed upon timelines;

delays in identifying and hiring or engaging, as applicable, additional employees or consultants to assist in managing clinical study-related activities;

delays in recruiting and enrolling individuals to participate in a clinical study;

delays caused by subjects dropping out of a clinical study due to side effects, difficulties in adhering to the study protocol, or otherwise;

delays in having subjects complete participation in a clinical study, including returning for post-treatment follow-up;

delays resulting from study sites dropping out of a trial or providing inadequate staff support for the study;

Mast s suspension of enrollment at a study site or the imposition of a clinical hold by the FDA or other regulatory authority following an inspection of clinical study operations at study sites or finding of a drug-related serious adverse event; and

delays in quality control/quality assurance procedures necessary for study database lock and analysis of unblinded data.

Patient enrollment, a critical component to successful completion of a clinical study, is affected by many factors, including the size and nature of the study subject population, the proximity of patients to clinical sites, the eligibility criteria for the study, the design of the clinical study, competing clinical studies and clinicians and patients perceptions as to the potential advantages of the drug being studied in relation to available alternatives, including therapies being investigated by other companies. Further, completion of a clinical study and/or its results may be adversely affected by failure to retain subjects who enroll in a study but withdraw due to adverse side effects, perceived lack of efficacy, improvement in condition before treatment has been completed, or for personal issues or by subjects who fail to return for or complete post-treatment follow-up.

Clinical studies may not begin on time or be completed in the time frames Mast anticipates and may be more costly than Mast anticipates for a variety of reasons, including one or more of those described above. The length of time necessary to complete clinical studies varies significantly and is difficult to predict accurately. Mast may make statements regarding anticipated timing for completion of enrollment in and/or availability of results from its clinical studies, but such predictions are subject to a number of significant assumptions and actual timing may differ materially for a variety of reasons, including patient enrollment rates, length of time needed to prepare raw study data for analysis and then to review and analyze it, and other factors described above. In addition, in the case of AIR001, Mast is supporting but is not sponsoring the ongoing Phase 2 clinical studies and, as a result, the continuation and completion of and receipt of data from those studies may be largely outside of Mast s control. If Mast experiences delays in the completion of a clinical study, if a clinical study is terminated, or if failure to conduct a study in accordance with regulatory requirements or the study s protocol leads to deficient safety and/or efficacy data, the regulatory approval and/or commercial prospects for Mast s product candidate may be harmed and Mast s ability to generate product revenue will be delayed. In addition, any delays in completing Mast s clinical studies likely will increase its development costs. Further, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical studies may ultimately lead

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to the denial of regulatory approval of a product candidate. Even if Mast is able to ultimately commercialize Mast s product candidates, other therapies for the same indications may be introduced to the market in the interim and establish a competitive advantage or diminish the need for Mast s products.

Clinical studies are very expensive, difficult to design and implement, often take many years to complete, and the outcome is inherently uncertain.

Clinical development of pharmaceutical products for humans generally is very expensive, takes many years to complete and failure can occur at any stage of clinical testing. Mast estimates that clinical development of its product candidates will take several additional years to complete, but because of the variety of factors that can affect the design, timing and outcome of clinical studies, Mast is unable to estimate the actual funds required to complete research and development and commercialize Mast s product candidates. Mast will need significant additional capital to continue to advance AIR001 for the treatment of HFpEF.

Failure at every stage of clinical testing is not uncommon and Mast may encounter problems that would require additional, unplanned studies or cause Mast to abandon a clinical development program. For example, Mast determined to discontinue clinical development of vepoloxamer in sickle cell disease based upon the top-line results of the Phase 3 study of vepoloxamer in sickle cell disease. If results of ongoing investigator-sponsored clinical studies of AIR001 in HFpEF are negative or inconclusive, Mast may determine not to pursue additional clinical studies in HFpEF or any other indication.

In addition, a clinical study may be suspended or terminated by Mast, an IRB, a data safety monitoring board, the FDA or other regulatory authorities due to a number of factors, including:

- lack of adequate funding to continue the study;
- failure to conduct the study in accordance with regulatory requirements or the study s protocol;
- inspection of clinical study operations or sites by the FDA or other regulatory authorities resulting in the imposition of a clinical hold;
- unforeseen safety issues, including adverse side effects; or
- changes in governmental regulations or administrative actions.

Changes in governmental regulations and guidance relating to clinical studies may occur and Mast may need to amend study protocols to reflect these changes, or Mast may amend study protocols for other reasons. Amendments may require Mast to resubmit protocols to IRBs for reexamination or renegotiate terms with CROs, study sites and investigators, all of which may adversely impact the costs or timing of or Mast s ability to successfully complete a trial.

There is significant uncertainty regarding the regulatory approval process for any investigational new drug, substantial further testing and validation of Mast s product candidates and related manufacturing processes are

required, and regulatory approval may be conditioned, delayed or denied, which could delay or prevent Mast from successfully marketing Mast s product candidates and substantially harm its business.

Human pharmaceutical products generally are subject to rigorous nonclinical testing and clinical studies and other approval procedures mandated by the FDA and foreign regulatory authorities. Various federal and foreign statutes and regulations also govern or influence the manufacturing, safety, labeling, storage, record keeping and marketing of pharmaceutical products. The process of obtaining these approvals and the subsequent compliance with appropriate U.S. and foreign statutes and regulations is time-consuming and requires the expenditure of substantial resources.

Mast expects its MAST platform to accelerate development of vepoloxamer as compared to other new molecular entities for therapeutic use in humans. For example, Mast considers vepoloxamer Phase 2 ready for

clinical development in ischemic stroke. However, this expectation is predicated on the belief that regulatory authorities, such as the FDA, will consider clinical and nonclinical studies of vepoloxamer and poloxamer 188 conducted by prior sponsors and/or conducted in other diseases or conditions supportive of clinical development of vepoloxamer in stroke, which may not be the case for a variety of reasons. If regulatory agencies take the position that prior-sponsor studies of vepoloxamer and poloxamer 188 do not support the safety and efficacy of Mast s vepoloxamer-based product candidates, they may require additional testing of Mast s product candidates prior to allowing Mast to proceed with proposed clinical studies or ultimately prior to granting marketing approval, which could require Mast to expend substantial additional resources and significantly extend the timeline for clinical development of vepoloxamer in stroke.

Significant uncertainty exists with respect to the regulatory approval process for any investigational new drug, including Mast s lead product candidate, AIR001. Regardless of guidance the FDA may give a drug s sponsor during its development, the FDA retains complete discretion in deciding whether to accept a NDA for filing or, if accepted, approve an NDA. There are many components to an NDA submission in addition to clinical study data. For example, the FDA will review Mast s internal systems and processes, as well as those of Mast s CROs, CMOs and other vendors, related to development of its product candidate, including those pertaining to Mast s clinical studies and manufacturing processes. Before accepting an NDA for review or before approving the NDA, the FDA may request that Mast provide additional information that may require significant resources and time to generate and there is no guarantee that Mast s product candidate will be approved for any indication for which Mast may apply. The FDA may choose not to approve an NDA for any of a variety of reasons, including a decision related to the safety or efficacy data, manufacturing controls or systems, or for any other issues that the agency may identify related to the development of Mast s product candidate. Even if one or more Phase 3 clinical studies are successful in providing statistically significant evidence of the efficacy and safety of the investigational drug, the FDA may not consider efficacy and safety data from the submitted studies adequate scientific support for a conclusion of effectiveness and/or safety and may require an additional Phase 3 or other studies prior to granting marketing approval. If this were to occur, the overall development cost for the product candidate would be substantially greater and its competitors may bring products to market before Mast, which could impair its ability to generate revenues from the product and have a material adverse effect Mast s business, financial condition and results of operations.

Further, development of Mast s product candidates and/or regulatory approval may be delayed for reasons beyond Mast s control. For example, U.S. federal government shut-down or budget sequestration, such as occurred during 2013, may result in significant reductions to the FDA s budget and operations, which may lead to slower response times and longer review periods, potentially affecting Mast s ability to progress development of or obtain regulatory approval for Mast s product candidates.

Even if the FDA grants approval, the conditions or scope of the approval may limit successful commercialization of the product and impair Mast s ability to generate substantial sales revenue. For example, the FDA may not approve the labeling claims for Mast s products that Mast requests and believes are necessary or desirable for successful commercialization, or may grant marketing approval contingent on the performance of costly post-approval clinical trials or subject to warnings or contraindications. Additionally, even after granting approval, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion and recordkeeping for its products will be subject to extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, registration, and continued compliance with current good manufacturing processes, or cGMP, good clinical practices, international conference on harmonization regulations and good laboratory practices, which are regulations and guidelines that are enforced by the FDA for all of its clinical development and for any clinical studies that Mast conducts post-approval. The FDA may decide to withdraw approval, add warnings or narrow the approved indications in the product label, or establish risk management programs that could restrict distribution of Mast s products. These actions could result from, among other

things, safety concerns, including unexpected side effects or drug-drug interaction problems, or concerns over misuse of a product. If any of these actions were to occur following approval, Mast may have to discontinue commercialization of the product, limit

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its sales and marketing efforts, and/or conduct post-approval studies, which in turn could result in significant expense and delay or limit Mast s ability to generate sales revenues.

Mast does not have, and does not have plans to establish, any manufacturing facilities and are dependent on third parties for the manufacture and supply of its clinical trial materials, and the loss of any of these vendors or their failure to provide Mast with an adequate supply of clinical trial material in a timely manner and on commercially acceptable terms, or at all, could harm Mast s business.

Mast does not have, and does not have plans to establish, its own manufacturing facilities. For clinical trial material, Mast entered into supply agreements with third parties for both API and finished drug product, but Mast s agreements may not cover all of its clinical trial material needs and Mast may need to negotiate new or amended agreements with these CMOs and other vendors or rely on individual proposals or statements of work, which inherently involves uncertainty as to ongoing supply and may result in delays in the completion of ongoing clinical studies or initiation of new studies. In addition, as development of Mast s product candidates progress, Mast will need to negotiate agreements for commercial supply; however, Mast may not be able to reach agreement on acceptable terms. If Mast fails to maintain relationships with its current CMOs and other vendors, Mast may not be able to complete development of its product candidates, or market them, if approved, on a timely basis, or at all, which would have a material and adverse effect on its business.

In addition, in connection with terminating its clinical development of vepoloxamer, Mast also terminated its agreements with its vepoloxamer-related CMOs and other vendors. Consequently, if Mast were to restart clinical development of vepoloxamer it would have to establish new CMO relationships and may not be able to do so on a timely basis, or at all.

Third-party manufacturers and suppliers may not perform as agreed or may terminate their agreements with Mast. For example, because these third parties provide manufacturing services to a number of other pharmaceutical companies, they may experience capacity constraints or choose to prioritize one or more of their other customers over Mast. Any significant problem that Mast s manufacturers or suppliers experience could delay or interrupt its supply of clinical trial material or commercial product until the manufacturer or supplier cures the problem or until Mast locate, negotiate for and validate an alternative source of supply, if one is available.

In addition to Mast s reliance on third parties to manufacture clinical trial material, Mast relies on them to conduct or assist in conducting key manufacturing development activities, including qualification of equipment, developing and validating methods, defining critical process parameters, releasing component materials and conducting stability testing, among other things. If these third parties are unable to perform successfully in a timely manner, whether for technical, financial or other reasons, Mast may be unable to secure clinical trial material, which likely would delay the initiation, conduct or completion of its clinical studies, which, in turn, likely would have a material and adverse effect on Mast s business.

All manufacturers of Mast s clinical trial material and, as applicable, commercial product, including API manufacturers, must comply with cGMP requirements enforced by the FDA through its facilities inspection program and applicable requirements of foreign regulatory authorities. These requirements include quality control, quality assurance and the maintenance of records and documentation. Manufacturers of Mast s clinical trial material may be unable to comply with these cGMP requirements and with other FDA, state and foreign regulatory requirements. While Mast or its representatives generally monitor and audit Mast s manufacturers systems, Mast has little control over their ongoing compliance with these regulations. Failure to comply with these requirements may result in fines and civil penalties, suspension of production, suspension or delay in product approval, product seizure or recall, or withdrawal of product approval.

Currently, Mast does not have alternative sources to backup Mast s primary sources of clinical trial material. Identification of and discussions with other vendors may be protracted and/or unsuccessful. Therefore,

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if Mast s primary sources become unable or unwilling to perform, Mast could experience protracted delays or interruptions in the supply of clinical trial material and, ultimately, product for commercial sale, which could materially and adversely affect Mast s development programs, commercial activities, operating results and financial condition. In addition, the FDA may require that Mast has an alternate manufacturer of a drug product before approving it for marketing and sale in the U.S. and securing such alternate manufacturer before approval of an NDA could result in considerable additional time and cost prior to NDA approval.

Any new manufacturer or supplier of finished drug product or its component materials, including API, would be required to qualify under applicable regulatory requirements and would need to have sufficient rights under applicable intellectual property laws to the method of manufacturing such product or ingredients. The FDA may require Mast to conduct additional clinical studies, collect stability data and provide additional information concerning any new supplier, or change in a validated manufacturing process, including scaling-up production, before Mast could distribute products from that manufacturer or supplier or revised process. For example, if Mast were to engage a third party other than Mast s current CMOs to supply drug product for future clinical trial material or commercial product, the FDA may require Mast to conduct additional clinical and nonclinical studies to ensure comparability of the drug substance manufactured by Mast s current CMOs to drug substance manufactured by the new supplier. In addition to the potential for such requirements to result in significant interruption to development and commercialization of its product candidates, Mast likely would incur substantial additional costs to comply with the additional requirements.

The manufacture of pharmaceutical products requires significant expertise and capital investment, including the development of advanced manufacturing techniques and process controls. Manufacturers of pharmaceutical products often encounter difficulties in production, particularly in scaling-up initial production. These problems include difficulties with production costs and yields, quality control, including stability of the product candidate and quality assurance testing, and shortages of qualified personnel. None of Mast s product candidates has been manufactured at the scale Mast believe will be necessary to maximize its commercial value and, accordingly, Mast may encounter difficulties in attempting to scale-up production and may not succeed in that effort on a timely basis or at all, including as a result of delaying activities necessary to establish commercial-scale production due to capital constraints. In addition, the FDA or other regulatory authorities may impose additional requirements as Mast scale-up initial production capabilities, which may delay Mast s scale-up activities or add expense.

If Mast s manufacturers encounter any of these difficulties or otherwise fail to comply with their contractual obligations or Mast delays in entering into commercial supply agreements due to capital constraints, Mast may have insufficient quantities of material to support ongoing and/or planned clinical studies or to meet commercial demand, if approved. In addition, any delay or interruption in the supply of materials necessary or useful to manufacture Mast s product candidates could delay the completion of its clinical studies, increase the costs associated with Mast s development programs and, depending upon the period of delay, require Mast to commence new clinical studies at significant additional expense or terminate the studies completely. Delays or interruptions in the supply of commercial product could result in increased cost of goods sold and lost sales. Mast cannot provide assurance that manufacturing or quality control problems will not arise in connection with the manufacture of Mast s clinical trial material or commercial product, if approved, or that third-party manufacturers will be able to maintain the necessary governmental licenses and approvals to continue manufacturing such clinical trial material or commercial product, as applicable. In addition, vepoloxamer currently is manufactured outside the U.S. and, as a result, Mast may experience interruptions in supply due to shipping or customs difficulties or regional instability. Any of the above factors could cause Mast to delay or suspend anticipated or ongoing trials, regulatory submissions or commercialization of Mast s product candidates, entail higher costs or result in its being unable to effectively commercialize its products. Mast s dependence upon third parties for the manufacture of its clinical trial material may adversely affect its future costs and its ability to develop and commercialize product candidates on a timely and competitive basis.

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Mast relies significantly on third parties to conduct its nonclinical testing and clinical studies and other aspects of Mast s development programs and if those third parties do not satisfactorily perform their contractual obligations or meet anticipated deadlines, the development of its product candidates could be adversely affected.

Mast does not employ personnel or possess the facilities necessary to conduct many of the activities associated with its programs. Mast engages consultants, advisors, CROs, CMOs and others to assist in the design and conduct of nonclinical and clinical studies of Mast s product candidates, with interpretation of the results of those studies and with regulatory activities, and Mast expects to continue to outsource a significant amount of such activities. As a result, many important aspects of Mast s development programs are and will continue to be outside its direct control, and Mast s third-party service providers may not perform as required or expected. Further, such third parties may not be as committed to the success of Mast s programs as employees and, therefore, may not devote the same time, thoughtfulness or creativity to completing projects or problem-solving as would an employee. To the extent Mast is unable to successfully manage the performance of third-party service providers, its business may be adversely affected.

The CROs that Mast engages to execute its clinical studies play a significant role in the conduct of the studies, including the collection and analysis of study data, and Mast likely will depend on CROs and clinical investigators to conduct future clinical studies and to assist in analyzing data from completed studies and developing regulatory strategies for its product candidates. Individuals working at the CROs with which Mast contract, as well as investigators at the sites at which its studies are conducted, are not Mast s employees, and Mast has limited control over the amount or timing of resources that they devote to its programs. As discussed above, with respect to Mast s AIR001 program, because it is not the sponsor of the ongoing clinical studies of AIR001, Mast s control over these studies is further limited. If Mast s CROs, study investigators, and/or third-party sponsors fail to devote sufficient time and resources to studies of its product candidates, if they do not comply with all regulatory and contractual requirements, or if their performance is substandard, it may delay commencement and/or completion of these studies, submission of applications for regulatory approval, regulatory approval, and commercialization of Mast s product candidates. Failure of CROs to meet their obligations to Mast could adversely affect development of its product candidates. For example, in 2006, Mast engaged a CRO to assist with the primary conduct of Mast s bioequivalence study of Exelbine, including monitoring participating clinical sites to ensure compliance with regulatory requirements. FDA guidance recommends that clinical sites randomly select and retain reserve samples of study drugs used in bioequivalence studies. However, the clinical sites that participated in Mast s bioequivalence study of Exelbine failed to do so. In August 2011, Mast received a complete response letter from the FDA stating that the authenticity of the study drugs used in that bioequivalence study could not be verified and, consequently, the study would need to be repeated to address that deficiency.

In addition, CROs Mast engages may have relationships with other commercial entities, some of which may compete with Mast. If they assist Mast s competitors at Mast s expense, it could harm Mast s competitive position. Moreover, if a CRO fails to perform during a clinical study, Mast may not be able to enter into arrangements with alternative CROs on acceptable terms or in a timely manner, or at all. Switching CROs may increase costs and divert management time and attention. In addition, there likely would be a transition period when a new CRO commences work. These challenges could result in delays in the commencement or completion of its clinical studies, which could materially impact Mast s ability to meet its desired development timelines and have a material adverse impact on Mast s business and financial condition.

Mast s product candidates may cause undesirable side effects or have other properties that could delay or prevent their clinical development, regulatory approval or commercialization.

Undesirable side effects caused by Mast s product candidates could interrupt, delay or halt clinical studies and could result in the denial of regulatory approval by the FDA or other regulatory authorities for any or all indications, and in turn prevent Mast from commercializing its product candidates.

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If any of Mast s product candidates receive marketing approval and Mast or others later identify undesirable side effects caused by the product or, if applicable, the reference product:

- regulatory authorities may require the addition of labeling statements, such as a black box warning or a contraindication;
- regulatory authorities may withdraw their approval of the product;
- Mast may be required to change the way the product is administered, conduct additional clinical studies or change the labeling of the product; and
- Mast s reputation may suffer.

Any of these events could prevent Mast from achieving or maintaining market acceptance of the affected product or could substantially increase the costs and expenses of commercializing the product, which in turn could delay or prevent Mast from generating significant revenue from its sale.

Mast may not achieve its projected development goals in the time frames Mast announces.

Mast set goals for and make public statements regarding its estimates of the timing for accomplishing certain objectives material to successful development of its product candidates. The actual timing of these events can vary, sometimes dramatically, due to many factors, including delays or failures in Mast s nonclinical testing, clinical studies and manufacturing and regulatory activities and the uncertainties inherent in the regulatory approval process. From time to time Mast provides estimates for the completion of enrollment of or announcement of data from clinical studies of its product candidates. However, predicting the rate of enrollment or the time from completion of enrollment to announcement of data for any clinical study requires Mast to make a number of significant assumptions that may prove to be incorrect. In addition, for studies sponsored by independent third parties, Mast has even less control over whether the study meets anticipated timelines. If, as a clinical study progresses, Mast gains reliable information that materially impacts its assumptions, Mast will adjust its estimates. Even so, as discussed in other risk factors above, Mast s estimated enrollment rates and the actual rates may differ materially and the time required to complete enrollment of any clinical study may be considerably longer than Mast estimates. In addition, even if Mast completes enrollment as expected, it may take longer than anticipated to prepare the data for review and then to review, analyze and announce the data, as was the case with Mast s Phase 3 study of vepoloxamer in sickle cell disease. Such delays may adversely affect Mast s financial condition and results of operations.

Even if Mast completes a clinical study with successful results, Mast may not achieve its projected development goals in the time frames it initially anticipates or announces. If a development plan for a product candidate becomes more extensive and costly than anticipated, Mast may determine that the associated time and cost are not financially justifiable and, as a result, discontinue development in a particular indication or of the product candidate as a whole. Any such action may be viewed negatively, which could adversely affect Mast s stock price.

In addition, changes may occur in regulatory requirements or policy during the period of product development and/or regulatory review of an NDA that relate to the data required to be included in NDAs. A change in regulatory policy that is not formalized or publicly announced may result in Mast s submission of an NDA that the FDA or a foreign

regulatory agency deems insufficient to support product approval, which could substantially increase the time and cost associated with seeking regulatory approval of a product candidate.

Throughout development, Mast must provide adequate assurance to the FDA and other regulatory authorities that Mast can consistently produce Mast s product candidates in conformance with cGMP and other regulatory standards. As discussed above, Mast relies on CMOs for the manufacture of clinical, and future commercial, quantities of Mast s product candidates. If future FDA or other regulatory authority inspections identify cGMP compliance issues at these third-party facilities, production of Mast s clinical trial material or, in

the future, commercial product, could be disrupted, causing potentially substantial delay in development or commercialization of Mast s product candidates.

Even if Mast receives regulatory approval for a product candidate, Mast may face development and regulatory difficulties that could materially and adversely affect its business, financial condition and results of operations and cause Mast s stock price to decline.

Even if initial regulatory approval is obtained, or as a condition to the initial approval, the FDA or a foreign regulatory agency may impose significant restrictions on a product s indicated uses or marketing or impose ongoing requirements for potentially costly post-approval studies or marketing surveillance programs, any of which would limit the commercial potential of the product. Mast s product candidates also will be subject to ongoing FDA requirements related to the manufacturing processes, labeling, packaging, storage, distribution, advertising, promotion, record-keeping and submission of safety and other post-market information regarding the product. For instance, the FDA may require changes to approved drug labels, require post-approval clinical studies and impose distribution and use restrictions on certain drug products. In addition, approved products, manufacturers and manufacturers facilities are subject to continuing regulatory review and periodic inspections. If previously unknown problems with a product are discovered, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, the FDA may impose restrictions on that product or Mast, including requiring withdrawal of the product from the market. If Mast or a CMO of ours fail to comply with applicable regulatory requirements, a regulatory agency may:

- issue warning letters or untitled letters;
- impose civil or criminal penalties;
- suspend or withdraw regulatory approval;
- suspend or terminate any ongoing clinical studies;
- refuse to approve pending applications or supplements to approved applications;
- exclude Mast s product from reimbursement under government healthcare programs, including Medicaid or Medicare;
- impose restrictions or affirmative obligations on Mast s or Mast s CMO s operations, including costly new manufacturing requirements;
- close the facilities of a CMO; or

seize or detain products or require a product recall.

If any of Mast s product candidates for which Mast receives regulatory approval fails to achieve significant market acceptance among the medical community, patients or third-party payers, the revenue Mast generates from its sales will be limited and Mast s business may not be profitable.

Mast s success will depend in substantial part on the extent to which Mast s product candidates, if approved, are accepted by the medical community and patients and reimbursed by third-party payers, including government payers. The degree of market acceptance with respect to each of its approved products, if any, will depend upon a number of factors, including:

the safety and efficacy of Mast s product demonstrated in clinical studies;

acceptance in the medical and patient communities of Mast s product as a safe and effective treatment;

the perceived advantages of Mast s product over alternative treatments, including with respect to the incidence and severity of any adverse side effects and the cost of treatment;

the indications for which Mast s product is approved;

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claims or other information (including limitations or warnings) in Mast s product s approved labeling;

reimbursement and coverage policies of government and other third-party payers;

pricing and cost-effectiveness of Mast s product relative to alternative treatments;

availability of alternative treatments;

the prevalence of off-label substitution of chemically equivalent products or alternative treatments; and

the resources Mast devotes to marketing its product and restrictions on promotional claims Mast can make with respect to the product.

Mast cannot predict with reasonable accuracy whether physicians, patients, healthcare insurers or health maintenance organizations, or the medical community in general, will accept or utilize any of Mast s products. If Mast s product candidates are approved but do not achieve an adequate level of acceptance by these parties, Mast may not generate sufficient revenue to become or remain profitable. In addition, Mast s efforts to educate the medical community and third-party payers regarding benefits of its products may require significant resources and may never be successful.

If Mast determines that a product candidate may not achieve adequate market acceptance or that the potential market size does not justify additional expenditure on the program, Mast may reduce its expenditures on the development and/or the process of seeking regulatory approval of the product candidate while Mast evaluates whether and on what timeline to move the program forward.

Even if Mast receives regulatory approval to market one or more of its product candidates in the U.S., Mast may never receive approval or commercialize its products outside of the U.S., which would limit Mast s ability to realize the full commercial potential of its product candidates.

In order to market any products outside of the U.S., Mast must establish and comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy. Approval procedures vary among countries and can involve additional product testing and validation and additional administrative review periods. The time required to obtain approval in other countries might differ from that required to obtain FDA approval. The regulatory approval process in other countries may include all of the risks detailed above regarding FDA approval in the U.S., as well as other risks. Regulatory approval in one country does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country may have a negative effect on the regulatory process in others. Failure to obtain regulatory approval in other countries or any delay or setback in obtaining such approval could have the same adverse effects detailed above regarding FDA approval in the U.S. As described above, such effects include the risks that Mast s product candidates may not be approved for all indications requested, which could limit the uses of Mast s product candidates and have an adverse effect on product sales, and that such approval may be subject to limitations on the indicated uses for which the product may be marketed or require costly, post-marketing follow-up studies.

Risks Related to Mast s Intellectual Property

Mast s success will depend in part on obtaining and maintaining effective patent and other intellectual property protection for Mast s product candidates and proprietary technology.

Mast s success will depend in part on its ability to:

obtain and maintain patent and other exclusivity with respect to Mast s products and their use;

prevent third parties from infringing upon Mast s proprietary rights;

maintain proprietary know-how and trade secrets;

operate without infringing upon the patents and proprietary rights of others; and

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obtain appropriate licenses to patents or proprietary rights held by third parties if infringement would otherwise occur or if necessary to secure exclusive rights to them, both in the U.S. and in foreign countries.

The patent and intellectual property positions of biopharmaceutical companies generally are highly uncertain, involve complex legal and factual questions, and have been and continue to be the subject of much litigation. There is no guarantee that Mast has or will develop or obtain the rights to products or processes that are patentable, that patents will issue from any pending applications or that claims allowed will be sufficient to protect the technology Mast develops or has developed or that is used by Mast, Mast s CMOs or its other service providers. In addition, any patents that are issued to Mast may be limited in scope or challenged, invalidated, infringed or circumvented, including by Mast s competitors, and rights Mast have under issued patents may not provide competitive advantages to Mast. If competitors can develop and commercialize technology and products similar to ours, Mast s ability to successfully commercialize Mast s technology and products may be impaired.

Patent applications in the U.S. are confidential for a period of time until they are published, and publication of discoveries in scientific or patent literature typically lags actual discoveries by several months. As a result, Mast cannot be certain that the inventors listed in any patent or patent application owned by Mast were the first to conceive of the inventions covered by such patents and patent applications (for U.S. patent applications filed before March 16, 2013), or that such inventors were the first to file patent applications for such inventions outside the United States and, after March 15, 2013, in the United States. In addition, changes in or different interpretations of patent laws in the United States and foreign countries may affect its patent rights and limit the number of patents Mast can obtain, which could permit others to use its discoveries or to develop and commercialize Mast s technology and products without any compensation to Mast.

Mast also relies on unpatented know-how and trade secrets and continuing technological innovation to develop and maintain its competitive position, which Mast seeks to protect, in part, through confidentiality agreements with employees, consultants, collaborators and others. Mast also has invention or patent assignment agreements with its employees and certain consultants. The steps Mast has taken to protect its proprietary rights, however, may not be adequate to preclude misappropriation of or otherwise protect Mast s proprietary information or prevent infringement of its intellectual property rights, and Mast may not have adequate remedies for any such misappropriation or infringement. In addition, it is possible that inventions relevant to its business could be developed by a person not bound by an invention assignment agreement with Mast or independently discovered by a competitor.

Mast also intends to rely on regulatory exclusivity for protection of its product candidates, if approved for commercial sale. Implementation and enforcement of regulatory exclusivity, which may consist of regulatory data protection and market protection, varies widely from country to country. Failure to qualify for regulatory exclusivity, or failure to obtain or maintain the extent or duration of such protections that Mast expects for its product candidates, if approved, could affect Mast s decision on whether to market the products in a particular country or countries or could otherwise have an adverse impact on its revenue or results of operations. For AIR001, which is administered via nebulization, Mast may rely on regulatory exclusivity for the combination of AIR001 and its delivery system. Other medications that alter pulmonary pressures include the delivery device in their U.S. and European market labels, and are approved for use only with the specified proprietary delivery device. However, there is no assurance that Mast s AIR001 product and its delivery system, if approved, will benefit from this type of market protection.

Mast may rely on trademarks, trade names and brand names to distinguish its products, if approved for commercial sale, from the products of its competitors. However, Mast s trademark applications may not be approved. Third parties may also oppose Mast s trademark applications or otherwise challenge its use of the trademarks in which case Mast may expend substantial resources to defend its trademarks and may enter into agreements with third parties that may limit Mast s use of its trademarks. In the event that its trademarks are successfully challenged, Mast could be forced to rebrand its product, which could result in loss of brand

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recognition and could require Mast to devote significant resources to advertising and marketing these new brands. Further, Mast s competitors may infringe its trademarks or Mast may not have adequate resources to enforce its trademarks.

Mast s success depends in large part on its ability to prevent competitors from duplicating or developing and commercializing equivalent versions of Mast s product candidates, but patent protection may be difficult to obtain and any issued claims may be limited.

The potential use and therapeutic benefits of inorganic nitrite, such as sodium nitrite (the API in AIR001) have been known for decades. There is substantial prior art describing the uses of inorganic nitrite in a wide range of diseases and conditions. As a result, Mast s ability to find novel and non-obvious uses of AIR001 is uncertain. Further, a patent examiner may combine numerous, disparate references in order to reject a claimed composition, formulation and/or use for obviousness. If the prior art suggests, even implicitly, the desirability of combining previously known elements, such as the use of AIR001 in a particular indication, the subsequent use of AIR001 in that indication may be unpatentable.

Mast has filed for patent protection in the U.S. and other countries to cover various methods of therapeutic use of its product candidates, including the use of inhaled inorganic nitrite for treating HFpEF. However, Mast s pending patent applications may not issue as patents, and any issued patents may not provide Mast with significant competitive advantages, because the validity or enforceability of any of those patents may be challenged and, if instituted, one or more of the challenges may be successful. Patents may be challenged in the U.S. under post-grant review proceedings, *inter partes* reexamination, *ex parte* re-examination, or challenges in district court. Any patents issued in foreign jurisdictions may be subjected to comparable proceedings lodged in various foreign patent offices. These proceedings could result in either loss of the patent or loss or reduction in the scope of one or more of the claims of the patent. Even if a patent issues, and is held valid and enforceable, competitors may be able to design around Mast s patents, such as by using pre-existing or newly developed technology, in which case competitors may not infringe Mast s issued claims and may be able to market and sell products that compete directly with ours before Mast s patents expire. In addition, Mast s pending patent applications to cover use of AIR001 for treating HFpEF are jointly owned with an independent research and educational institution and until and unless Mast obtains an exclusive license to that co-owner s rights, it may license its rights to another third-party, which could negatively affect the value of its product candidate.

The patent prosecution process is expensive and time-consuming. Mast and any future licensors and licensees may not apply for or prosecute patents on certain aspects of Mast s product candidates at a reasonable cost, in a timely fashion, or at all. Mast may not have the right to control the preparation, filing and prosecution of some patent applications related to its product candidates or technologies. As a result, these patents and patent applications may not be prosecuted and enforced in a manner consistent with the best interests of Mast. It is also possible that Mast or any future licensors or licensees will fail to identify patentable aspects of inventions made in the course of development and commercialization activities before it is too late to obtain patent protection on them. Further, it is possible that defects of form in the preparation or filing of Mast s patent applications may exist, or may arise in the future, such as with respect to proper priority claims, inventorship, assignment, or claim scope. If there are material defects in the form or preparation of its patents or patent applications, such patents or applications may be invalid or unenforceable. In addition, one or more parties may independently develop similar technologies or methods, duplicate Mast s technologies or methods, or design around the patented aspects of Mast s products, technologies or methods. Any of these circumstances could impair Mast s ability to protect its products, if approved, in ways which may have an adverse impact on its business, financial condition and operating results.

Furthermore, the issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and Mast s owned and licensed patents may be challenged in the courts or patent offices in and outside of the United States. Such challenges may result in loss of exclusivity or freedom to operate or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit its ability to stop

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others from using or commercializing similar or identical products or technology, or limit the duration of the patent protection of Mast s technology and drugs. Given the amount of time required for the development, testing and regulatory review of new drug candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, Mast s owned and licensed patent portfolio may not provide Mast with sufficient rights to exclude others from commercializing drugs similar or identical to ours.

Enforcement of intellectual property rights in countries outside the U.S., including China in particular, has been limited or non-existent. Future enforcement of patents and proprietary rights in many other countries will likely be problematic or unpredictable. Moreover, the issuance of a patent in one country does not assure the issuance of a similar patent in another country. Claim interpretation and infringement laws vary by nation, so the extent of any patent protection is uncertain and may vary in different jurisdictions.

Obtaining and maintaining Mast s patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and Mast s patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and applications are required to be paid to the U.S. Patent and Trademark Office, or USPTO, and various governmental patent agencies outside of the U.S. in several stages over the lifetime of the patents and applications. The USPTO and various non-U.S. governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process and after a patent has issued. There are situations in which non-compliance can result in decreased patent term adjustment or in abandonment or lapse of the patent or patent application, leading to partial or complete loss of patent rights in the relevant jurisdiction.

Third parties may claim that Mast s products, if approved, infringe on their proprietary rights and may challenge the approved use or uses of a product or Mast s patents rights through litigation or administrative proceedings, and defending such actions may be costly and time consuming, divert management attention away from Mast s business, and result in an unfavorable outcome that could have an adverse effect on its business.

Mast s commercial success depends on its ability and the ability of its CMOs and component suppliers to develop, manufacture, market and sell Mast s products and product candidates and use its proprietary technologies without infringing the proprietary rights of third parties. Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which Mast is or may be developing products. As the industries in which Mast operates (biopharmaceutical, specialty pharmaceutical, biotechnology and pharmaceutical) expand and more patents are issued, the risk increases that Mast will be subject to claims that its products or product candidates, or their use or manufacture, infringe the rights of others. Because patent applications can take many years to publish and issue, there currently may be pending applications, unknown to Mast, that may later result in issued patents that Mast s products, product candidates or technologies infringe, or that the process of manufacturing its products or any of their respective component materials, or the component materials themselves, infringe, or that the use of Mast s products, product candidates or technologies infringe.

Mast or its CMOs or component material suppliers may be exposed to, or threatened with, litigation by third parties alleging that Mast s products, product candidates and/or technologies infringe their patents and/or other intellectual property rights, or that one or more of the processes for manufacturing its products or any of their respective component materials, or the component materials themselves, or the use of Mast s products, product candidates or technologies, infringe their patents and/or other intellectual property rights. If a third-party patent or other intellectual property right is found to cover Mast s products, product candidates, technologies or their uses, or any of the underlying manufacturing processes or components, Mast could be required to pay damages and could be unable to

commercialize its products or use its technologies or methods unless Mast is able to

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obtain a license to the patent or intellectual property right. A license may not be available to Mast in a timely manner or on acceptable terms, or at all. In addition, during litigation, the third-party alleging infringement could obtain a preliminary injunction or other equitable remedy that could prohibit Mast from making, using, selling or importing its products, technologies or methods.

There generally is a substantial amount of litigation involving patent and other intellectual property rights in the industries in which Mast operate and the cost of such litigation may be considerable. Mast can provide no assurance that its product candidates or technologies will not infringe patents or rights owned by others, licenses to which might not be available to Mast in a timely manner or on acceptable terms, or at all. If a third party claims that Mast or Mast s CMOs or component material suppliers infringe its intellectual property rights, Mast may face a number of issues, including, but not limited to:

- infringement and other intellectual property claims which, with or without merit, may be expensive and time consuming to litigate and may divert Mast s management s time and attention from its core business;
- substantial damages for infringement, including the potential for treble damages and attorneys fees, which Mast may have to pay if it is determined that the product and/or its use at issue infringes or violates the third party s rights;
- a court prohibiting Mast from selling or licensing the product unless the third-party licenses its intellectual property rights to Mast, which it may not be required to do;
- if a license is available from the third party, Mast may have to pay substantial royalties, fees and/or grant cross-licenses to the third party; and
- redesigning Mast s products or processes so they do not infringe, which may not be possible or may require substantial expense and time.

No assurance can be given that patents do not exist, have not been filed, or could not be filed or issued, which contain claims covering Mast s products, product candidates or technology or those of Mast s CMOs or component material suppliers or the use of its products, product candidates or technologies. Because of the large number of patents issued and patent applications filed in the industries in which Mast operates, there is a risk that third parties may allege they have patent rights encompassing Mast s products, product candidates or technologies, or those of Mast s CMOs or component material suppliers, or uses of its products, product candidates or technologies. With regard to AIR001, Mast is aware of issued patents and pending patent applications with claims related to compositions of sodium nitrite and therapeutic uses of sodium nitrite and/or inorganic nitrite. Mast does not believe that use of inhaled AIR001 to treat HFpEF, if approved, would infringe on issued patents. However, if AIR001 is approved for commercial sale, the third-party owners of patents issued currently or in the future may allege that Mast s product infringes on their patents, in which case Mast may become involved in costly and time consuming litigation and/or administrative proceedings to defend the manufacture and/or use of its product, or Mast may agree to pay substantial amounts to obtain licenses from such parties, which could negatively affect Mast s business prospects, operating results and financial condition.

In the future, it may be necessary for Mast to enforce its proprietary rights, or to determine the scope, validity and unenforceability of other parties proprietary rights, through litigation or other dispute proceedings, which may be costly, and to the extent Mast is unsuccessful, adversely affect its rights. In these proceedings, a court or administrative body could determine that Mast s claims, including those related to enforcing patent rights, are not valid or that an alleged infringer has not infringed its rights. The uncertainty resulting from the mere institution and continuation of any patent- or other proprietary rights-related litigation or interference proceeding could have a material and adverse effect on Mast s business prospects, operating results and financial condition.

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Risks Related to Mast s Industry

Mast expects intense competition in the marketplace for Mast s product candidates, should any of them receive regulatory approval.

The industries in which Mast operates (biopharmaceutical, specialty pharmaceutical, biotechnology and pharmaceutical) are highly competitive and subject to rapid and significant change. Mast is aware of many other organizations developing drug products and other therapies intended to treat or cure the diseases or conditions in which Mast is developing or plan to develop its product candidates. Developments by others may render potential application of any of Mast s product candidates in a particular indication obsolete or noncompetitive, even prior to completion of its development and approval for that indication. If successfully developed and approved, Mast expects its product candidates will face intense competition. Mast may not be able to compete successfully against organizations with competitive products, particularly large pharmaceutical companies. Many of Mast s potential competitors have significantly greater financial, technical and human resources than Mast does, and may be better equipped to develop, manufacture, market and distribute products. Many of these companies operate large, well-funded research, development and commercialization programs, have extensive experience in nonclinical and clinical studies, obtaining FDA and other regulatory approvals and manufacturing and marketing products, and have multiple products that have been approved or are in late-stage development. Smaller companies may also prove to be significant competitors, particularly through collaborative arrangements with large pharmaceutical and biotechnology companies. Furthermore, heightened awareness on the part of academic institutions, government agencies and other public and private research organizations of the potential commercial value of their inventions have led them to actively seek to commercialize the technologies they develop, which increases competition for investment in Mast s programs. Competitive products may be more effective, or more effectively marketed and sold, than ours, which would have a material adverse effect on Mast s ability to generate revenue.

Mast is subject to uncertainty relating to healthcare reform measures and reimbursement policies that, if not favorable to Mast s products, could hinder or prevent its products commercial success, if any of Mast s product candidates are approved.

The unavailability or inadequacy of third-party payer coverage and reimbursement could negatively affect the market acceptance of its product candidates and the future revenues Mast may expect to receive from those products. The commercial success of Mast s product candidates, if approved, will depend in part on the extent to which the costs of such products will be covered by third-party payers, such as government health programs, commercial insurance and other organizations. These third-party payers are increasingly challenging the prices and examining the medical necessity and cost-effectiveness of medical products and services, in addition to their safety and efficacy. If these third-party payers do not consider Mast s products to be cost-effective compared to other therapies, they may not cover its products after approval as a benefit under their plans or, even if they do, the level of payment may not be sufficient to allow Mast to sell its products on a profitable basis. In the case of products administered in an inpatient hospital setting, a level of payment that is inadequate to cover the cost to hospitals of providing and administering Mast s products to patients, could delay market acceptance of or limit its ability to penetrate the markets for its products.

Significant uncertainty exists as to the reimbursement status for newly approved drug products, including coding, coverage and payment. There is no uniform policy requirement for coverage and reimbursement for drug products among third-party payers in the United States, therefore coverage and reimbursement for drug products can differ significantly from payer to payer. The coverage determination process is often a time-consuming and costly process that will require Mast to provide scientific and clinical support for the use of its products to each payer separately, with no assurance that coverage and adequate payment will be applied consistently or obtained. The process for determining whether a payer will cover and how much it will reimburse a product may be separate from the process of

seeking approval of the product or for setting the price of the product. Even if reimbursement is provided, market acceptance of its products may be adversely affected if the amount of payment for Mast s products proves to be unprofitable for healthcare providers or less profitable than alternative

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treatments or if administrative burdens make Mast s products less desirable to use. Third-party payer reimbursement to providers of Mast s products, if approved, may be subject to a bundled payment that also includes the procedure of administering Mast s products. To the extent there is no separate payment for Mast s product(s), there may be further uncertainty as to the adequacy of reimbursement amounts.

The continuing efforts of the government, private insurance companies, and other organizations to contain or reduce costs of healthcare may adversely affect:

- Mast s ability to set an appropriate price for its products;
- the rate and scope of adoption of Mast s products by healthcare providers;
- Mast s ability to generate revenue or achieve or maintain profitability;
- the future revenue and profitability of Mast s potential customers, suppliers and collaborators; and
- Mast s access to additional capital.

Mast s ability to successfully commercialize its products will depend in part on the extent to which governmental authorities, private health insurers and other organizations establish what Mast believes are appropriate coverage and reimbursement for its products. The containment of healthcare costs has become a priority of federal and state governments and the prices of drug products have been a focus in this effort. For example, there have been several recent U.S. Congressional inquiries and proposed bills designed to, among other things, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drugs. Mast expects that federal, state and local governments in the U.S. will continue to consider legislation directed at lowering the total cost of healthcare. In addition, in certain foreign markets, the pricing of drug products is subject to government control and reimbursement may in some cases be unavailable or insufficient. It is uncertain whether and how future legislation, whether domestic or abroad, could affect prospects for its product candidates or what actions federal, state, or private payers for healthcare treatment and services may take in response to any such healthcare reform proposals or legislation. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures reforms may prevent or limit its ability to generate revenue, attain profitability or commercialize Mast s product candidates.

Mast faces potential product liability exposure and, if successful claims are brought against it, Mast may incur substantial liability for a product or product candidate and may have to limit its commercialization. In the future, Mast anticipates that it will need to obtain additional or increased product liability insurance coverage and it is uncertain whether such increased or additional insurance coverage can be obtained on commercially reasonable terms, if at all.

Mast s business (in particular, the use of Mast s product candidates in clinical studies and the sale of any products for which Mast obtain marketing approval) will expose Mast to product liability risks. Product liability claims might be brought against Mast by patients, healthcare providers, pharmaceutical companies or others selling Mast s products. If

Mast cannot successfully defend itself against any such claims, Mast will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

decreased demand for Mast s products and loss of revenue;

impairment of Mast s business reputation;

delays in enrolling patients to participate in Mast s clinical studies;

withdrawal of clinical study participants;

a clinical hold, suspension or termination of a clinical study or amendments to a study design;

significant costs of related litigation;

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substantial monetary awards to patients or other claimants; and

the inability to commercialize Mast s products and product candidates.

Mast maintains limited product liability insurance for its clinical studies, but its insurance coverage may not reimburse Mast or may not be sufficient to reimburse Mast for all expenses or losses it may suffer. Moreover, insurance coverage is becoming increasingly expensive and, in the future, Mast may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect it against losses.

Mast expects that it will expand its insurance coverage to include the sale of commercial products if Mast obtains marketing approval of any of its product candidates, but Mast may be unable to obtain product liability insurance on commercially acceptable terms or may not be able to maintain such insurance at a reasonable cost or in sufficient amounts to protect Mast against potential losses. Large judgments have been awarded in class action lawsuits based on drug products that had unanticipated side effects. A successful product liability claim or series of claims brought against Mast could cause its stock price to fall and, if judgments exceed Mast s insurance coverage, could decrease Mast s cash and adversely affect Mast s business.

Risks Related to Mast s Common Stock

If Mast is unable to maintain compliance with NYSE MKT continued listing standards and policies, the NYSE MKT may commence proceedings to delist Mast s common stock, and in some cases, determine to suspend trading in Mast s common stock immediately without an opportunity to propose a plan that could enable Mast to regain compliance, which would likely cause the liquidity and market price of its common stock to decline and you could lose your investment.

Mast s common stock is listed on the NYSE MKT (NYSE MKT or the Exchange). The NYSE MKT retains substantial discretion to, at any time and without notice, suspend dealings in or remove from any security from listing. The NYSE MKT has adopted continued listing standards related to an issuer s financial condition, operating results, disposal of assets, reduction in operations, compliance with listing agreements and SEC requirements, and the extent of public distribution and market value of the issuer s listed security, and the Exchange will consider suspending dealings in, or delisting, securities of an issuer that does not meet those standards. For example, the NYSE MKT will consider suspending dealings in, or delisting, securities of an issuer that has stockholders equity of less than $6 million if that issuer has sustained losses from continuing operations and/or net losses in its five most recent fiscal years. Mast has had a loss from operations and net loss in each of its five most recent fiscal years. As of December 31, 2016, Mast s stockholders equity was $9.8 million. If Mast s stockholders equity falls below $6 million, the Exchange may determine that Mast is no longer suitable for listing and may commence delisting proceedings pursuant Section 1003(a)(iii) of the NYSE MKT Company Guide.

The NYSE MKT will also normally consider suspending dealings in, or removing from the list, a common stock selling for a substantial period of time at a low price per share if the issuer fails to effect a reverse split of the stock within a reasonable time after being notified that the Exchange deems such action to be appropriate under the circumstances. Mast understands NYSE MKT policy to be that, if the 30-day average closing price of an issuer s common stock is less than $0.20 per share, the Exchange will alert the issuer to the fact that it may have a low selling price deficiency if, in six months, the 30-day average closing price of the issuer s common stock is still, or again, less than $0.20 per share. If, in six months, the 30-day average closing price of the issuer s common stock is in fact less than $0.20 per share, the issuer should expect to receive a deficiency letter from the Exchange notifying the issuer that it is below the continued listing criteria set forth in Section 1003(f)(v) of the NYSE MKT Company Guide and the issuer would have to submit a plan to the Exchange to regain compliance with its listing standards, have that plan

accepted by the Exchange, and subsequently perform against that plan, otherwise the Exchange would commence delisting proceedings. The market price for Mast s common stock historically has been highly volatile, and Mast expects it will continue to be highly volatile in the foreseeable future. If the 30-day average closing price of Mast s common stock falls below $0.20 per share, Mast may, in six

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months from that time, be considered by the Exchange to be out of compliance with Section 1003(f)(v) of the NYSE MKT Company Guide and the Exchange may require Mast to effect a reverse split of its common stock within a reasonable time to regain compliance or otherwise commence delisting proceedings.

In addition, Mast is aware of a NYSE MKT policy that, if an issuer s common stock trades below $0.06 per share, the staff of the Exchange will determine that issuer s stock is no longer suitable for listing on the NYSE MKT and will halt trading in and commence proceedings to delist that stock from the Exchange immediately. The issuer may appeal the delisting, but the issuer s stock will continue to be suspended from trading on the Exchange during the appeal process and the appeal may be unsuccessful.

There is no assurance that Mast will be able to maintain compliance with NYSE MKT continued listing standards and/or policies. The delisting of its common stock from the NYSE MKT likely would reduce the trading volume and liquidity in Mast s common stock, may lead to decreases in the trading price of Mast s common stock, and may also materially impair Mast s stockholders ability to buy and sell shares. In addition, the delisting of its common stock could significantly impair its ability to raise additional capital, which may be necessary for to execute on Mast s business strategy.

If Mast s common stock were delisted and determined to be a penny stock, a broker-dealer may find it more difficult to trade Mast s common stock and an investor may find it more difficult to acquire or dispose of Mast s common stock in the secondary market.

If Mast s common stock was removed from listing with the NYSE MKT, it may be subject to the so-called penny stock rules. The SEC has adopted regulations that define a penny stock to be any equity security that has a market price per share of less than $5.00, subject to certain exceptions, such as any securities listed on a national securities exchange. For any transaction involving a penny stock, unless exempt, the rules impose additional sales practice requirements on broker-dealers, subject to certain exceptions. If Mast s common stock were delisted and determined to be a penny stock, a broker-dealer may find it more difficult to trade Mast s common stock and an investor may find it more difficult to acquire or dispose of Mast s common stock on the secondary market.

The market price of Mast s common stock historically has been and likely will continue to be highly volatile.

The market price for Mast s common stock historically has been highly volatile, and the market for its common stock has from time to time experienced significant price and volume fluctuations, based both on Mast s operating performance and for reasons that appear to Mast unrelated to its operating performance. For instance, based on closing prices, the market price for its common stock dropped approximately 45% following Mast s announcement of an underwritten public offering of equity securities on February 9, 2016, and it dropped approximately 80% following Mast s announcement of top-line results of Mast s Phase 3 clinical study of vepoloxamer in sickle cell disease on September 20, 2016. Conversely, the market price for Mast s common stock increased by more than 55% during one trading day in January 2014, in the absence of any news release by Mast or rumors of which Mast was aware. The market price of its common stock may fluctuate significantly in response to a number of factors, including:

- the level of Mast s financial resources;
- announcements of entry into or consummation of a financing or strategic transaction;

results from a clinical study of a product candidate;

delays in the completion of Mast s clinical studies or termination of a clinical study, including due to difficulties with patient enrollment or safety issues or inability to produce sufficient quantities of clinical trial material;

FDA or international regulatory actions and regulatory developments in the U.S. and foreign countries;

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announcements of new products or technologies, commercial relationships or other events (including clinical study results and regulatory events and actions) by Mast or its competitors;

announcements of difficulties or delays in commercial manufacture or supply of Mast s drug products;

market conditions in the pharmaceutical, biopharmaceutical, specialty pharmaceutical and biotechnology sectors;

developments concerning intellectual property rights generally or those of Mast or Mast s competitors;

changes in securities analysts estimates of Mast s financial performance or deviations in Mast s business and the trading price of its common stock from the estimates of securities analysts;

events affecting any future collaborations, commercial agreements and grants;

fluctuations in stock market prices and trading volumes of similar companies;

sales of large blocks of its common stock, including sales by significant stockholders, Mast s executive officers or directors or pursuant to shelf or resale registration statements that register shares of Mast s common stock that may be sold by Mast or certain of its current or future stockholders;

discussion of Mast or its stock price by the financial and scientific press and in online investor communities;

commencement of delisting proceedings by the NYSE MKT;

additions or departures of key personnel; and

changes in third-party payer coverage or reimbursement policies.

As evidenced by the September 2016 decline, the realization of any of the foregoing could have a dramatic and adverse impact on the market price of Mast s common stock. In addition, class action litigation has often been instituted against companies whose securities have experienced a substantial decline in market price. Moreover, regulatory entities often undertake investigations of investor transactions in securities that experience volatility following an announcement of a significant event or condition. Any such litigation brought against Mast or any such investigation involving its investors could result in substantial costs and a diversion of management s attention and resources, which could harm Mast s business, operating results and financial condition.

Mast s stock price could decline significantly based on progress with and results of its clinical studies and regulatory agency decisions affecting development of its product candidates.

Mast expects announcements of progress with and results of clinical studies of its product candidates and regulatory decisions (by Mast, the FDA, or another regulatory agency) to affect Mast s stock price. Stock prices of companies in its industry have declined significantly when such results and decisions were unfavorable or perceived to be negative or discouraging or when a product candidate did not otherwise meet expectations, and, as discussed above, the price of Mast s common stock dropped significantly following its September 20, 2016 announcement that Mast s Phase 3 clinical study of vepoloxamer in sickle cell disease did not meet the primary efficacy endpoint. If progress in clinical studies or study results are not viewed favorably by Mast or third parties, including investors, analysts, potential collaborators, the academic and medical communities and regulators, its stock price could decline significantly and you could lose your investment in Mast s common stock.

Mast may report top-line or interim clinical and nonclinical study data from time to time, which is based on preliminary analysis of then-available data. Such preliminary findings and conclusions are subject to change following a more comprehensive review of the study data and, in the case of interim data, completion of the study. In addition, results of clinical and nonclinical studies often are subject to different interpretations. Mast may interpret or weigh the importance of study data differently than third parties, including those noted above. Others may not accept or agree with its analysis of study data, which could impact the approvability of Mast s product candidates and/or the value of Mast s development programs and company in general.

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Sales of substantial amounts of Mast s common stock or the perception that such sales may occur could cause the market price of its common stock to decline significantly, even if Mast s business is performing well.

The market price of Mast s common stock could decline as a result of sales by, or the perceived possibility of sales by, Mast or its existing stockholders of shares of Mast s common stock. Sales by Mast s existing stockholders might also make it more difficult for Mast to sell equity securities at a time and price that Mast deems appropriate. Under Mast s existing ATM program, as of December 31, 2016, Mast may sell up to approximately $18 million of additional shares of Mast s common stock. The shelf registration statement on Form S-3 under which the ATM program is registered may be used to register the sale and issuance of more than $99 million of additional securities, subject to limitations if Mast s public float is less than $75 million described above. In addition, as of March 2, 2017, Mast has outstanding warrants to purchase approximately 81 million additional shares of its common stock. All of those warrants have an exercise price of less than $1.00 per share; however, based on the closing price of Mast s common stock on March 2, 2017, no outstanding warrants are in-the-money. Collectively, the ATM program, the shelf registration statement and any in-the-money warrants, may increase the likelihood of sales of substantial amounts of Mast s shares, or the perception that substantial sales may occur, by Mast or its existing securityholders from time to time, which could cause the market price of Mast s common stock to decline significantly.

Anti-takeover provisions in Mast s charter documents and under Delaware law may make an acquisition of Mast, which may be beneficial to its stockholders, more difficult, which could depress Mast s stock price.

Mast is incorporated in Delaware. Certain anti-takeover provisions of Delaware law and Mast s charter documents as currently in effect may make a change in control of Mast s company more difficult, even if a change in control would be beneficial to Mast s stockholders. Mast s bylaws limit who may call a special meeting of stockholders and establish advance notice requirements for nomination of individuals for election to its board of directors or for proposing matters that can be acted upon at stockholders meetings. Delaware law also prohibits corporations from engaging in a business combination with any holders of 15% or more of their capital stock until the holder has held the stock for three years unless, among other possibilities, the board of directors approves the transaction. The Mast Board may use these provisions to prevent changes in the management and control of Mast. Also, under applicable Delaware law, Mast s board of directors may adopt additional anti-takeover measures in the future. In addition, provisions of certain compensatory contracts with its management, such as equity award agreements, may have an anti-takeover effect by resulting in accelerated vesting of outstanding equity securities held by Mast s executive officers.

Because Mast does not expect to pay dividends with respect to Mast s common stock in the foreseeable future, you must rely on stock appreciation for any return on your investment.

Mast has paid no cash dividends on any of its common stock to date, and Mast currently intends to retain its future earnings, if any, to fund the development and growth of its business. As a result, with respect to its common stock, Mast does not expect to pay any cash dividends in the foreseeable future, and payment of cash dividends, if any, will also depend on Mast s financial condition, results of operations, capital requirements and other factors and will be at the discretion of Mast s board of directors. Furthermore, Mast is subject to various laws and regulations that may restrict its ability to pay dividends and Mast may in the future become subject to contractual restrictions on, or prohibitions against, the payment of dividends. Currently, Mast s debt facility with Hercules prohibits Mast from declaring and paying any cash dividend on any class of stock or other equity interest. Due to Mast s intent to retain any future earnings rather than pay cash dividends on its common stock and applicable laws, regulations and contractual obligations that may restrict its ability to pay dividends on its common stock, the success of your investment in Mast s common stock will likely depend entirely upon any future appreciation and Mast s common stock may not appreciate.

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If Mast were to issue shares of its common stock or preferred stock that are available for issuance, Mast s stock price could decline.

Mast has 500,000,000 shares of authorized common stock and, as of March 2, 2017, approximately 115 million of such authorized shares were not outstanding or reserved for issuance under outstanding warrants, options, equity incentive plans or other rights. Subject to applicable securities laws and stock exchange listing requirements, the Mast Board is authorized under its charter documents to sell and issue Mast s authorized, but unissued, common stock without stockholder approval and may do so to satisfy Mast s capital requirements or finance the expansion of Mast s product pipeline. The Mast Board also is authorized to issue and sell up to 1,000,000 shares of preferred stock without stockholder approval, at a purchase price approved by the board. The preferred stock may have rights that are superior to the rights of the holders of its common stock. The sale or the proposed sale of substantial amounts of Mast s common stock, preferred stock and/or securities convertible into shares of Mast s common or preferred stock in the public markets may adversely affect the market price of Mast s common stock. Mast s stockholders may also experience substantial dilution.

Risks Related to Savara

Risks Related to Savara s Capital Requirements and Financial Condition

Savara has a limited operating history and has incurred significant losses since inception, and expects that it will continue to incur losses for the foreseeable future, which makes it difficult to assess Savara s future viability.

Savara is a clinical development-stage biopharmaceutical company with a limited operating history upon which to evaluate its business and prospects. Savara has not been profitable since it commenced operations in 2008, and may not achieve profitability. In addition, Savara has limited history as an organization and has not yet demonstrated an ability to successfully overcome many of the risks and uncertainties frequently encountered by companies in new and rapidly evolving fields, particularly in the biopharmaceutical industry. Drug development is a highly speculative undertaking and involves a substantial degree of risk. To date, Savara has not obtained any regulatory approvals for any of its product candidates, commercialized any of its product candidates or generated any product revenue. Savara has devoted significant resources to research and development and other expenses related to its ongoing clinical trials and operations, in addition to acquiring product candidates.

For the year ended December 31, 2016, Savara incurred losses from operations of $10.9 million, and net cash used in operating activities was $8.4 million. At December 31, 2016, Savara had an accumulated deficit of $38.4 million, its cash, cash equivalents and investment securities were $13.4 million, and its working capital was $11.2 million. Savara expects to continue to incur substantial operating losses for the next several years as it advances its product candidates through clinical development, global regulatory approvals, and commercialization. No revenue from operations will likely be available until, and unless, one of its product candidates is approved by the FDA or another regulatory agency and successfully marketed, or Savara enters into an arrangement that provides for licensing revenue or other partnering-related funding, outcomes which Savara may not achieve.

Savara will require substantial additional financing to obtain regulatory approval for AeroVanc and Molgradex, and a failure to obtain this necessary capital when needed on acceptable terms, or at all, could force Savara to delay, limit, reduce or terminate Savara s product development efforts or other operations.

Since inception, most of Savara s resources have been dedicated to the development and acquisition of its product candidates, AeroVanc and Molgradex. Savara believes that its existing capital resources will be sufficient to fund its operations for up to 12 months. Savara may raise additional capital from its existing investors prior to the closing of

the Merger and may raise additional capital from new investors following the closing of the Merger. Savara will require significant additional capital to continue operations and execute on its current business strategy to develop AeroVanc and Molgradex through to regulatory approval. Savara cannot

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estimate with reasonable certainty the actual amounts necessary to successfully complete the development and commercialization of its product candidates and there is no certainty that Savara will be able to raise the necessary capital on reasonable terms or at all.

Savara s capital requirements for the foreseeable future will depend in large part on, and could increase significantly as a result of, its expenditures on its development programs. Future expenditures on its development programs are subject to many uncertainties, and will depend on, and could increase significantly as a result of, many factors, including:

- the number, size, complexity, results and timing of its drug development programs;
- the timing and terms of any collaborative or other strategic arrangement that Savara may establish;
- the number of clinical and nonclinical studies necessary to demonstrate acceptable evidence of the safety and efficacy of its product candidates;
- changes in standards of care which could increase the size and complexity of clinical studies;
- the number of patients who participate, the rate of enrollment, and the ratio of randomized to evaluable patients in each clinical study;
- the ability to locate patients to participate in a study given the limited number of patients available for orphan or ultra-orphan indications;
- the number and location of sites and the rate of site initiation in each study;
- the duration of patient treatment and follow-up;
- the potential for additional safety monitoring or other post-marketing studies that may be requested by regulatory agencies;
- the time and cost to manufacture clinical trial material and commercial product, including process development and scale-up activities, and to conduct stability studies, which can last several years;
- the degree of difficulty and cost involved in securing alternate manufacturers or suppliers of drug product, components or delivery devices, as necessary to meet FDA requirements and/or commercial demand;

the costs, requirements, timing of, and the ability to, secure regulatory approvals;

the extent to which Savara increases its workforce and the costs involved in recruiting, training and incentivizing new employees;

the costs related to developing, acquiring and/or contracting for sales, marketing and distribution capabilities, supply chain management capabilities, and regulatory compliance capabilities, if Savara obtains regulatory approval for a product candidate and commercializes it without a partner;

the costs involved in evaluating competing technologies and market developments or the loss in sales in case of such competition; and

the costs involved in establishing, enforcing or defending patent claims and other proprietary rights.

Additional capital may not be available when Savara needs it, on terms that are acceptable to it or at all. If adequate funds are not available to Savara on a timely basis, it will be required to delay, limit, reduce or terminate its establishment of sales and marketing, manufacturing or distribution capabilities, development activities or other activities that may be necessary to commercialize its product candidates, conduct preclinical or clinical studies, or other development activities.

If Savara raises additional capital through marketing and distribution arrangements or other collaborations, strategic alliances or licensing arrangements with third parties, it may have to relinquish certain valuable rights to

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its product candidates, technologies, future revenue streams or research programs or grant licenses on terms that may not be favorable. If Savara raises additional capital through public or private equity offerings, the ownership interest of its stockholders will be diluted and the terms of any new equity securities may have preferential rights over its common stock. If Savara raises additional capital through debt financing, it may be subject to covenants limiting or restricting its ability to take specific actions, such as incurring additional debt or making capital expenditures, or subject to specified financial ratios, any of which could restrict its ability to develop and commercialize its product candidates or operate as a business.

Risks Related to Savara s Business Strategy and Operations

Savara is substantially dependent upon the clinical, regulatory and commercial success of its two product candidates, AeroVanc and Molgradex. Clinical drug development involves a lengthy and expensive process with an uncertain outcome, results of earlier studies and trials may not be predictive of future trial results, and Savara s clinical trials may fail to adequately demonstrate to the satisfaction of regulatory authorities the safety and efficacy of its two product candidates.

The success of Savara s business is dependent on its ability to advance the clinical development of AeroVanc for the treatment of persistent methicillin-resistant *Staphylococcus aureus* (MRSA) infections in the lungs of cystic fibrosis patients and Molgradex for the treatment of patients with pulmonary alveolar proteinosis (PAP). The AeroVanc Phase 3 study is scheduled to start in the United States and Canada in Q3 2017 and the Molgradex Phase 2/3 clinical study (IMPALA) is ongoing in Europe and Japan. Savara expects to announce top-line results from the Phase 2/3 study of Molgradex in the first quarter of 2018.

Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. A failure of one or more of Savara s clinical trials can occur at any time during the clinical trial process. The results of preclinical studies and early clinical trials of Savara s product candidates may not be predictive of the results of later-stage clinical trials. There is a high failure rate for drugs proceeding through clinical trials, and product candidates in later stages of clinical trials may fail to show the required safety and efficacy despite having progressed through preclinical studies and initial clinical trials. A number of companies in the pharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or adverse safety profiles, notwithstanding promising results in earlier clinical trials, and Savara cannot be certain that it will not face similar setbacks. Even if Savara s clinical trials are completed, the results may not be sufficient to obtain regulatory approval for its product candidates.

Given the development nature of Savara s product candidates, Savara is subject to risks associated with initiating, completing and achieving positive outcomes from its current and future clinical trials, including:

- slow implementation, enrollment and completion of the clinical trials;
- inability to enroll enough patients in the clinical trials;
- low patient compliance and adherence to dosing and reporting requirements, for example incomplete reporting of patient reported outcomes in the clinical trials or missed doses;

lack of safety and efficacy in the clinical trials;

delays in manufacture of supplies for both drug and device components due to delays in formulation, process development, or manufacturing activities;

requirements for additional nonclinical or clinical studies based on changes to formulation and/or changes to regulatory requirements;

requirements for additional clinical studies based on inconclusive clinical results or changes in market, standard of care, and/or regulatory requirements;

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If Savara successfully completes the necessary clinical trials for its product candidates, its success will be subject to the risks associated with obtaining regulatory approvals, product launch, and commercialization, including:

- FDA rejection of Savara s NDA submissions for its product candidates;
- regulatory rejection in the EU, Japan, and other markets;
- delays during regulatory review and/or requirements for additional CMC, nonclinical, or clinical studies, resulting in increased costs and/or delays in marketing approval and subsequent commercialization of the product candidates in the United States and other markets;
- inability to consistently manufacture commercial supplies of drug and delivery devices resulting in slowed market development and lower revenue;
- poor commercial sales due to:
  - the ability of Savara s future sales organization or its potential commercialization partners to effectively sell the product candidates;
  - Savara s lack of success in educating physicians and patients about the benefits, administration and use of its product candidates;
  - the availability, perceived advantages, relative cost, relative safety and relative efficacy of other products or treatments for the targeted indications of the product candidates;
  - low patient demand for the product candidates;
  - poor prescription coverage and inadequate reimbursement for its product candidates;
- Savara s inability to enforce its intellectual property rights in and to its product candidates; and
- reduction in the safety profile of its product candidates following approval.

Many of these clinical, regulatory and commercial matters are beyond Savara s control and are subject to other risks described elsewhere in this Risk Factors section. Accordingly, Savara cannot assure that it will be able to advance its product candidates further through final clinical development, or obtain regulatory approval of, commercialize or

generate significant revenue from them. If Savara cannot do so, or are significantly delayed in doing so, its business will be materially harmed.

If Savara fails to attract and retain senior management and key scientific personnel, it may be unable to successfully develop and commercialize its product candidates.

Savara has historically operated with a limited number of employees that manage third-parties for most development activities. Institutional knowledge is concentrated within a small number of employees. Savara s success depends in part on its continued ability to attract, retain and motivate highly qualified management, clinical and scientific personnel. Savara s future success is highly dependent upon the contributions of its senior management, as well as its senior scientists and other members of its senior management team. The loss of services of any of these individuals, who all have at-will employment arrangements with Savara, could delay or prevent the successful development of its product pipeline, completion of its planned clinical trials or the commercialization of its product candidates.

Replacing key employees may be a difficult, costly and protracted process, and Savara may not have other personnel with the capacity to assume all the responsibilities of a key employee upon his/her departure. Transition periods can be difficult to manage and may cause disruption to its business. In addition, there may be intense competition from other companies and organizations for qualified personnel. Other companies and organizations with which Savara competes for personnel may have greater financial and other resources and different risk profiles than Savara, and a history of successful development and commercialization of its product candidates. If Savara cannot attract and retain skilled personnel, as needed, Savara may not achieve its development and other goals.

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In addition, the success of Savara s business will depend on its ability to develop and maintain relationships with respected service providers and industry-leading consultants and advisers. If Savara cannot develop and maintain such relationships, as needed, the rate and success at which Savara can develop and commercialize product candidates may be limited. In addition, its outsourcing strategy, which has included engaging consultants that spend considerable time in its office to manage key functional areas, may subject Savara to scrutiny under labor laws and regulations, which may divert management time and attention and have an adverse effect on its business and financial condition.

Savara does not have, and does not have plans to establish manufacturing facilities. Savara completely relies on third parties for the manufacture and supply of its clinical trial drug and delivery device supplies and, if approved, commercial product materials. The loss of any of these vendors or a vendor s failure to provide Savara with an adequate supply of clinical trial or commercial product material in a timely manner and on commercially acceptable terms, or at all, could harm its business.

Savara outsources the manufacture of its product candidates and does not plan to establish its own manufacturing facilities. To manufacture Savara s product candidates, Savara has made numerous custom modifications at CMOs, making Savara highly dependent on these CMOs. For clinical and commercial supplies, if approved, Savara has supply agreements with third party CMOs for drug substance, finished drug product, drug delivery devices and other necessary components of its product candidates. While Savara has secured long-term commercial supply agreements with many of the third party CMOs, Savara would need to negotiate agreements for commercial supply with several important CMOs, and Savara may not be able to reach agreement on acceptable terms. In addition, Savara relies on these third parties to conduct or assist Savara in key manufacturing development activities, including qualification of equipment, developing and validating methods, defining critical process parameters, releasing component materials and conducting stability testing, among other things. If these third parties are unable to perform their tasks successfully in a timely manner, whether for technical, financial or other reasons, Savara may be unable to secure clinical trial material, or commercial supply material if approved, which likely would delay the initiation, conduct or completion of its clinical studies or prevent Savara from having enough commercial supply material for sale, which would have a material and adverse effect on its business.

All manufacturers of Savara s clinical trial material and, if approved, commercial product, including drug substance manufacturers, must comply with cGMP requirements enforced by the FDA through its facilities inspection program and applicable requirements of foreign regulatory authorities. These requirements include quality control, quality assurance and the maintenance of records and documentation. Manufacturers of Savara s clinical trial material may be unable to comply with these cGMP requirements and with other FDA, state and foreign regulatory requirements. While Savara or its representatives generally monitor and audit its manufacturers systems, Savara does not have full control over their ongoing compliance with these regulations. And while the responsibility to maintain cGMP compliance is shared between Savara and the third-party manufacturer, Savara bears ultimately responsibility for its supply chain and compliance with regulatory standards. Failure to comply with these requirements may result in fines and civil penalties, suspension of production, suspension or delay or failure to obtain product approval, product seizure or recall, or withdrawal of product approval.

Currently, Savara does not have alternative vendors to back up its primary vendors of clinical trial material or, if approved, commercial supply material. Identification of and discussions with other vendors may be protracted and/or unsuccessful, or these new vendors may be unsuccessful in producing the same results as the current primary vendors producing the material. Therefore, if its primary vendors become unable or unwilling to perform their required activities, Savara could experience protracted delays or interruptions in the supply of clinical trial material and, ultimately, product for commercial sale, which would materially and adversely affect its development programs, commercial activities, operating results and financial condition. In addition, the FDA or regulatory authorities outside of the United States may require that Savara have an alternate manufacturer of a drug product before approving it for

marketing and sale in the United States or abroad and securing such

alternate manufacturer before approval of an NDA could result in considerable additional time and cost prior to NDA approval.

Any new manufacturer or supplier of finished drug product or its component materials, including drug substance and delivery devices, would be required to qualify under applicable regulatory requirements and would need to have sufficient rights under applicable intellectual property laws to the method of manufacturing of such product or ingredients required by Savara. The FDA or foreign regulatory agency may require Savara to conduct additional clinical studies, collect stability data and provide additional information concerning any new supplier, or change in a validated manufacturing process, including scaling-up production, before Savara could distribute products from that manufacturer or supplier or revised process. For example, if Savara were to engage a third party other than its current CMOs to supply the drug substance or drug product for future clinical trial, or commercial product, the FDA or regulatory authorities outside of the United States may require Savara to conduct additional clinical and nonclinical studies to ensure comparability of the drug substance or drug product manufactured by its current CMOs to that manufactured by the new supplier. Changing of suppliers or equipment is particularly challenging for companies like Savara, with inhalation products, because any change could alter the drug product of its performance. The manufacturing of the drug substance of Molgradex, molgramostim, a biological drug substance, as well as the drug product, Molgradex, is currently being transferred to a new manufacturing site. Producing a pharmaceutically and biologically similar product may prove to be challenging, and may take more time and resources that currently anticipated. The transfer of the manufacturing to the new site may also cause regulatory agencies, including the FDA, to require additional nonclinical or clinical studies, which may cause delay or failure to obtain regulatory approval, and incur substantial additional cost.

The manufacture of pharmaceutical products requires significant expertise and capital investment, including the development of advanced manufacturing techniques and process controls. Manufacturers of pharmaceutical products often encounter difficulties in production, particularly in scaling-up initial production. These problems include difficulties with production costs and yields, quality control, including stability of the product candidate and quality assurance testing, and shortages of qualified personnel. Some of Savara s product candidates have not been manufactured at the scale Savara believes will be necessary to maximize its commercial value and, accordingly, Savara may encounter difficulties in attempting to scale-up production and may not succeed in that effort on a timely basis or at all. In addition, the FDA or other regulatory authorities may impose additional requirements as Savara scales-up initial production capabilities, which may delay its scale-up activities and/or add expense.

If Savara s manufacturers encounter any of the aforementioned difficulties or otherwise fail to comply with their contractual obligations or there are delays entering commercial supply agreements due to capital constraints, Savara may have insufficient quantities of material to support ongoing and/or planned clinical studies or to meet commercial demand, if approved. In addition, any delay or interruption in the supply of materials necessary or useful to manufacture its product candidates could delay the completion of its clinical studies, increase the costs associated with its development programs and, depending upon the period of delay, require Savara to commence new clinical studies at significant additional expense or terminate the studies completely. Delays or interruptions in the supply of commercial product could result in increased cost of goods sold and lost sales. Savara cannot provide assurance that manufacturing or quality control problems will not arise in connection with the manufacture of its clinical trial material or commercial product, if approved, or that third-party manufacturers will be able to maintain the necessary governmental licenses and approvals to continue manufacturing such clinical trial material or commercial product, as applicable. In addition, AeroVanc and Molgradex are currently manufactured entirely or partially outside the United States and, as a result, Savara may experience interruptions in supply due to shipping or customs difficulties or regional instability. Furthermore, changes in currency fluctuations, shipping costs, or import tariffs could adversely affect cost of goods sold. Any of the above factors could cause Savara to delay or suspend anticipated or ongoing trials, regulatory submissions or commercialization of its product candidates, entail higher costs or result in Savara

being unable to effectively commercialize its products. Savara s dependence upon third parties for the manufacture of its clinical trial

material may adversely affect its future costs and its ability to develop and commercialize its product candidates on a timely and competitive basis.

Savara relies significantly on third parties to conduct its nonclinical testing and clinical studies and other aspects of its development programs and if those third parties do not satisfactorily perform their contractual obligations or meet anticipated deadlines, the development of its product candidates could be adversely affected.

Savara does not employ personnel or possess the facilities necessary to conduct many of the activities associated with its programs. Savara engages consultants, advisors, CROs, CMOs and others to assist in the design and conduct of nonclinical and clinical studies of its product candidates, with interpretation of the results of those studies and with regulatory activities, and Savara expects to continue to outsource all or a significant amount of such activities. As a result, many important aspects of its development programs are and will continue to be outside its direct control, and its third-party service providers may not perform their activities as required or expected including the maintenance of GCP, GLP and GMP compliance, which are ultimately Savara s responsibility to ensure. Further, such third parties may not be as committed to the success of Savara s programs as Savara s own employees and, therefore, may not devote the same time, thoughtfulness or creativity to completing projects or problem-solving as Savara s own employees would. To the extent Savara is unable to successfully manage the performance of third-party service providers, its business may be adversely affected.

The CROs that Savara engages to execute its clinical studies play a significant role in the conduct of the studies, including the collection and analysis of study data, and Savara likely will depend on CROs and clinical investigators to conduct future clinical studies and to assist in analyzing data from completed studies and developing regulatory strategies for its product candidates. Individuals working at the CROs with which it contracts, as well as investigators at the sites at which its studies are conducted, are not Savara s employees, and Savara has limited control over the amount or timing of resources that they devote to their programs. If Savara s CROs, study investigators, and/or third-party sponsors fail to devote sufficient time and resources to studies of its product candidates, if Savara and/or its CROs do not comply with all GLP and GCP regulatory and contractual requirements, or if their performance is substandard, it may delay commencement and/or completion of these studies, submission of applications for regulatory approval, regulatory approval, and commercialization of its product candidates. Failure of CROs to meet their obligations to Savara could adversely affect development of its product candidates.

In addition, CROs Savara engages may have relationships with other commercial entities, some of which may compete with Savara. Through intentional or unintentional means, Savara s competitors may benefit from lessons learned on the Savara project that could ultimately harm Savara s competitive position. Moreover, if a CRO fails to properly, or at all, perform its activities during a clinical study, Savara may not be able to enter into arrangements with alternative CROs on acceptable terms or in a timely manner, or at all. Switching CROs may increase costs and divert management time and attention. In addition, there likely would be a transition period before a new CRO commences work. These challenges could result in delays in the commencement or completion of Savara s clinical studies, which could materially impact its ability to meet its desired and/or announced development timelines and have a material adverse impact on its business and financial condition.

Savara currently has limited marketing capabilities and no sales organization. If Savara is unable to establish sales and marketing capabilities on its own or through third parties, it will be unable to successfully commercialize its products, if approved, or generate product revenue.

To commercialize Savara s products, if approved, in the United States and other jurisdictions it seeks to enter, Savara must build its marketing, sales, managerial and other non-technical capabilities or make arrangements with third parties to perform these services, and it may not be successful in doing so. If Savara s products receive regulatory

approval, it expects to market such products in the United States through a focused, specialized sales force, which will be costly and time consuming. Savara has no prior experience in the

marketing and sale of pharmaceutical products and there are significant risks involved in building and managing a sales organization, including its ability to hire, retain and incentivize qualified individuals, generate sufficient sales leads, provide adequate training to sales and marketing personnel and effectively manage a geographically dispersed sales and marketing team. Outside of the United States, Savara may consider collaboration arrangements. If Savara is unable to enter into such arrangements on acceptable terms or at all, it may not be able to successfully commercialize its products in certain markets. Any failure or delay in the development of its internal sales, marketing and distribution capabilities would adversely impact the commercialization of its products. If Savara is not successful in commercializing its products, either on its own or through collaborations with one or more third parties, its future product revenue will suffer and it would incur significant additional losses.

Savara is the process of integrating the systems, people and contracts from the recent acquisition of Serendex and the complete scope and impact of the integration is unknown.

Savara s acquisition of the assets of Serendex Pharmaceuticals A/S on July 15, 2016 has inherent risks, including risks associated with the integration of operations, systems and personnel. Savara has devoted its resources towards the successful integration of the companies, but there is potential exposure to unknown or contingent liabilities of the acquired company, the possible loss of key employees, liability associated with the assumption of legacy agreements, and many other such risks typical for such acquisitions.

To establish a sales and marketing infrastructure and expand its manufacturing capabilities, Savara will need to increase the size of its organization, and Savara may experience difficulties in managing this growth.

As of December 31, 2016, Savara had 15 full-time employees, including 10 employees engaged in research and development. As Savara advances its product candidates through the development process and to commercialization, it will need to continue to expand its development, regulatory, quality, managerial, sales and marketing, operational, finance and other resources to manage its operations and clinical trials, continue its development activities and commercialize its product candidates, if approved. As its operations expand, Savara expects that it will need to manage additional relationships with various manufacturers and collaborative partners, suppliers and other organizations.

Due to Savara s limited financial resources and its limited experience in managing a company with such anticipated growth, Savara may not be able to effectively manage the expansion of its operations or recruit and train additional qualified personnel. In addition, the physical expansion of its operations may lead to significant costs and may divert its management and resources. Any inability to manage growth could delay the execution of its development and strategic objectives, or disrupt its operations, which could materially impact its business, revenue and operating results.

Savara s product candidates may cause undesirable side effects or adverse events, or have other properties that could delay or prevent its clinical development, regulatory approval or commercialization.

Undesirable side effects or adverse events caused by Savara s product candidates could interrupt, delay or halt clinical studies and could result in the denial of regulatory approval by the FDA or other regulatory authorities for any or all indications, and in turn prevent Savara from commercializing its product candidates. A significant challenge in clinical development is that the patient population in early studies, where small numbers of patients are required, is different to the patient population observed in later stage studies, where larger groups of patients are required. For example, patients in earlier stage studies may be more sick, compliant, or otherwise motivated than patients in larger studies. As such, efficacy or safety results may differ significantly between studies. Side-effects seen at high doses in earlier studies of AeroVanc, such as bronchoconstriction or other airway irritation, may be seen in significant numbers

at the lower doses selected for later studies. Also, for AeroVanc, while not observed in the Phase 2 clinical study, the emergence of vancomycin-resistant MRSA could occur during the longer dosing period of AeroVanc that is currently planned for the Phase 3 clinical study. If this

or other undesirable side effects occur, they could possibly prevent approval, which would have a material and adverse effect on its business.

If any of its product candidates receive marketing approval and Savara or others later identify undesirable side effects caused by the product:

- regulatory authorities may require the addition of labeling statements, such as a black box warning or a contraindication;
- regulatory authorities may withdraw its approval of the product;
- Savara may be required to change the way the product is administered, conduct additional clinical studies or change the labeling of the product; and
- its reputation may suffer.

Any of these events could prevent Savara from achieving or maintaining market acceptance of the affected product or could substantially increase the costs and expenses of commercializing the product, which in turn could delay or prevent Savara from generating significant revenue from its sale.

Savara may not achieve its projected development goals in the time frames Savara has announced.

Savara has set goals for accomplishing certain objectives material to the successful development of its product candidates. The actual timing of these events may vary due to many factors, including delays or failures in its nonclinical testing, clinical studies and manufacturing and regulatory activities and the uncertainties inherent in the regulatory approval process. From time to time Savara creates estimates for the completion of enrollment of or announcement of data from clinical studies of its product candidates. However, predicting the rate of enrollment or the time from completion of enrollment to announcement of data for any clinical study requires Savara to make significant assumptions that may prove to be incorrect. As discussed in other risk factors above, its estimated enrollment rates and the actual rates may differ materially and the time required to complete enrollment of any clinical study may be considerably longer than Savara estimates. Such delays may adversely affect its financial condition and results of operations.

Even if Savara completes a clinical study with successful results, Savara may not achieve its projected development goals in the time frames Savara initially anticipates or announces. If a development plan for a product candidate becomes more extensive and costly than anticipated, Savara may determine that the associated time and cost are not financially justifiable and, as a result, may discontinue development in a particular indication or of the product candidate as a whole. In addition, even if a study did complete with successful results, changes may occur in regulatory requirements or policy during the period of product development and/or regulatory review of an NDA that relate to the data required to be included in NDAs which may require additional studies that may be costly and time consuming. Any of these actions may be viewed negatively, which could adversely impact its financial condition.

Further, throughout development, Savara must provide adequate assurance to the FDA and other regulatory authorities that Savara can consistently develop and produce its product candidates in conformance with GLP, GCP, cGMP, and

other regulatory standards. As discussed above, Savara relies on CMOs for the manufacture of clinical, and future commercial, quantities of its product candidates. If future FDA or other regulatory authority inspections identify cGMP compliance deficiencies at these third-party facilities, production of its clinical trial material or, in the future, commercial product, could be disrupted, causing potentially substantial delay in or failure of development or commercialization of its product candidates.

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Savara s employees, independent contractors and consultants, principal investigators, CROs, CMOs and other vendors, and any future commercial partners may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements, which could cause significant liability for Savara and harm its reputation.

Savara is exposed to the risk that its employees, independent contractors and consultants, principal investigators, CROs, CMOs and other vendors, and any future commercial partners may engage in fraudulent conduct or other misconduct, including intentional failures to comply with FDA regulations or similar regulations of comparable foreign regulatory authorities, to provide accurate information to the FDA or comparable foreign regulatory authorities, to comply with manufacturing standards required by cGMP or Savara standards, to comply with federal and state healthcare fraud and abuse laws and regulations and similar laws and regulations established and enforced by comparable foreign regulatory authorities, and to report financial information or data accurately or disclose unauthorized activities to them. The misconduct of its employees and other Savara service providers could involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to its reputation. Savara intends to adopt a code of business ethics and conduct, but it is not always possible to identify and deter such misconduct, and the precautions Savara takes to detect and prevent this activity, such as the implementation of a quality system which entails vendor audits by quality experts, may not be effective in controlling unknown or unmanaged risks or losses or in protecting Savara from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against them, and Savara is not successful in defending itself or asserting its rights, those actions could have a significant impact on its business and results of operations, including the imposition of significant fines or other sanctions. For example, if one of its manufacturing partners was placed under a consent decree, Savara may be hampered in its ability to manufacture clinical or commercial supplies.

Savara s business and operations would suffer in the event of third-party computer system failures, cyber-attacks on third-party systems or deficiency in its cyber security.

Savara relies on information technology systems, including third-party cloud based service providers, to keep financial records, maintain laboratory, clinical data and corporate records, communicate with staff and external parties and operate other critical functions. This includes critical systems such as email, other communication tools, electronic document repositories, and archives. If any of these third-party information technology (IT) providers are compromised due to computer viruses, unauthorized access, malware, natural disasters, fire, terrorism, war and telecommunication failures, electrical failures, cyber-attacks or cyber-intrusions over the internet, then sensitive emails or documents could be exposed or deleted. Similarly, Savara could incur business disruption if its access to the internet is compromised and Savara is unable to connect with third-party IT providers. The risk of a security breach or disruption, particularly through cyber-attacks or cyber intrusion, including by computer hackers, foreign governments, and cyber terrorists, has generally increased as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased. In addition, Savara relies on those third parties to safeguard important confidential personal data regarding its employees and patients enrolled in its clinical trials. If a disruption event were to occur and cause interruptions in a third-party IT provider s operations, it could result in a disruption of its drug development programs. For example, the loss of clinical trial data from completed, ongoing or planned clinical trials could result in delays in its regulatory approval efforts and significantly increase its costs to recover or reproduce the data. To the extent that any disruption or security breach results in a loss of or damage to its data or applications, or inappropriate disclosure of confidential or proprietary information, Savara could incur liability and development of its product candidates could be delayed, or could fail.

Savara s operations might be interrupted by the occurrence of a natural disaster or other catastrophic event.

Savara s corporate headquarters is located in a single commercial facility in Austin, Texas, USA. Savara maintains a second office in a single commercial facility in Denmark where many of Savara s product

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development staff are located. Important documents and records, including copies of its regulatory documents and other records for its product candidates, are located both at a secure offsite document storage facility as well at its own facilities and Savara depends on its facilities for the continued operation of its business. Natural disasters and other catastrophic events, such as wildfires and other fires, earthquakes and extended power interruptions and terrorist attacks or severe weather conditions, could significantly disrupt its operations and result in additional, unplanned expense. As a small company with limited resources, Savara has not prepared or implemented a formal business continuity or disaster recovery plan and any natural disaster or catastrophic event could disrupt its business operations and result in setbacks to its development programs. Even though Savara believes it carries commercially reasonable insurance, Savara might suffer losses that are not covered by or exceed the coverage available under these insurance policies.

Risks Related to Drug Development and Commercialization

Savara depends on the successful completion of clinical studies of its product candidates, and any positive results in prior clinical studies do not ensure that ongoing or future clinical studies will be successful.

Pharmaceutical products are subject to stringent regulatory requirements covering quality, safety, and efficacy. The burden of proof is on the manufacturer, such as Savara, to show with substantial clinical data that the risk/benefit profile for any new drug is favorable. Only after successfully completing extensive pharmaceutical development, nonclinical testing, and clinical studies may a product be considered for regulatory approval.

Clinical studies are expensive, difficult to design and implement, they can take many years to complete, and outcomes are inherently uncertain. A drug product may fail to demonstrate positive results at any stage of testing despite having progressed satisfactorily through nonclinical testing and initial clinical studies. There is significant risk in clinical development where later stage clinical studies are designed and powered based on the analysis of data from earlier studies, with these earlier studies involving a smaller number of patients, and the results of the earlier studies being driven primarily by a subset of responsive patients. In addition, interim results of a clinical study do not necessarily predict final results. Further, clinical study data frequently are susceptible to varying interpretations. Medical professionals and/or regulatory authorities may analyze or weigh study data differently than the sponsor company, resulting in delay or failure to obtain marketing approval for a product candidate. Additionally, the possible lack of standardization across multiple investigative sites may induce variability in the results which can interfere with the evaluation of treatment effects.

If Savara licenses rights to develop its product candidates to independent third parties or otherwise permit such third parties to evaluate its product candidates in clinical studies, Savara may have limited control over those clinical studies. Any safety or efficacy concern identified in a third-party sponsored study could adversely affect its or another licensee s development of its product candidate and prospects for its regulatory approval, even if the data from that study are subject to varying interpretations and analyses.

There is significant risk that ongoing and future clinical studies of its product candidates are unsuccessful. Negative or inconclusive results could cause the FDA and other regulatory authorities to require Savara to repeat or conduct additional clinical studies, which could significantly increase the time and expense associated with development of that product candidate or cause Savara to elect to discontinue one or more clinical programs. Failure to complete a clinical study of a product candidate or an unsuccessful result of a clinical study could have a material adverse effect on its business.

Both of Savara s product candidates have received Orphan Drug Designation by the Food and Drug Administration (FDA) and Molgradex has received Orphan Drug Designation also in Europe. While orphan

designation provides certain benefits there are also associated risks.

AeroVanc has been granted Orphan Drug Designation in the United States by the FDA for the treatment of persistent methicillin-resistant *Staphylococcus aureus* (MRSA) lung infection in patients with cystic fibrosis and

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Molgradex has received Orphan Drug Designation in the United States by the FDA and in Europe by the European Medicines Agency for the treatment of pulmonary alveolar proteinosis (PAP). Orphan Designation will not shorten the regulatory review or reduce the clinical data requirements needed to obtain approval. If approval is received to market either AeroVanc or Molgradex for the respective indications, FDA will not approve a similar product, with the same active ingredient, to AeroVanc or Molgradex for seven years and the European Medicines Agency will not approve a similar product to Molgradex for ten years, unless Savara is unable to produce enough supply to meet demand in the marketplace or another similar product, with the same active ingredient, is deemed clinically superior. Similar product candidates, with the same active ingredient and route of delivery, may be granted Orphan Drug Designation during the development of the respective products, but the Orphan Drug exclusivity is granted only to the first of such products approved, which means there is risk that a competitor product candidate may receive approval and Orphan Drug exclusivity before Savara, thus preventing Savara from marketing one or more of its product candidates until the exclusivity of the competing product expires. Also, the Orphan Drug status will not prevent a competitor with a different active ingredient from competing with Savara s product candidates. If Savara is prevented from marketing one or more product candidates due to a competitor s Orphan Drug exclusivity, this would have a material adverse effect on its business.

Delays in commencement and completion of clinical studies are common and have many causes. Delays in clinical studies of Savara s product candidates could increase overall development costs and jeopardize its ability to obtain regulatory approval and successfully commercialize any approved products.

Clinical testing typically is expensive, can take many years to complete, and its outcome is inherently uncertain. Clinical studies may not commence on time or be completed on schedule, if at all. The commencement and completion of clinical studies can be delayed for a variety of reasons, including:

- inability to raise sufficient funding to initiate or continue a clinical study;
- delays in obtaining regulatory approval to commence a clinical study;
- delays in identifying and reaching agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical study sites and investigators, which agreements can be subject to extensive negotiation and may vary significantly among study sites;
- delays in obtaining regulatory approval in a prospective country;
- delays in obtaining ethic committee approval to conduct a clinical study at a prospective site;
- delays in reaching agreements on acceptable terms with prospective contract manufacturing organizations, or CMOs, or other vendors for the production and supply of clinical trial material and, if necessary, drug administration devices, which agreements can be subject to extensive negotiation;

delays in the production or delivery of sufficient quantities of clinical trial material or drug delivery devices from its CMOs and other vendors to initiate or continue a clinical study;

delays due to product candidate recalls as result of stability failure, excessive product complaints or other failures of the product candidate during its use or testing;

invalidation of clinical data caused by premature unblinding or integrity issues;

invalidation of clinical data caused by mixing up of the active drug and placebo through randomization or manufacturing errors;

delays on the part of its CROs, CMOs, and other third-party contractors in developing procedures and protocols or otherwise conducting activities in accordance with applicable policies and procedures and in accordance with agreed upon timelines;

delays in identifying and hiring or engaging, as applicable, additional employees or consultants to assist in managing clinical study-related activities;

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- delays in recruiting and enrolling individuals to participate in a clinical study, which historically can be challenging in orphan diseases;

- delays caused by patients dropping out of a clinical study due to side effects, concurrent disorders, difficulties in adhering to the study protocol, unknown issues related to different patient profiles than in previous studies, such as the reduced age limit required for inclusion into the planned AeroVanc Phase 3 study, or otherwise;

- delays in having patients complete participation in a clinical study, including returning for post-treatment follow-up;

- delays resulting from study sites dropping out of a trial, providing inadequate staff support for the study, problems with shipment of study supplies to clinical sites or focusing its staff s efforts on enrolling studies that compete for the same patient population;

- suspension of enrollment at a study site or the imposition of a clinical hold by the FDA or other regulatory authority following an inspection of clinical study operations at study sites or finding of a drug-related serious adverse event; and

- delays in quality control/quality assurance procedures necessary for study database lock and analysis of unblinded data.

Patient enrollment, a critical component to successful completion of a clinical study, is affected by many factors, including the size and nature of the study population, the proximity of patients to clinical sites, the eligibility criteria for the study, the design of the clinical study, ongoing studies competing for the same patient population and clinicians , patients perceptions as to the potential advantages of the drug being studied in relation to available alternatives, including therapies being investigated by other companies which may be viewed as more beneficial or important to study, fear of being randomized to the placebo arm, and changes in standard of care. Challenges to complete enrollment can be exacerbated in orphan indications, like those being pursued by Savara, with a limited number of qualifying patients and the lack of clinical sites with the necessary expertise and experience to conduct Savara s studies. Further, completion of a clinical study and/or its results may be adversely affected by failure to retain patients who enroll in a study but withdraw due to adverse side effects, perceived lack of efficacy, belief that they are on placebo, improvement in condition before treatment has been completed, or for personal reasons, or without reason, or by patients who fail to return for or complete post-treatment follow-up.

Clinical studies may not begin on time or be completed in the time frames Savara anticipates and may be costlier than Savara anticipates for a variety of reasons, including one or more of those described above. The length of time necessary to successfully complete clinical studies varies significantly and is difficult to predict accurately. Savara may make statements regarding anticipated timing for completion of enrollment in and/or availability of results from its clinical studies, but such predictions are subject to a number of significant assumptions and actual timing may differ materially for a variety of reasons, including patient enrollment rates, length of time needed to prepare raw study data for analysis and then to review and analyze it, and other factors described above. If Savara experiences delays in the completion of a clinical study, if a clinical study is terminated, or if failure to conduct a study in accordance with regulatory requirements or the study s protocol leads to deficient safety and/or efficacy data, the

regulatory approval and/or commercial prospects for its product candidates may be harmed and its ability to generate product revenue will be delayed. In addition, any delays in completing its clinical studies likely will increase its development costs. Further, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical studies may ultimately lead to the denial of regulatory approval of a product candidate. Even if Savara ultimately commercializes its product candidates, the standard of care may have changed or other therapies for the same indications may have been introduced to the market in the interim and may establish a competitive threat to Savara or diminish the need for Savara s products.

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Clinical studies are very expensive, difficult to design and implement, often take many years to complete, and the outcome is inherently uncertain.

Clinical development of pharmaceutical products for humans is generally very expensive, takes many years to complete and failures can occur at any stage of clinical testing. Savara estimates that clinical development of its product candidates will take several additional years to complete, but because of the variety of factors that can affect the design, timing and outcome of clinical studies, Savara is unable to estimate the exact funds required to complete research and development, obtain regulatory approval and commercialize all of its product candidates. Savara will need significant additional capital to continue to advance its products as per current business plans.

Failure at any stage of clinical testing is not uncommon and Savara may encounter problems that would require additional, unplanned studies or cause Savara to abandon a clinical development program.

In addition, a clinical study may be suspended or terminated by Savara, an IRB, a data safety monitoring board, the FDA or other regulatory authorities due to a number of factors, including:

- lack of adequate funding to continue the study;
- failure to conduct the study in accordance with regulatory requirements or the study s protocol;
- inspection of clinical study operations or sites by the FDA or other regulatory authorities resulting in the imposition of a clinical hold;
- unforeseen safety issues, including adverse side effects; or
- changes in governmental regulations or administrative actions.

Changes in governmental regulations and guidance relating to clinical studies may occur and Savara may need to amend study protocols to reflect these changes, or Savara may amend study protocols for other reasons. Amendments may require Savara to resubmit protocols to IRBs for reexamination and approval or renegotiate terms with CROs, study sites and investigators, all of which may adversely impact the costs or timing of or its ability to successfully complete a trial.

There is significant uncertainty regarding the regulatory approval process for any investigational new drug, substantial further testing and validation of its product candidates and related manufacturing processes may be required, and regulatory approval may be conditioned, delayed or denied, any of which could delay or prevent Savara from successfully marketing its product candidates and substantially harm its business.

Pharmaceutical products generally are subject to rigorous nonclinical testing and clinical studies and other approval procedures mandated by the FDA and foreign regulatory authorities. Various federal and foreign statutes and regulations also govern or materially influence the manufacturing, safety, labeling, storage, record keeping and marketing of pharmaceutical products. The process of obtaining these approvals and the subsequent compliance with appropriate U.S. and foreign statutes and regulations is time-consuming and requires the expenditure of substantial

resources.

Savara is preparing AeroVanc for a Phase 3 trial, the success of which will be needed for FDA approval to market AeroVanc in the United States to treat persistent MRSA lung infection in cystic fibrosis patients. While significant communication with the FDA on the Phase 3 study design has occurred, even if the Phase 3 clinical study meets all of its statistical goals and protocol end points, the FDA may not view the results as robust and convincing. They may require additional clinical studies and/or other costly studies, which could require Savara to expend substantial additional resources and could significantly extend the timeline for clinical development prior to market approval. Additionally, Savara is required by the FDA to conduct a two-year nonclinical carcinogenicity study on the AeroVanc powder. The results of this study will not be known until a short time prior to potential submission of an NDA for AeroVanc. If the carcinogenicity study cannot be completed for technical or other reasons, or provides results that the FDA determine to be concerning, this may cause a delay or failure in obtaining approval for AeroVanc.

Molgradex is currently undergoing a Phase 2/3 clinical study in Europe and Japan. Concurrently, Savara plans to make formulation changes to Molgradex that would simplify the composition of the drug product and eliminate potentially harmful excipients. While this change is expected by Savara to reduce studies and/or other documentation requirements, the regulatory agencies may require additional clinical or nonclinical studies prior to approval, even if current clinical studies are deemed successful, which could require Savara to expend substantial additional resources and significantly extend the timeline for clinical development of Molgradex in PAP.

Savara is currently undergoing active discussion with the FDA on the requirements for obtaining IND approval to initiate clinical studies in the United States and achieve NDA approval for Molgradex. However, no agreement has yet been reached on the design of the clinical program required for the submission of an NDA, and there is risk that reaching agreement may take longer than currently planned, or the FDA may require such studies that Savara deems unfeasible, preventing Savara to reach agreement with the FDA, which may result in delay or failure to complete the development of Molgradex in the US.

Significant uncertainty exists with respect to the regulatory approval process for any investigational new drug, including AeroVanc and Molgradex. Regardless of any guidance the FDA or foreign regulatory agencies may provide a drug s sponsor during its development, the FDA or foreign regulatory agencies retains complete discretion in deciding whether to accept an NDA or the equivalent foreign regulatory approval submission for filing or, if accepted, approve an NDA. There are many components to an NDA or marketing authorization application submission in addition to clinical study data. For example, the FDA or foreign regulatory agencies will review the sponsor s internal systems and processes, as well as those of its CROs, CMOs and other vendors, related to development of its product candidates, including those pertaining to its clinical studies and manufacturing processes. Before accepting an NDA for review or before approving the NDA, the FDA or foreign regulatory agencies may request that Savara provide additional information that may require significant resources and time to generate and there is no guarantee that its product candidates will be approved for any indication for which Savara may apply. The FDA or foreign regulatory agencies may choose not to approve an NDA for any of a variety of reasons, including a decision related to the safety or efficacy data, manufacturing controls or systems, or for any other issues that the agency may identify related to the development of its product candidates. Even if one or more Phase 3 clinical studies are successful in providing statistically significant evidence of the efficacy and safety of the investigational drug, the FDA or foreign regulatory agencies may not consider efficacy and safety data from the submitted studies adequate scientific support for a conclusion of effectiveness and/or safety and may require one or more additional Phase 3 or other studies prior to granting marketing approval. If this were to occur, the overall development cost for the product candidate would be substantially greater and its competitors may bring products to market before Savara, which could impair its ability to generate revenues from the product candidates, or even seek approval, if blocked by a competitor s Orphan Drug exclusivity, which would have a material adverse effect on Savara s business, financial condition and results of operations.

Further, development of Savara s product candidates and/or regulatory approval may be delayed for reasons beyond its control. For example, U.S. federal government shut-down or budget sequestration, such as one that occurred during 2013, may result in significant reductions to the FDA s budget, employees and operations, which may lead to slower response times and longer review periods, potentially affecting Savara s ability to progress development of its product candidates or obtain regulatory approval for its product candidates.

Even if the FDA or foreign regulatory agencies grant approvals for Savara s product candidates, the conditions or scope of the approval(s) may limit successful commercialization of the product candidates and impair Savara s ability to generate substantial sales revenue. For example, the FDA may approve label claims for AeroVanc with age restrictions and/or treatment duration limitations, or Molgradex with restrictions for use only by patients unresponsive to the current standard of care. They may limit the label of AeroVanc or Molgradex to a subset of patients based on a

review of which patient groups had the greatest efficacious response in clinical studies. Such label restriction may be undesirable and may limit successful commercialization. The FDA or foreign regulatory agencies may also only grant marketing approval contingent on the performance of costly

post-approval nonclinical or clinical studies, or subject to warnings or contraindications that limit commercialization. Additionally, even after granting approval, the manufacturing processes, labeling, packaging, distribution, adverse event reporting, storage, advertising, promotion and recordkeeping for its products will be subject to extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, registration, and continued compliance with current good manufacturing processes, or cGMP, good clinical practices, international conference on harmonization regulations and good laboratory practices, which are regulations and guidelines that are enforced by the FDA or foreign regulatory agencies for all of its clinical development and for any clinical studies that Savara conducts post-approval. The FDA or foreign regulatory agencies may decide to withdraw approval, add warnings or narrow the approved indications in the product label, or establish risk management programs that could restrict distribution of its products. These actions could result from, among other things, safety concerns, including unexpected side effects or drug-drug interaction problems, or concerns over misuse of a product. If any of these actions were to occur following approval, Savara may have to discontinue commercialization of the product, limit its sales and marketing efforts, implement risk minimization procedures, and/or conduct post-approval studies, which in turn could result in significant expense and delay or limit its ability to generate sales revenues.

Regulations may be changed prior to submission of an NDA that require higher hurdles than currently anticipated. These may occur as a result of drug scandals, recalls, or a political environment unrelated to Savara s products.

Even if Savara receives regulatory approval for a product candidate, Savara may face regulatory difficulties that could materially and adversely affect its business, financial condition and results of operations.

Even if initial regulatory approval is obtained, as a condition to the initial approval the FDA or a foreign regulatory agency may impose significant restrictions on a product s indicated uses or marketing or impose ongoing requirements for potentially costly post-approval studies or marketing surveillance programs, any of which would limit the commercial potential of the product. Its product candidates also will be subject to ongoing FDA requirements related to the manufacturing processes, labeling, packaging, storage, distribution, advertising, promotion, record-keeping and submission of safety and other post-market information regarding the product. For instance, the FDA may require changes to approved drug labels, require post-approval clinical studies and impose distribution and use restrictions on certain drug products. In addition, approved products, manufacturers and manufacturers facilities are subject to continuing regulatory review and periodic inspections. If previously unknown problems with a product are discovered, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, the FDA may impose restrictions on that product or Savara, including requiring withdrawal of the product from the market. If Savara or a CMO of Savara s fail to comply with applicable regulatory requirements, a regulatory agency may:

- issue warning letters or untitled letters;
- impose civil or criminal penalties;
- suspend or withdraw regulatory approval;
- suspend or terminate any ongoing clinical studies;

refuse to approve pending applications or supplements to approved applications;

exclude its product from reimbursement under government healthcare programs, including Medicaid or Medicare;

impose restrictions or affirmative obligations on Savara s or its CMO s operations, including costly new manufacturing requirements;

close the facilities of a CMO; or

seize or detain products or require a product recall.

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If any of Savara s product candidates for which Savara receive regulatory approval fails to achieve significant market acceptance among the medical community, patients or third-party payers, the revenue Savara generates from its sales will be limited and its business may not be profitable.

Savara s success will depend in substantial part on the extent to which its product candidates, if approved, are accepted by the medical community and patients and reimbursed by third-party payers, including government payers. The degree of market acceptance with respect to each of its approved products, if any, will depend upon a number of factors, including:

- the safety and efficacy of its products as demonstrated in clinical studies;
- acceptance in the medical and patient communities of its products as a safe and effective treatment;
- the product s taste, ease of use, or features associated with the delivery device;
- the perceived advantages of its product over alternative treatments, including with respect to the incidence and severity of any adverse side effects and the cost of treatment;
- the indications for which its product is approved;
- claims or other information (including limitations or warnings) in its product s approved labeling;
- reimbursement and coverage policies of government and other third-party payers;
- pricing and cost-effectiveness of its product relative to alternative treatments;
- availability of alternative treatments;
- smaller than expected market size due to lack of disease awareness of a rare disease, or the patient population with a specific rare disease being smaller than anticipated;
- inappropriate diagnostic efforts due to limited knowledge and/or resources among clinicians;
- the prevalence of off-label substitution of chemically equivalent products or alternative treatments; and

the resources Savara devotes to marketing its product and restrictions on promotional claims Savara can make with respect to the product.

Savara cannot predict with reasonable accuracy whether physicians, patients, healthcare insurers or health maintenance organizations, or the medical community in general, will accept or utilize any of its products, if approved. If its product candidates are approved but do not achieve an adequate level of acceptance by these parties, Savara may not generate sufficient revenue to become or remain profitable. In addition, its efforts to educate the medical community and third-party payers regarding benefits of its products may require significant resources and may never be successful.

If Savara determines that a product candidate may not achieve adequate market acceptance or that the potential market size does not justify additional expenditure on the program, Savara may reduce its expenditures on the development and/or the process of seeking regulatory approval of the product candidate while Savara evaluates whether and on what timeline to move the program forward.

Even if Savara receives regulatory approval to market one or more of its product candidates in the United States, Savara may never receive approval or commercialize its products outside of the United States, which would limit its ability to realize the full commercial potential of its product candidates.

In order to market products outside of the United States, Savara must establish and comply with the numerous and varying regulatory requirements of other countries regarding safety and efficacy. Approval procedures vary among countries and can involve additional product testing and validation and additional administrative review periods. The time required to obtain approval in other countries generally differs from that required to obtain FDA approval. The regulatory approval process in other countries may include all of the risks

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detailed above regarding FDA approval in the United States, as well as other risks. Regulatory approval in one country does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country may have a negative effect on the regulatory process in others. Failure to obtain regulatory approval in other countries or any delay or setback in obtaining such approval could have the same adverse effects detailed above regarding FDA approval in the United States. As described above, such effects include the risks that its product candidates may not be approved for all indications requested, which could limit the uses of its product candidates and have an adverse effect on product sales, and that such approval may be subject to limitations on the indicated uses for which the product may be marketed or require costly, post-marketing follow-up studies.

Conversely, if the product candidates do receive approval outside the US in the future, Savara may not meet the FDA requirements in the United States for approval. For example, Molgradex is currently being studied in Europe and Japan in what could be a pivotal study for use of Molgradex to treat PAP. However, in the United States, Savara does not yet have approval from the FDA to start clinical studies with Molgradex due to different requirements by the FDA, which have not yet been met or agreed upon.

Savara must comply with the U.S. Foreign Corrupt Practices Act and similar foreign anti-corruption laws.

The U.S. Foreign Corrupt Practices Act, to which Savara is subject, prohibits corporations and individuals from engaging in certain activities to obtain or retain business or to influence a person working in an official capacity. It is illegal to pay, offer to pay or authorize the payment of anything of value to any foreign government official, government staff member, political party or political candidate in an attempt to obtain or retain business or to otherwise influence a person working in an official capacity. Other countries, such as the U.K., have similar laws with which Savara must comply. Savara faces the risk that an employee or agent could be accused of violating one or more of these laws, particularly in geographies where significant overlap exists between local government and healthcare industries. Such an accusation, even if unwarranted, could prove disruptive to Savara s developmental and commercialization efforts.

Risks Related to Savara s Intellectual Property

Savara s success will depend in part on obtaining and maintaining effective patent and other intellectual property protection for its product candidates and proprietary technology.

AeroVanc has received a U.S. Patent Notice of Allowance for its formulation in the United States, AeroVanc s primary market. AeroVanc has either been issued patents or is prosecuting patent applications in numerous countries outside the United States. Savara has no patent protection for Molgradex for the treatment of PAP, and primarily relies on the Orphan Drug exclusivity as its primary barrier to competition. Both AeroVanc and Molgradex utilize proprietary delivery devices with exclusive supply agreements. Molgradex is eligible for protection via a proprietary cell bank used in the production of the drug substance. However, Savara s success will depend in part on its ability to:

- obtain and maintain patent and other exclusivity with respect to Savara s products and its uses;
- prevent third parties from infringing upon its proprietary rights;
- maintain proprietary know-how and trade secrets;

operate without infringing upon the patents and proprietary rights of others; and

obtain appropriate licenses to patents or proprietary rights held by third parties if infringement would otherwise occur or if necessary to secure exclusive rights to them, both in the United States and in foreign countries.

The patent and intellectual property positions of biopharmaceutical companies generally are highly uncertain, involve complex legal and factual questions, and have been and continue to be the subject of much litigation. There is no guarantee that Savara has or will develop or obtain the rights to products or processes that

are patentable, that patents will issue from any pending applications or that claims allowed will be sufficient to protect the technology Savara develops or have developed or that is used by Savara, its CMOs or its other service providers. In addition, any patents that are issued to Savara may be limited in scope or challenged, invalidated, infringed or circumvented, including by its competitors, and rights Savara have under issued patents may not provide competitive advantages to Savara. If competitors can develop and commercialize technology and products similar to Savara s, its ability to successfully commercialize its technology and products may be impaired.

Patent applications in the United States are confidential for a period of time until they are published, and publication of discoveries in scientific or patent literature typically lags actual discoveries by several months. As a result, Savara cannot be certain that the inventors listed in any patent or patent application owned by Savara were the first to conceive of the inventions covered by such patents and patent applications (for U.S. patent applications filed before March 16, 2013), or that such inventors were the first to file patent applications for such inventions outside the United States and, after March 15, 2013, in the United States. In addition, changes in or different interpretations of patent laws in the United States and foreign countries may affect Savara s patent rights and limit the number of patents Savara can obtain, which could permit others to use its discoveries or to develop and commercialize Savara s technology and products without any compensation to Savara.

Savara s AeroVanc patent is specific to the formulation of the AeroVanc powder. While this may prevent identical products from entering the market, it may not preclude someone skilled in the art from inventing an alternate formulation approach with comparable or improved characteristics.

Savara also relies on unpatented know-how and trade secrets and continuing technological innovation to develop and maintain its competitive position, which Savara seeks to protect, in part, through confidentiality agreements with employees, consultants, collaborators and others. Savara also has invention or patent assignment agreements with its employees and certain consultants. The steps Savara have taken to protect its proprietary rights, however, may not be adequate to preclude misappropriation of or otherwise protect its proprietary information or prevent infringement of its intellectual property rights, and Savara may not have adequate remedies for any such misappropriation or infringement. In addition, it is possible that inventions relevant to Savara s business could be developed by a person not bound by an invention assignment agreement with Savara or independently discovered by a competitor.

Savara also intends to rely on regulatory exclusivity for protection of its product candidates, if approved for commercial sale. Implementation and enforcement of regulatory exclusivity, which may consist of regulatory data protection and market protection, varies widely from country to country. Failure to qualify for regulatory exclusivity, or failure to obtain or maintain the extent or duration of such protections that Savara expects for its product candidates, if approved, could affect its decision on whether to market the products in a particular country or countries or could otherwise have an adverse impact on its revenue or results of operations. For Molgradex, which is administered via nebulization, Savara may rely on regulatory exclusivity for the combination of Molgradex and its delivery system. However, there is no assurance that its Molgradex product and its delivery system, if approved, will benefit from this type of market protection.

Savara may rely on trademarks, trade names and brand names to distinguish its products, if approved for commercial sale, from the products of its competitors. Savara intends to seek approval for new names for AeroVanc and Molgradex that meet the FDA s and foreign regulatory requirements. However, Savara s trademark applications may not be approved. Third parties may also oppose Savara s trademark applications or otherwise challenge its use of the trademarks in which case Savara may expend substantial resources to defend its proposed or approved trademarks and may enter into agreements with third parties that may limit Savara s use of its trademarks. In the event that Savara s trademarks are successfully challenged, Savara could be forced to rebrand its product, which could result in loss of brand recognition and could require Savara to devote significant resources to advertising and marketing these new

brands. For example, Savara filed a trademark for the name Savara and was challenged. Savara decided to terminate its application, which it may revisit such filings at a

future date. Further, Savara s competitors may infringe its trademarks or Savara may not have adequate resources to enforce its trademarks.

Savara s success depends on its ability to prevent competitors from duplicating or developing and commercializing equivalent versions of its product candidates, but patent protection may be difficult to obtain and any issued claims may be limited.

Savara has filed for patent protection in the United States and other countries to cover the formulation of AeroVanc and was granted a notice of allowance in the United States, its primary market. However, this patent may not provide Savara with significant competitive advantages, because the validity or enforceability of the patents may be challenged and, if instituted, one or more of the challenges may be successful. Patents may be challenged in the United States under post-grant review proceedings, *inter partes* reexamination, *ex parte* re-examination, or challenges in district court. Any patents issued in foreign jurisdictions may be subjected to comparable proceedings lodged in various foreign patent offices, or courts. These proceedings could result in either loss of the patent or loss or reduction in the scope of one or more of the claims of the patent. Even if a patent issues, and is held valid and enforceable, competitors may be able to design around Savara s patents, such as by using pre-existing or newly developed technology, in which case competitors may not infringe Savara s issued claims and may be able to market and sell products that compete directly with Savara s before and after its patents expire.

The patent prosecution process is expensive and time-consuming. Savara and any future licensors and licensees may not apply for or prosecute patents on certain aspects of its product candidates at a reasonable cost, in a timely fashion, or at all. Savara may not have the right to control the preparation, filing and prosecution of some patent applications related to its product candidates or technologies. As a result, these patents and patent applications may not be prosecuted and enforced in a manner consistent with the best interests of Savara. It is also possible that Savara or any future licensors or licensees will fail to identify patentable aspects of inventions made in the course of development and commercialization activities before it is too late to obtain patent protection on them. Further, it is possible that defects of form in the preparation or filing of Savara s patent applications may exist, or may arise in the future, such as with respect to proper priority claims, inventorship, assignment, or claim scope. If there are material defects in the form or preparation of its patents or patent applications, such patents or applications may be invalid or unenforceable. In addition, one or more parties may independently develop similar technologies or methods, duplicate its technologies or methods, or design around the patented aspects of its products, technologies or methods. Any of these circumstances could impair Savara s ability to protect its products, if approved, in ways which may have an adverse impact on Savara s business, financial condition and operating results.

Furthermore, the issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and Savara s owned and licensed patents may be challenged in the courts or patent offices in and outside of the United States. Such challenges may result in loss of exclusivity or freedom to operate or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit Savara s ability use its patents to stop others from using or commercializing similar or identical products or technology, or limit the duration of the patent protection of its technology and drugs. Given the amount of time required for the development, testing and regulatory review of new drug candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, Savara s owned and licensed patent portfolio may not provide Savara with sufficient rights to exclude others from commercializing drugs similar or identical to those of Savara once Orphan Drug and Qualified Infectious Disease Product exclusivities have expired. See the section entitled Risks Related to Savara s Industry for further description of Orphan Drug and Qualified Infectious Disease Product exclusivities.

Enforcement of intellectual property rights in certain countries outside the United States, including China in particular, has been limited or non-existent. Future enforcement of patents and proprietary rights in many other countries will

likely be problematic or unpredictable. Moreover, the issuance of a patent in one country does not

assure the issuance of a similar patent in another country. Claim interpretation and infringement laws vary by nation, so the extent of any patent protection is uncertain and may vary in different jurisdictions.

Obtaining and maintaining patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and Savara s patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and applications are required to be paid to the United States Patent and Trademark Office, or USPTO, and various governmental patent agencies outside of the United States in several stages over the lifetime of the patents and applications. The USPTO and various non-U.S. governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process and after a patent has issued. There are situations in which non-compliance can result in decreased patent term adjustment or in abandonment or lapse of the patent or patent application, leading to partial or complete loss of patent rights in the relevant jurisdiction.

Third parties may claim that Savara s products, if approved, infringe on their proprietary rights and may challenge the approved use or uses of a product or its patent rights through litigation or administrative proceedings, and defending such actions may be costly and time consuming, divert management attention away from Savara s business, and result in an unfavorable outcome that could have an adverse effect on Savara s business.

Savara s commercial success depends on its ability and the ability of its CMOs and component suppliers to develop, manufacture, market and sell its products and product candidates and use its proprietary technologies without infringing the proprietary rights of third parties. Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which Savara is or may be developing products. Because patent applications can take many years to publish and issue, there currently may be pending applications, unknown to Savara, that may later result in issued patents that its products, product candidates or technologies infringe, or that the process of manufacturing its products or any of its respective component materials, or the component materials themselves, infringe, or that the use of its products, product candidates or technologies infringe.

Savara or its CMOs or component material suppliers may be exposed to, or threatened with, litigation by third parties alleging that Savara s products, product candidates and/or technologies infringe its patents and/or other intellectual property rights, or that one or more of the processes for manufacturing its products or any of its respective component materials, or the component materials themselves, or the use of its products, product candidates or technologies, infringe its patents and/or other intellectual property rights. If a third-party patent or other intellectual property right is found to cover its products, product candidates, technologies or its uses, or any of the underlying manufacturing processes or components, Savara could be required to pay damages and could be unable to commercialize its products or use its technologies or methods unless Savara is able to obtain a license to the patent or intellectual property right. A license may not be available to Savara in a timely manner or on acceptable terms, or at all. In addition, during litigation, the third-party alleging infringement could obtain a preliminary injunction or other equitable remedy that could prohibit Savara from making, using, selling or importing its products, technologies or methods.

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There generally is a substantial amount of litigation involving patent and other intellectual property rights in the industries in which Savara operates and the cost of such litigation may be considerable. Savara can provide no assurance that its product candidates or technologies will not infringe patents or rights owned by others, licenses to which might not be available to Savara in a timely manner or on acceptable terms, or at all. If a third party claims that Savara or its CMOs or component material suppliers infringe its intellectual property rights, Savara may face a number of issues, including, but not limited to:

- infringement and other intellectual property claims which, with or without merit, may be expensive and time consuming to litigate and may divert management s time and attention from Savara s core business;
- substantial damages for infringement, including the potential for treble damages and attorneys fees, which Savara may have to pay if it is determined that the product and/or its use at issue infringes or violates the third party s rights;
- a court prohibiting Savara from selling or licensing the product unless the third-party licenses its intellectual property rights to Savara, which it may not be required to do;
- if a license is available from the third party, Savara may have to pay substantial royalties, fees and/or grant cross-licenses to the third party; and
- redesigning Savara s products or processes so they do not infringe, which may not be possible or may require substantial expense and time.

No assurance can be given that patents do not exist, have not been filed, or could not be filed or issued, which contain claims covering Savara s products, product candidates or technology or those of its CMOs or component material suppliers or the use of its products, product candidates or technologies. Because of the large number of patents issued and patent applications filed in the industries in which Savara operates, there is a risk that third parties may allege they have patent rights encompassing Savara s products, product candidates or technologies, or those of its CMOs or component material suppliers, or uses of its products, product candidates or technologies.

In the future, it may be necessary for Savara to enforce its proprietary rights, or to determine the scope, validity and unenforceability of other parties proprietary rights, through litigation or other dispute proceedings, which may be costly, and to the extent Savara is unsuccessful, adversely affect its rights. In these proceedings, a court or administrative body could determine that its claims, including those related to enforcing patent rights, are not valid or that an alleged infringer has not infringed its rights. The uncertainty resulting from the mere institution and continuation of any patent- or other proprietary rights-related litigation or interference proceeding could have a material and adverse effect on its business prospects, operating results and financial condition.

Risks Related to Savara s Industry

Savara expects competition in the marketplace for its product candidates, should any of them receive regulatory approval.

AeroVanc and Molgradex have received Orphan Drug Designation from FDA and Molgradex has received Orphan Drug Designation from the European Medicines Agency. Orphan Drug Designation will provide market exclusivity in U.S. for seven years and 10 years in Europe, but only if (1) AeroVanc and Molgradex receive market approval before a competitor using the same active compound for the same indication, (2) Savara is able produce sufficient supply to meet demand in the marketplace, and (3) another product with the same active ingredient is not deemed clinically superior. AeroVanc has also received Qualified Infectious Disease Product (QIDP) status extending market exclusivity by an additional five years in addition to any other exclusivity obtained in the United States

The industries in which Savara operates (biopharmaceutical, specialty pharmaceutical, biotechnology and pharmaceutical) are highly competitive and subject to rapid and significant change. Developments by others may

render potential application of any of its product candidates in a particular indication obsolete or noncompetitive, even prior to completion of its development and approval for that indication. If successfully developed and approved, Savara expects its product candidates will face competition. Savara may not be able to compete successfully against organizations with competitive products, particularly large pharmaceutical companies. Many of its potential competitors have significantly greater financial, technical and human resources than Savara, and may be better equipped to develop, manufacture, market and distribute products. Many of these companies operate large, well-funded research, development and commercialization programs, have extensive experience in nonclinical and clinical studies, obtaining FDA and other regulatory approvals and manufacturing and marketing products, and have multiple products that have been approved or are in late-stage development. These advantages may enable them to receive approval from the FDA or any foreign regulatory agency before Savara and prevent Savara from competing due to their orphan drug protections. Smaller companies may also prove to be significant competitors, particularly through collaborative arrangements with large pharmaceutical and biotechnology companies. Furthermore, heightened awareness on the part of academic institutions, government agencies and other public and private research organizations of the potential commercial value of their inventions have led them to actively seek to commercialize the technologies they develop, which increases competition for investment in Savara s programs. Competitive products may be more effective, easier to dose, or more effectively marketed and sold, than theirs, which would have a material adverse effect on Savara s ability to generate revenue.

Savara is subject to uncertainty relating to healthcare reform measures and reimbursement policies that, if not favorable to its products, could hinder or prevent its products commercial success, if any of its product candidates are approved.

The unavailability or inadequacy of third-party payer coverage and reimbursement could negatively affect the market acceptance of its product candidates and the future revenues Savara may expect to receive from those products. The commercial success of its product candidates, if approved, will depend in part on the extent to which the costs of such products will be covered by third-party payers, such as government health programs, commercial insurance and other organizations. Third-party payers are increasingly challenging the prices and examining the medical necessity and cost-effectiveness of medical products and services, in addition to their safety and efficacy. These challenges to prices may be problematic to Savara since its products are targeted for a small number of patients (those suffering from orphan diseases) thus requiring Savara to charge very high prices in order to recover development costs and achieve a profit on its revenue. If these third-party payers do not consider its products to be cost-effective compared to other therapies, Savara may not obtain coverage for its products after approval as a benefit under the third-party payers plans or, even if Savara does, the level of coverage or payment may not be sufficient to allow Savara to sell its products on a profitable basis.

Significant uncertainty exists as to the reimbursement status for newly approved drug products, including coding, coverage and payment. There is no uniform policy requirement for coverage and reimbursement for drug products among third-party payers in the United States, therefore coverage and reimbursement for drug products can differ significantly from payer to payer. The coverage determination process is often a time-consuming and costly process that will require Savara to provide scientific and clinical support for the use of its products to each payer separately, with no assurance that coverage and adequate payment will be applied consistently or obtained. The process for determining whether a payer will cover and how much it will reimburse a product may be separate from the process of seeking approval of the product or for setting the price of the product. Even if reimbursement is provided, market acceptance of its products may be adversely affected if the amount of payment for its products proves to be unprofitable for healthcare providers or less profitable than alternative treatments or if administrative burdens make its products less desirable to use. Third-party payer reimbursement to providers of its products, if approved, may be subject to a bundled payment that also includes the procedure of administering its products or third-party payers may require providers to perform additional patient testing to justify the use of its products. To the extent there is no

separate payment for its product(s), there may be further uncertainty as to the adequacy of reimbursement amounts.

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The continuing efforts of governments, private insurance companies, and other organizations to contain or reduce costs of healthcare may adversely affect:

- Savara s ability to set an appropriate price for its products;
- the rate and scope of adoption of its products by healthcare providers;
- its ability to generate revenue or achieve or maintain profitability;
- the future revenue and profitability of its potential customers, suppliers and collaborators; and
- its access to additional capital.

Savara s ability to successfully commercialize its products will depend in part on the extent to which governmental authorities, private health insurers and other organizations establish what Savara believes are appropriate coverage and reimbursement for its products. The containment of healthcare costs has become a priority of federal and state governments worldwide and the prices of drug products have been a focus in this effort. For example, there have been several recent U.S. Congressional inquiries and proposed bills designed to, among other things, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for drugs and the new US President has stated that reducing drug pricing is a priority for his administration. Savara expect that federal, state and local governments in the United States, as well as in other countries, will continue to consider legislation directed at lowering the total cost of healthcare. In addition, in certain foreign markets, the pricing of drug products is subject to government control and reimbursement may in some cases be unavailable or insufficient. It is uncertain whether and how future legislation, whether domestic or abroad, could affect prospects for its product candidates or what actions federal, state, or private payers for healthcare treatment and services may take in response to any such healthcare reform proposals or legislation. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures reforms may prevent or limit its ability to generate revenue, attain profitability or commercialize its product candidates, especially in light of Savara s plans to price its product candidates at a high level.

Furthermore, Savara expects that healthcare reform measures that may be adopted in the future, including the possible repeal and replacement of the Affordable Care Act, which the Trump administration has stated is a priority, are unpredictable, and the potential impact on its operations and financial position is uncertain, but may result in more rigorous coverage criteria, lower reimbursement, and additional downward pressure on the price Savara may receive for approved product. Any reduction in reimbursement from Medicare or other government-funded programs may result in a similar reduction in payments from private payers. The implementation of cost containment measures or other healthcare reforms may prevent Savara from being able to generate revenue, attain profitability or commercialize its products, if approved.

Savara faces potential product liability exposure and, if successful claims are brought against it, Savara may incur substantial liability for a product or product candidate and may have to limit its commercialization. In the future, Savara anticipates that it will need to obtain additional or increased product liability insurance coverage and it is

uncertain whether such increased or additional insurance coverage can be obtained on commercially reasonable terms, if at all.

Savara s business (in particular, the use of its product candidates in clinical studies and the sale of any products for which it obtains marketing approval) will expose Savara to product liability risks. Product liability claims might be brought against Savara by patients, healthcare providers, pharmaceutical companies or others selling or involved in the use of its products. If Savara cannot successfully defend themselves against any such claims, Savara will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

decreased demand for its products and loss of revenue;

impairment of its business reputation;

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delays in enrolling patients to participate in its clinical studies;

withdrawal of clinical study participants;

a clinical hold, suspension or termination of a clinical study or amendments to a study design;

significant costs of related litigation;

substantial monetary awards to patients or other claimants; and

the inability to commercialize its products and product candidates.

Savara maintains limited product liability insurance for its clinical studies, but its insurance coverage may not reimburse Savara or may not be sufficient to reimburse Savara for all expenses or losses it may suffer. Moreover, insurance coverage is becoming increasingly expensive and, in the future, Savara may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect it against losses.

Savara expects that it will expand its insurance coverage to include the sale of commercial products if it obtains marketing approval for any of its product candidates, but Savara may be unable to obtain product liability insurance on commercially acceptable terms or may not be able to maintain such insurance at a reasonable cost or in sufficient amounts to protect Savara against potential losses. Large judgments have been awarded in class action lawsuits based on drug products that had unanticipated side effects. A successful product liability claim or series of claims brought against Savara, if judgments exceed its insurance coverage, could decrease its cash and adversely affect its business.

Risks Related to the Combined Organization

In determining whether you should approve the merger, the issuance of shares of Mast common stock and other matters related to the merger, as the case may be, you should carefully read the following risk factors in addition to the risks described above.

The stock price of the combined company is expected to be volatile, and the market price of its common stock may drop following the merger.

The market price of the combined company s common stock following the merger could be subject to significant fluctuations following the merger. Market prices for securities of early-stage pharmaceutical, biotechnology and other life sciences companies have historically been particularly volatile. Some of the factors that may cause the market price of the common stock of the combined company to fluctuate include:

the ability of the combined organization to obtain regulatory approvals for its product candidates, and delays or failures to obtain such approvals;

failure of any of the combined organization s product candidates, if approved, to achieve commercial success;

failure to maintain its existing third party license and supply agreements;

failure by Savara or Mast or its licensors to prosecute, maintain, or enforce its intellectual property rights;

changes in laws or regulations applicable to its product candidates;

any inability to obtain adequate supply of its product candidates or the inability to do so at acceptable prices;

adverse regulatory authority decisions;

introduction of new products, services, or technologies by its competitors;

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failure to meet or exceed financial and development projections the combined company may provide to the public;

failure to meet or exceed the financial and development projections of the investment community;

if securities or industry analysts do not publish research or reports about its business, or if they issue an adverse or misleading opinions regarding its business and stock;

the perception of the pharmaceutical industry by the public, legislatures, regulators, and the investment community;

announcements of significant acquisitions, strategic partnerships, joint ventures, or capital commitments by the combined company or its competitors;

disputes or other developments relating to proprietary rights, including patents, litigation matters, and its ability to obtain patent protection for its technologies;

additions or departures of key personnel;

significant lawsuits, including patent or stockholder litigation;

changes in the market valuations of similar companies;

general market or macroeconomic conditions;

sales of its common stock by the combined company or its stockholders in the future;

trading volume of its common stock.

announcements by commercial partners or competitors of new commercial products, clinical progress or the lack thereof, significant contracts, commercial relationships or capital commitments;

adverse publicity relating to the cystic fibrosis market generally, including with respect to other products and potential products in such markets;

the introduction of technological innovations or new therapies that compete with potential products of the combined organization;

changes in the structure of health care payment systems; and

period-to-period fluctuations in the combined organization s financial results.

Moreover, the stock markets in general have experienced substantial volatility that has often been unrelated to the operating performance of individual companies. These broad market fluctuations may also adversely affect the trading price of the combined organization s common stock.

In the past, following periods of volatility in the market price of a company s securities, stockholders have often instituted class action securities litigation against those companies. Such litigation, if instituted, could result in substantial costs and diversion of management attention and resources, which could significantly harm the combined organization s profitability and reputation.

The combined organization will incur costs and demands upon management as a result of complying with the laws and regulations affecting public companies.

The combined organization will incur significant legal, accounting and other expenses that Savara did not incur as a private company, including costs associated with public company reporting requirements. The combined organization will also incur costs associated with corporate governance requirements, including requirements under the Sarbanes-Oxley Act, as well as new rules implemented by the SEC and the NYSE MKT. These rules and regulations are expected to increase the combined organization s legal and financial compliance costs and to make some activities more time-consuming and costly. For example, the combined organization s

management team will consist of certain officers of Savara prior to the merger, some of whom have not previously managed and operated a public company. These officers and other personnel will need to devote substantial time to gaining expertise regarding operations as a public company and compliance with applicable laws and regulations. These rules and regulations may also make it difficult and expensive for the combined organization to obtain directors and officers liability insurance. As a result, it may be more difficult for the combined organization to attract and retain qualified individuals to serve on the combined organization s board of directors or as executive officers of the combined organization, which may adversely affect investor confidence in the combined organization and could cause the combined organization s business or stock price to suffer.

The combined company does not expect to pay any cash dividends in the foreseeable future.

The combined organization expects to retain its future earnings to fund the development and growth of the combined organization s business. As a result, capital appreciation, if any, of the common stock of the combined organization will be your sole source of gain, if any, for the foreseeable future.

Future sales of shares by existing stockholders could cause the combined organization s stock price to decline.

If existing stockholders of Mast or Savara sell, or indicate an intention to sell, substantial amounts of the combined organization s common stock in the public market after legal restrictions on resale and the lock-up agreements discussed in this proxy statement/prospectus/information statement lapse, the trading price of the common stock of the combined organization could decline. Based on shares outstanding as of December 31, 2016 and shares expected to be issued upon completion of the merger, the combined organization is expected to have outstanding a total of approximately 1.1 billion shares of common stock (before giving effect to the proposed Reverse Stock Split) immediately following the completion of the merger. Substantially all of such shares of common stock may be sold in the public market; however, certain of such shares are subject to lock-up restrictions as described on page 158. If substantial additional shares are sold, or if it is perceived that they will be sold, in the public market, the trading price of the combined organization common stock could decline.

Because the merger will likely result in an ownership change under Section 382 of the Code for Mast, Mast s pre-merger net operating loss carryforwards and certain other tax attributes will be subject to limitation. The net operating loss carryforwards and certain other tax attributes of Savara and of the combined company may also be subject to limitations as a result of ownership changes.

If a corporation undergoes an ownership change within the meaning of Section 382 of the Code, the corporation s net operating loss carryforwards and certain other tax attributes arising from before the ownership change are subject to limitations on use after the ownership change. In general, an ownership change occurs if there is a cumulative change in the corporation s equity ownership by certain stockholders that exceeds fifty percentage points over a rolling three-year period. Similar rules may apply under state tax laws. The merger will likely result in an ownership change for Mast and, accordingly, Mast s net operating loss carryforwards and certain other tax attributes will be subject to limitations on their use after the merger. The merger may also result in an ownership change for Savara, in which case, Savara s net operating loss carryforwards and certain other tax attributes would also be subject to limitations. Additional ownership changes in the future could result in additional limitations on Mast s, Savara s and the combined organization s net operating loss carryforwards. Consequently, even if the combined organization achieves profitability, it may not be able to utilize a material portion of Mast s, Savara s or the combined organization s net operating loss carryforwards and other tax attributes, which could have a material adverse effect on cash flow and results of operations.

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CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

This proxy statement/prospectus/information statement and the documents incorporated by reference into this proxy statement/prospectus/information statement contain forward-looking statements. These forward-looking statements are based on current expectations and beliefs and involve numerous risks and uncertainties that could cause actual results to differ materially from expectations. These forward-looking statements should not be relied upon as predictions of future events as Mast and Savara cannot assure you that the events or circumstances reflected in these statements will be achieved or will occur. You can identify forward-looking statements by the use of forward-looking terminology including believes, expects, may, will, should, seeks, intends, plans, pro forma, estima or the negative of these words and phrases or other variations of these words and phrases or comparable terminology. All statements other than statements of historical fact are statements that could be deemed forward-looking statements. For example, forward-looking statements include, but are not limited to statements about:

- the expected benefits of and potential value created by the merger for the stockholders of Mast and Savara;
- any statements of the plans, strategies and objectives of management for future operations, including the execution and timing of integration plans;
- likelihood of the satisfaction of certain conditions to the completion of the merger and whether and when the merger will be consummated;
- statements of the plans, strategies and objectives of management with respect to the approval and closing of the merger, and the ability of Mast and Savara to solicit a sufficient number of proxies or written consents, as applicable, to approve matters related to the consummation of the merger;
- any statements concerning proposed new products, services or developments;
- any statements regarding future economic conditions or performance; and
- statements of belief and any statement of assumptions underlying any of the foregoing.

For a discussion of the factors that may cause Mast, Savara or the combined organization s actual results, performance or achievements to differ materially from any future results, performance or achievements expressed or implied in such forward-looking statements, or for a discussion of risk associated with the ability of Mast and Savara to complete the merger and the effect of the merger on the business of Mast, Savara and the combined organization, see Risk Factors beginning on page 24.

Additional factors that could cause actual results to differ materially from those expressed in the forward-looking statements are discussed in reports filed with the SEC by Mast. See Where You Can Find More Information beginning on page 291.

If any of these risks or uncertainties materializes or any of these assumptions proves incorrect, the results of Mast, Savara or the combined organization could differ materially from the forward-looking statements. All forward-looking statements in this proxy statement/prospectus/information statement are current only as of the date on which the statements were made. Mast and Savara do not undertake any obligation to publicly update any forward-looking statement to reflect events or circumstances after the date on which any statement is made or to reflect the occurrence of unanticipated events.

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THE SPECIAL MEETING OF MAST STOCKHOLDERS

Date, Time and Place

The special meeting of Mast stockholders will be held on April 21, 2017, at 3611 Valley Center Drive, Suite 500, San Diego, California 92130 commencing at 9:00 a.m., local time. Mast is sending this proxy statement/prospectus/information statement to its stockholders in connection with the solicitation of proxies by the Mast Board for use at the Mast special meeting and any adjournments or postponements of the special meeting. This proxy statement/prospectus/information statement is first being furnished to stockholders of Mast on or about March 17, 2017.

Purposes of the Mast Special Meeting

The purposes of the Mast special meeting are:

1. To consider and vote upon a proposal to approve the merger and the issuance of Mast common stock in the merger pursuant to the Agreement and Plan of Merger and Reorganization, dated as of January 6, 2017, by and among Mast, Merger Sub and Savara, a copy of which is attached as Annex A to this proxy statement/prospectus/information statement;

2. To approve the amendment and restatement of the amended and restated certificate of incorporation of Mast to effect a reverse stock split of Mast common stock in accordance with a ratio to be determined by mutual agreement of Mast and Savara, and approved by the Mast Board, within a range of one share of Mast common stock for every 50 to 70 shares of Mast common stock (or any number in between) in the form attached as Annex D to this proxy statement/prospectus/information statement;

3. To approve the amendment and restatement of the amended and restated certificate of incorporation of Mast to change the name Mast Therapeutics, Inc. to Savara Inc. in the form attached as Annex D to this proxy statement/prospectus/information statement;

4. To consider and vote upon a proposal 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;

5. To consider and vote upon an adjournment of the Mast special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Mast Proposal Nos. 1, 2, 3 and 4; and

6. To transact such other business as may properly come before the Mast special meeting or any adjournment or postponement thereof.

Recommendation of the Mast Board

The Mast Board has determined and believes that the merger and the issuance of shares of Mast common stock pursuant to the merger is in the best interests of, Mast and its stockholders and has approved such items. The Mast Board recommends that Mast stockholders vote FOR Mast Proposal No. 1 to approve the merger and the issuance of shares of Mast common stock in the merger.

The Mast Board has determined and believes that it is advisable to, and in the best interests of, Mast and its stockholders to approve the amendment and restatement of the amended and restated certificate of incorporation of

Mast effecting the proposed Reverse Stock Split, as described in this proxy statement/prospectus/information statement. The Mast Board recommends that Mast stockholders vote FOR Mast Proposal No. 2 to approve the amendment and restatement of the amended and restated certificate of incorporation of Mast effecting the proposed Reverse Stock Split, as described in this proxy statement/prospectus/information statement.

The Mast Board has determined and believes that the amendment and restatement of the amended and restated certificate of incorporation of Mast to change the name of Mast to Savara Inc. is advisable to, and in

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the best interests of, Mast and its stockholders and has approved such name change. The Mast Board recommends that Mast stockholders vote FOR Mast Proposal No. 3 to approve the name change.

The Mast Board has determined and believes that the compensation that will or may become payable by Mast to its named executive officers in connection with the merger is appropriate, and accordingly recommends that the Mast stockholders vote FOR Mast Proposal No. 4 to approve, on a non-binding advisory vote basis, such compensation.

The Mast Board has determined and believes that adjourning the Mast special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Mast Proposal Nos. 1, 2, 3 and 4 is advisable to, and in the best interests of, Mast and its stockholders and has approved and adopted the proposal. The Mast Board recommends that Mast stockholders vote FOR Mast Proposal No. 5 to adjourn the Mast special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Mast Proposal Nos. 1, 2, 3 and 4.

Record Date and Voting Power

Only holders of record of Mast common stock at the close of business on the record date, March 13, 2017, are entitled to notice of, and to vote at, the Mast special meeting. At the close of business on the record date, 254,746,933 shares of Mast common stock were issued and outstanding. Each share of Mast common stock entitles the holder thereof to one vote on each matter submitted for stockholder approval. See the section entitled Principal Stockholders of Mast in this proxy statement/prospectus/information statement for information regarding persons known to the management of Mast to be the beneficial owners of more than 5% of the outstanding shares of Mast common stock.

Voting and Revocation of Proxies

The proxy accompanying this proxy statement/prospectus/information statement is solicited on behalf of the Mast Board for use at the Mast special meeting.

If you are a stockholder of record of Mast as of the record date referred to above, you may vote in person at the Mast special meeting or vote by proxy using the enclosed proxy card. Whether or not you plan to attend the Mast special meeting, Mast urges you to vote by proxy to ensure your vote is counted. You may still attend the Mast special meeting and vote in person if you have already voted by proxy. As a stockholder of record, you have the right:

- to vote in person, come to the Mast special meeting and Mast will give you a ballot when you arrive.
- to vote using the proxy card, simply mark, sign and date your proxy card and return it promptly in the postage-paid envelope provided. If you return your signed proxy card to Mast before the Mast special meeting, Mast will vote your shares as you direct.
- to vote on the Internet, go to the website on the proxy card or voting instruction form to complete an electronic proxy card. You will be asked to provide the company number and control number from the enclosed proxy card. Your vote must be received by April 20, 2017, 11:59 p.m. Eastern Time to be counted.

If your Mast shares are held by your broker as your nominee, that is, in street name, the enclosed voting instruction card is sent by the institution that holds your shares. Please follow the instructions included on that proxy card regarding how to instruct your broker to vote your Mast shares. If you do not give instructions to your broker, your

broker can vote your Mast shares with respect to discretionary items but not with respect to non-discretionary items. Discretionary items are proposals considered routine under the rules of the NYSE MKT on which your broker may vote shares held in street name in the absence of your voting instructions. On non-discretionary items for which you do not give your broker instructions, the Mast shares will be treated as broker non-votes. It is anticipated that Mast Proposal No. 1 will be a non-discretionary item.

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All properly executed proxies that are not revoked will be voted at the Mast special meeting and at any adjournments or postponements of the Mast special meeting in accordance with the instructions contained in the proxy. If a holder of Mast common stock executes and returns a proxy and does not specify otherwise, the shares represented by that proxy will be voted FOR Mast Proposal No. 1 to approve the merger and the issuance of shares of Mast common stock in the merger; FOR Mast Proposal No. 2 to approve the amendment and restated of the amended and restated certificate of incorporation of Mast effecting the proposed Reverse Stock Split; FOR Mast Proposal No. 3 to approve the amendment and restated of the amended and restated certificate of incorporation of Mast to change the name of Mast Therapeutics, Inc. to Savara Inc. ; FOR Mast Proposal No. 4 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; and FOR Mast Proposal No. 5 to adjourn the Mast special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Mast Proposal Nos. 1, 2, 3 and 4 in accordance with the recommendation of the Mast Board.

Mast stockholders of record, other than those Mast stockholders who have executed support agreements, may change their vote at any time before their proxy is voted at the Mast special meeting in one of three ways. First, a stockholder of record of Mast can send a written notice to the Secretary of Mast stating that the stockholder would like to revoke its proxy. Second, a stockholder of record of Mast can submit new proxy instructions either on a new proxy card or via the Internet or telephone. Third, a stockholder of record of Mast can attend the Mast special meeting and vote in person. Attendance alone will not revoke a proxy. If a Mast stockholder of record or a stockholder who owns Mast shares in street name has instructed a broker to vote its shares of Mast common stock, the stockholder must follow directions received from its broker to change those instructions.

Required Vote

The presence, in person or represented by proxy, at the Mast special meeting of the holders of a majority of the shares of Mast common stock outstanding and entitled to vote at the Mast special meeting is necessary to constitute a quorum at the meeting. Abstentions and broker non-votes will be counted towards a quorum. Approval of Mast Proposal Nos. 1, 4 and 5 requires the affirmative vote of the holders of a majority of the shares of Mast common stock having voting power present in person or represented by proxy at the Mast special meeting. Approval of Mast Proposal Nos. 2 and 3 requires the affirmative vote of holders of a majority of the Mast common stock having voting power outstanding on the record date for the Mast special meeting. **Each of Proposal Nos. 1, 2 and 3 are conditioned upon each other. Therefore, the merger cannot be consummated without the approval of Proposal Nos. 1, 2 and 3.**

Votes will be counted by the inspector of election appointed for the meeting, who will separately count FOR and AGAINST votes, abstentions and broker non-votes. Abstentions will be counted towards the vote total for each proposal and will have the same effect as AGAINST votes. Broker non-votes will have the same effect as AGAINST votes for Mast Proposal Nos. 2 and 3. For Mast Proposal Nos. 1, 4 and 5, broker non-votes will have no effect and will not be counted towards the vote total, but will be used to determine whether a quorum is present at the Mast special meeting.

As of December 31, 2016, the directors and executive officers of Mast owned less than one percent of the outstanding shares of Mast common stock entitled to vote at the Mast special meeting. The directors and executive officers of Mast owning these shares are subject to voting agreements. Each stockholder that entered into a voting agreement has agreed to vote all shares of Mast common stock owned such stockholder as of the record date in favor of the merger and the issuance of Mast common stock in the merger pursuant to the Merger Agreement, the adoption of the Merger Agreement if submitted for adoption, the approval of any proposal to adjourn or postpone the meeting to a later date, if there are not sufficient votes for the merger and the issuance of Mast common stock in the merger pursuant to the Merger Agreement on the date on which such meeting is held, and any other matter necessary to consummate the

transactions contemplated by the Merger Agreement that are considered and voted upon by Mast s stockholders and against any acquisition proposal, as defined in the

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Merger Agreement. As of December 31, 2016, Mast is not aware of any affiliate of Savara owning any shares of Mast common stock entitled to vote at the Mast special meeting.

Solicitation of Proxies

In addition to solicitation by mail, the directors, officers, employees and agents of Mast may solicit proxies from Mast stockholders by personal interview, telephone, telegram or otherwise. Arrangements will also be made with brokerage firms and other custodians, nominees and fiduciaries who are record holders of Mast common stock for the forwarding of solicitation materials to the beneficial owners of Mast common stock. Mast will reimburse these brokers, custodians, nominees and fiduciaries for the reasonable out-of-pocket expenses they incur in connection with the forwarding of solicitation materials. Mast has retained Advantage Proxy to assist it in soliciting proxies using the means referred to above. Mast will pay the fees of Advantage Proxy, which Mast expects to be approximately $10,000, plus reimbursement of out-of-pocket expenses.

Other Matters

As of the date of this proxy statement/prospectus/information statement, the Mast Board does not know of any business to be presented at the Mast special meeting other than as set forth in the notice accompanying this proxy statement/prospectus/information statement. If any other matters should properly come before the Mast special meeting, it is intended that the shares represented by proxies will be voted with respect to such matters in accordance with the judgment of the persons voting the proxies.

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THE MERGER

This section and the section entitled The Merger Agreement in this proxy statement/prospectus/information statement describe the material aspects of the merger, including the Merger Agreement. While Mast and Savara believe that this description covers the material terms of the merger and the Merger Agreement, it may not contain all of the information that is important to you. You should read carefully this entire proxy statement/prospectus/information statement for a more complete understanding of the merger and the Merger Agreement, including the Merger Agreement, and the other documents to which you are referred herein. See the section entitled Where You Can Find More Information in this proxy statement/prospectus/information statement.

Background of the Merger

Mast is currently focused on the development of its lead product candidate, AIR001. Mast had previously devoted substantially all of its research, development and clinical efforts and financial resources toward the development of vepoloxamer. Vepoloxamer was previously in clinical development in sickle cell disease and heart failure, but following negative top-line results of the Phase 3 study in sickle cell disease known as EPIC in September 2016, Mast determined to discontinue clinical development of vepoloxamer and wind down all of the clinical studies.

As a consequence of the negative results from the vepoloxamer trial and concerns over the difficulty in raising additional funds to further development of AIR001, the Mast Board began evaluating its strategic opportunities to maximize stockholder value, including the possibility of seeking a merger, a sale of the company or all or some of its assets, and/or a liquidation. Mast s management provided the Mast Board with management s preliminary assessment of a variety of strategic alternatives that Mast could pursue to maximize stockholder value, including engaging in a reverse merger process, a sale of some or all of Mast s assets, or distributing some or all of Mast s remaining cash through either a dividend or a liquidation of Mast.

On September 20, 2016, Mast announced its intent to implement significant cost-saving measures to its vepoloxamer development programs immediately and to continue development of AIR001, in particular by supporting ongoing, investigator-sponsored Phase 2 clinical studies of AIR001 in heart failure with preserved ejection fraction.

On September 21, 2016, the Mast Board held a meeting with representatives of management and Mast s corporate counsel, DLA Piper LLP (US) (DLA) in attendance. DLA was generally invited to attend all Mast Board and Mast Board committee meetings. After a representative from DLA described the Mast Board s fiduciary duties in connection with a strategic process, the Mast Board discussed Mast s strategic options. Brian Culley, Mast s Chief Executive Officer, led a discussion regarding business strategy and planning, cash management, potential strategic and financing opportunities, and NYSE MKT continued listing requirements. Mr. Culley reviewed potential timing and financial implications of a hypothetical reverse merger transaction with a private company, for planning purposes, as well as an overview regarding various potential transactions being explored, primarily with biotechnology companies.

On September 23, 2016, the Mast Board held a telephonic meeting with representatives of management and DLA in attendance. Mr. Culley led a discussion regarding Mast s business strategy and planning, including proposing the termination of the vepoloxamer program and focus on development of AIR001 program, significant reductions in operating expenses and potential financing and partnering opportunities. The Mast Board discussed public communication of Mast s proposed focus and strategy.

On September 25, 2016, the Mast Board held a telephonic meeting with representatives of management and DLA in attendance. Management discussed a revised forecast and budget assuming the termination of all vepoloxamer program and related operating expenses. The Mast Board approved the revised forecast, including

the corresponding reduction in workforce. Mr. Culley led a discussion regarding Mast s alternatives for raising capital to fund operations, including its AIR001 program.

On September 26, 2016, Mast confirmed its previously announced plans to prioritize its AIR001 program with continued support for three separate, ongoing, investigator-sponsored Phase 2 clinical studies of AIR001 and suspend further research or development of its vepoloxamer program and announced that it was initiating a process to evaluate partnership opportunities for its assets.

Beginning in September 2016 and continuing into December 2016, Mast conducted a process of identifying and evaluating potential strategic combinations. In its review, Mast focused primarily on biotechnology companies possessing (i) product development candidates with the potential for significant value appreciation, (ii) resources sufficient to achieve potentially meaningful development milestones, including resources that might be obtained through financing activities consummated prior to the effectiveness of a combination with Mast as well as the resources that would result from a combination with Mast, (iii) an ability to enter into an agreement in the near-term for a combination with a public company and thereafter proceed in an orderly manner toward implementing the combination, and (iv) a management team with the breadth and skills to accomplish the foregoing. Working with Roth Capital Partners, LLC (Roth), Mast s financial advisor, Mast identified and screened approximately 35 companies and set management calls and meetings with 32 companies. These activities resulted in indications of interest in a potential combination with 7 companies. In evaluating these indications of interest, including in certain cases through discussions and diligence activities with potential counterparties (see in this regard the discussion below with respect to Mast s engagement with Parties A, B, C, D, E, G and I), Mast ultimately concluded in each instance (except for Savara) that (x) one or more desired elements were missing from a potential combination, (y) the terms expected to be available to Mast and its stockholders in a potential combination, including as represented by the potential share of the combined company that might be owned by the pre-combination Mast stockholders immediately following a combination and any concurrent financing, would likely not maximize value for the pre-combination Mast stockholders because the parties making the proposals did not adequately value Mast s AIR001 candidate, and/or (z) Mast should pursue a combination with Savara to the exclusion of other possibilities. In the course of its process, Savara was the only party with which Mast ultimately reached a mutual understanding on deal terms, including the potential share of the combined company that would be owned by the pre-combination Mast stockholders immediately following a combination and any concurrent financing, and moved forward with negotiating a definitive merger agreement.

On September 29, 2016, Mr. Culley met informally with a representative of a potential counterparty to a business combination transaction. On September 30, 2016, Mr. Culley exchanged messages with representatives of such party regarding a potential business combination. On October 5, 2016, Mr. Culley met informally with a representative of such counterparty. Such counterparty indicated that it would not pursue a business combination at this time.

On September 30, 2016, Mr. Culley contacted the chief executive officer of Party A. The parties had previously executed a confidentiality agreement on February 25, 2016. The parties discussed their respective companies and the potential for a business combination. The parties agreed to have a formal meeting at Party A s offices.

On October 5, 2016, Mr. Culley met informally with a representative of a potential counterparty to a business combination transaction. Following discussion, the representative indicated that the counterparty was not interested in pursuing a combination with Mast at such time.

On October 6, 2016, Mr. Culley received a telephone call from a representative of Party A during which the parties discussed, among other things, their respective companies and the potential for a business combination. Also on October 6, 2016, Mr. Culley met informally with a representative of a potential counterparty to a business

combination transaction. Following discussion, the representative indicated that the counterparty was not interested in pursuing a combination with Mast at such time.

On October 10, 2016, Brandi Roberts, Mast s Chief Financial Officer, met informally with the chairman of the board of directors of Party B. They discussed, among other things, updates on their respective businesses. The representative of Party B expressed an interest in pursuing a business combination and provided Mast with information relating to Party B s business.

On October 13, 2016, Mr. Culley discussed with representatives of Roth potential counterparties to a business combination. The parties discussed the current interest and status of ongoing discussions.

On October 14, 2016, Mr. Culley and Ms. Roberts met informally with the chairman of the board of directors of Party B. They discussed, among other things, updates on their respective businesses and mutual interest in a potential business combination. Also on October 14, 2016, Mr. Culley made a telephone call to a representative of a potential counterparty to a business combination transaction. Following discussion, the representative indicated that the counterparty was not interested in pursuing a combination with Mast at such time.

On October 17 to October 18, 2016, representatives of Mast met with representatives of Party A at Party A s offices. The parties discussed their respective businesses, strategic plans for Party A s clinical studies and a potential business combination. Representatives of Mast also toured Party A s facilities and were presented the opportunity to ask follow-up diligence questions. Following the meeting, the parties exchanged messages and calls continuing to discuss matters relating to their respective businesses and a potential business combination.

On October 18, 2016, the Mast Board held a telephonic meeting with representatives of management and DLA present. Mr. Culley provided an update regarding the nature and status of various companies being explored as possible counterparties for a potential combination with Mast, including Party A and Party B, as well as the expressed interest by certain possible counterparties in such a combination. The Mast Board also discussed the reduction in workforce, which reduction had previously discussed and approved on September 25, 2016, and approved management s proposed timing for additional reductions.

Also on October 18, 2016, Mr. Culley was provided an introduction to Party D. Party D provided to Mast a proposed confidentiality agreement in order to conduct diligence into a potential businession combination transaction.

On October 24, 2016, representatives of Mast hosted a representative of Party A at Mast s offices to conduct due diligence for a potential business combination.

Also on October 24, 2016, Mast executed an engagement letter with Roth as its exclusive financial advisor in connection with a potential merger, reorganization or other business combination transaction or potential alternatives thereto.

On October 24, 2016, Mr. Culley met informally with a representative of a potential counterparty to a business combination transaction. Following discussion, the representative indicated that the counterparty was not interested in pursuing a combination with Mast at such time.

From October 20 to October 26, 2016, representatives of Mast exchanged a series of messages and calls with representatives of Party C has discussions via telephone conference during which the parties discussed, among other things, updates on their respective businesses and mutual interest in a potential business combination. On October 27, 2016, Mast entered into a mutual confidentiality agreement with Party C and provided preliminary diligence information to Party C.

On October 27, 2016, Mr. Culley was provided an introduction to Party E. The parties exchanged messages and arranged for a teleconference the following day. On October 28, 2016, Mr. Culley and representatives of Party E had discussions via telephone conference during which the parties discussed, among other things, updates on their respective businesses and mutual interest in a potential business combination.

On October 28, 2016, representatives of Mast met with representatives of Party B at Party B s offices. The parties discussed their respective businesses and a potential business combination. Representatives of Mast also toured Party B s facilities and were offered the opportunity to ask follow-up diligence questions.

Also on October 28, 2016, Mast entered into a confidentiality agreement with Party D.

Also on October 28, 2016, Mr. Culley met informally with a representative of a potential counterparty to a business combination transaction. Following discussion, the representative indicated that the counterparty was not interested in pursuing a combination with Mast at such time. In addition, on October 28, 2016, Mr. Culley made a telephone call to a representative of a potential counterparty to a business combination transaction. Following discussion, the representative indicated that the counterparty was not interested in pursuing a combination with Mast at such time.

On October 31, 2016, Mast announced a workforce reduction as part of its previously described strategic focus on AIR001 and plan to significantly reduce operating costs, which reduction had been approved by the Mast Board on October 18, 2016. The reduction brought the aggregate reductions since the beginning of October to approximately 38% of Mast s workforce. Mast also announced plans to implement additional cost control measures in the fourth quarter of 2016 to further reduce its expenditures.

On November 1, 2016, Mr. Culley and a representative of Party C had discussions via telephone during which the parties discussed, among other things, updates on their respective businesses and mutual interest in a potential business combination. Also, on November 1 and November 2, 2016, Mr. Culley held a series of telephone calls with a representative of a potential counterparty to a business combination transaction. Following discussion, the representative indicated that the counterparty was not interested in pursuing a combination with Mast at such time.

On November 1, 2016, representatives of Party A notified representatives of Mast that Party A was no longer interested in pursuing a potential business combination with Mast at this time.

On November 1, 2016, Mast entered into a mutual confidentiality agreement with Party E and provided preliminary diligence information to Party E.

On November 3, 2016, the Mast Board held a telephonic meeting with representatives of management and DLA present. Mr. Culley provided an update on the ongoing diligence and discussions with possible counterparties for a potential combination. Also on November 3, 2016, representatives of Roth, on behalf of Mast, had discussions via telephone with representatives of Party B regarding a proposal for a business combination with Mast.

On November 4, 2016, representatives of Mast met with representatives of Party E at Mast s offices. The parties discussed their respective businesses, strategic plans for Party E s clinical studies and a potential business combination. Later that day, Mr. Culley met with representatives of Party B to conduct additional due diligence.

Also on November 4, 2016, Mr. Culley exchanged a series of messages and calls with representatives of Party D discussing, among other things, updates on the respective companies businesses and conducting further due diligence.

In addition, on November 4, 2016, representatives of Roth provided representatives of Mast a preliminary business overview of Party F.

On November 7, 2016, Mr. Culley and a representative of Party E had discussions via telephone during which the parties discussed, among other things, updates on their respective businesses and mutual interest in a potential business combination. Also on November 7, 2016, Mr. Culley indicated to Party D that, at this time,

based on a review of Party D s business, Mr. Culley did not believe that Party D met the Mast Board s criteria of a potential counterparty to a potential business combination, however, the parties agreed to meet informally to further discuss a potential combination.

On November 8 to November 9, 2016, representatives of Mast met with representatives of Party E at Party E s offices. The parties discussed their respective businesses, strategic plans for Party E s clinical studies and a potential business combination. Representatives of Mast also toured Party E s offices and were offered the opportunity to ask follow-up diligence questions.

On November 9, 2016, representatives of Mast met with representatives of Party E. The parties discussed follow up diligence questions from the previous meeting as well as a potential business combination. Mr. Culley informed Party E that the Mast Board would review any formal proposal presented. Following the meeting, on November 10, 2016, Mr. Culley spoke with representatives of Party E, discussing additional matters relating to their respective businesses.

On November 11, 2016, Mr. Culley spoke with a representative of Canaccord, Savara s financial advisor, to discuss Savara as a potential counterparty to a business combination with Mast. Also on November 11, 2016, Mr. Culley received a written indication of interest from Party E. Mr. Culley promptly communicated receipt of the proposal to the Mast Board.

On November 15, 2016, Mr. Culley had discussions via telephone with representatives of Party C during which the parties discussed, among other things, Party C s interest in submitting an indication of interest for a business combination with Mast. Mr. Culley indicated that the Mast Board would review any offer formally submitted. Following the call, Party C submitted a non-binding preliminary indication of interest to Mr. Culley. Mr. Culley promptly communicated receipt of the proposal to the Mast Board. Also on November 15, 2016, Mr. Culley met informally with a representative of Party B during which the parties discussed, among other things, a potential business combination.

On November 16, 2016, the Savara Board held a meeting with representatives of management, Canaccord and Wilson Sonsini Goodrich & Rosati, P.C. (WSGR) present. Management provided an overview of the potential benefits and risks of a transaction with Mast as well as potential financing transactions. As a result of this meeting, the Savara Board authorized management to engage in discussions with Mast and to conduct due diligence. Following the Savara Board meeting, Mast entered into a mutual confidentiality agreement with Savara.

In addition, on November 16, 2016, Party G submitted a non-binding preliminary indication of interest to Mr. Culley. Mr. Culley promptly communicated receipt of the proposal to the Mast Board. Also on November 16, 2016, Mast entered into a mutual confidentiality agreement with Party B and provided preliminary diligence information to Party B.

On November 17 and November 18, 2016, Mr. Culley and Robert Neville, Chief Executive Officer of Savara, held a series of telephone meetings to discuss their respective businesses and Savara s interest in potential business combination. Mr. Culley indicated that he would present any formal proposal to the Mast Board.

On November 17 and 18, 2016, representatives of Mast exchanged various emails and calls with Party F regarding, among other things, updates and overviews of the respective parties businesses, due diligence matters, and a potential business combination.

On November 18, 2016, Savara submitted a non-binding preliminary indication of interest to Mast through Canaccord.

On November 18, 2016, the Mast Board held a telephonic meeting with representatives of management, Roth and DLA present. Mr. Culley provided an update on the ongoing diligence and discussions with possible

counterparties for a potential combination, as well as the interest expressed by certain possible counterparties in such a combination. Mr. Culley promptly communicated receipt of the proposal to the Mast Board. Also on November 18, 2016, Mast entered into a confidentiality agreement with Party G.

On November 21, 2016, Mast announced that it had received several written indications of interest in a reverse merger business combination and was continuing to review its strategic alternatives to maximize stockholder value. Following the announcement, a representative of Roth, at the instruction of the Mast Board, sent a bid process letter and a draft merger agreement to Savara and Parties B, C, E, F, G and two other parties, each of whom had expressed an interest in a business combination with Mast. Roth s letter requested any bids be submitted by November 28, 2016. Following circulation of the bid process letter and draft merger agreement, a representative of Mast and a representative of Party G discussed certain due diligence information, including a discussion of their respective businesses, backgrounds and experience. In addition, following circulation of the bid process letter, representatives of Party F notified representatives of Mast that Party F was not interested in pursuing a business combination with Mast at this time.

Also on November 21, 2016, representatives of Mast met at Mast s offices with representatives of Party E in order to conduct additional diligence for a potential business combination. Later on November 21, 2016, Mast and Party G provided access to their respective virtual data rooms containing certain business and financial data to the other party. Also on November 21, 2016, Mast and Savara provided access to their respective virtual data rooms containing certain business and financial data to the other party. In addition, on November 21, 2016, Mast provided access of its virtual data rooms containing certain business and financial data to Party B.

On November 22, 2016, representatives of Mast held a due diligence call with representatives of Party E, discussing their respective businesses, and a potential business combination.

Also on November 22, 2016, representatives of Mast met at Mast s offices with representatives of Party G in order to conduct additional diligence for a potential business combination. In addition, on November 22, 2016, Mr. Culley held a series of telephonic conversations with representatives of Party G, during which the parties discussed, among other thing, the bid process and the potential business combination transaction. Mr. Culley indicated that he would present any formal proposal to the Mast Board.

On November 22, 2016, Mr. Culley was provided an introduction to representatives of Party H. The parties exchanged messages regarding preliminary due diligence and on November 23, 2016, Mast entered into a confidentiality agreement with Party H.

On November 23, 2016, Mr. Culley and Mr. Neville discussed the bid process and a potential business combination.

On November 28, 2016, Mr. Neville submitted a response letter to Mast through Roth detailing certain discussion items with respect to the draft merger agreement. Following submission of Savara s proposal, representatives of Savara and representatives of Mast exchanged messages on November 28, 2016 to November 29, 2016 regarding due diligence matters with respect to each respective company s product candidates. Also on November 28, 2016, representatives of Parties C, E and G submitted a proposal for a business combination to representatives of Roth which was promptly transmitted to representatives of Mast. Mr. Culley promptly transmitted the proposals to the Mast Board.

In addition, on November 28, 2016, representatives of Mast met with representatives of Party H at Mast s offices. The parties discussed their respective businesses and a potential business combination. Following the meeting, Mr. Culley had discussions with a representative with Party H where they discussed the bid process and follow up diligence questions. At this point, management instructed Roth to provide Party H with the bid process letter.

On November 29, 2016, representatives of Party B submitted a proposal for a business combination to representatives of Mast and Roth. Party B then provided access to its virtual data rooms containing certain business and financial data to Mast. Following receipt of the proposal, representatives of Mast and representatives of Roth discussed the indications of interest received to date. Following the discussion, Mr. Culley promptly communicated the indication of interest to the Mast Board and arranged for a telephonic meeting the following day to discuss Mast s response.

On November 30, 2016, representatives of Mast met with representatives of Savara at Mast s offices to conduct additional due diligence relating to the respective companies businesses, including the status of Savara s clinical studies for its product candidates, Savara s capital structure, Mast s lead product candidate, and a potential business combination. Following the meeting, the Mast Board held a telephonic meeting, with management, Roth and DLA present. After a representative from DLA described the Mast Board s fiduciary duties in connection with various indications of interest, the Mast Board discussed each proposal in detail. Management indicated that it was still in discussions with other possible counterparties. Following review of the proposals received to date and management s discussion of the ongoing process, the Mast Board determined that the current proposals did not adequately reflect the value of Mast and directed management to work with Roth in responding to the proposals and to determine whether the possible counterparties would improve their respective proposals. Following the meeting, Roth communicated with each party who submitted an indication of interest that the Mast Board had reviewed all proposals and determined that the submitted proposals did not adequately reflect the value of Mast and invited the parties to submit improved proposals for a business combination by December 5, 2016. In addition, Roth informed management that they submitted the bid process letter to Party I, who Roth believed may have an interest in a business combination with Mast.

Also on November 30, 2016, representatives of Mast met with representatives of Party E to discuss the clinical operations of the respective companies.

On December 1, 2016, representatives of Mast held a due diligence meeting with representatives of Party E to discuss, among other things and their respective businesses, a potential business combination. Following the meeting, on December 2, 2016, representatives of Mast, including Roth, exchanged messages with representatives of Party E regarding the status of the diligence process as well as a discussion of the bid process. Party E indicated it would review the potential business combination internally and determine whether it would submit an improved proposal for a business combination.

On December 1, 2016, Party D submitted to Mr. Culley, an unsolicited proposal, which Mr. Culley communicated to and discussed with the Chair of the Mast Board and Roth, concluding that Party D s proposal did not meet the criteria of the Mast Board. Also on December 1, 2016, Party I submitted to Mr. Culley a proposal. Following review, Mr. Culley indicated that Party I would need to improve its proposal for Mast to consider a business combination with Party I. Party I indicated that it would not improve its proposal at this time.

On December 3, 2016, representatives of Party B submitted to representatives of Mast, including Roth, an updated proposal. Mr. Culley promptly communicated the updated proposal to the Mast Board.

On December 5, 2016, Mr. Culley visited Savara s offices in Austin, Texas. Both Savara and Mast continued the due diligence relating to the respective companies businesses and programs, and discussed the potential merger terms, process and timing.

Also on December 5, 2016 representatives of Parties C, E, G and Savara submitted to representatives of Mast, including Roth, updated proposals. In addition, Savara submitted a draft exclusivity agreement and a revised response to the draft merger agreement. Later on December 5, 2016, Party D re-submitted to representatives of Mast its

unsolicited proposal previously submitted on December 1, 2016. Each proposal was promptly communicated to the Mast Board.

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On December 6, 2016, the Mast Board met, with representatives of management, Roth and DLA present, to discuss the status of the bid process. After a representative from DLA described the Mast Board s fiduciary duties in connection with evaluating the various indications of interest, the Mast Board discussed the proposals. At this time, the Mast Board formed a strategic transactions committee (the Committee), comprised of four independent directors, Matthew Pauls, Howard C. Dittrich, Peter Greenleaf and David A. Ramsay, to be kept apprised of developments and consulted between full board meetings and make recommendations as appropriate to the full board for its consideration. After reviewing all proposals received to date and discussing each in detail with management and Roth and considering Mast s limited resources and the value of proceeding expeditiously to an outcome, the Mast Board determined to proceed in discussions with two of the possible counterparties whose indications of interest they believed yielded the best opportunities for Mast stockholders to maximize value, Savara and Party G, and directed Roth and Mast s management to ask those parties to submit improved proposals for a business combination and to present company overviews to the Mast Board. Following the meeting, representatives of Mast, including Roth, communicated to each party who had submitted proposals of the Mast Board s determination, and communicated with Savara and Party G regarding their presentation to the Mast Board.

On December 8, 2016, representatives of Mast, including Roth and DLA, and representatives of Savara, including Canaccord and Savara s legal counsel, WSGR, exchanged messages regarding open issues for a possible business combination.

On December 9, 2016, Party G and Savara each separately presented their company overview to the Mast Board. Also on December 9, 2016, representatives of Mast, including Roth and DLA, received an unsolicited updated proposal for a business combination from Party E. After Savara s and Party G s respective presentations and after a representative from DLA described the Mast Board s fiduciary duties in connection with evaluating the proposals, the Mast Board discussed each proposal with members of management and representatives of Roth.

On December 12, 2016, WSGR provided comments to the draft merger agreement to DLA. From December 12 to December 13, 2016, DLA reviewed and revised the draft merger agreement. On December 13, 2016, DLA provided comments to the draft merger agreement to WSGR.

On December 12, 2016, the Committee held a telephonic meeting. After discussing the proposals, the Committee directed management and Roth to negotiate the terms of an exclusivity agreement with Savara. Following negotiation, representatives of Mast and Savara agreed to an exclusivity period expiring December 22, 2016. Mast and Savara entered into the exclusivity agreement on December 13, 2016. Following entry into the exclusivity agreement, Mast made available additional diligence material to Savara in its virtual data room.

From December 13, 2016 until the execution of the definitive merger agreement on January 6, 2017, the companies and their respective advisors exchanged numerous drafts of the merger agreement and numerous messages and calls regarding due diligence matters and engaged in negotiations and discussions regarding the terms and conditions of the merger agreement. Significant areas of negotiation included the scope of representations and warranties and interim operating covenants, the conditions to closing, the treatment of Mast and Savara outstanding equity instruments, required net cash at closing, the definition of net cash, and the amount and triggers for the possible reimbursement of expenses and the payment of termination fees.

Concurrent with these discussions, representatives of management of each of the companies, WSGR, DLA and the companies respective other representatives continued to have numerous discussions by teleconference to review and discuss, among other things, due diligence, the terms of the merger agreement and the timeline for the potential transaction.

On December 15, 2016, the Savara Board held a meeting with representatives of management and WSGR present. Management provided an update on the status of negotiations on the merger agreement and the results of

the due diligence investigation of Mast. The Savara Board provided guidance on key merger agreement terms and authorized Savara management to continue negotiations and due diligence with Mast.

On December 16, 2016, management from Mast and Savara and representatives of DLA and WSGR, exchanged messages regarding open issues in the merger agreement, including treatment of Mast s outstanding debt obligations, closing cash expectations and treatment of interim capital raising transactions, if any, by Savara and Mast. Also on December 16, 2016, representatives from Mast and Savara held a due diligence teleconference during which they discussed, among other thing, diligence relating to the respective parties clinical programs, financial background and corporate structure.

On December 18, 2016, WSGR provided comments to the draft merger agreement to DLA. From December 18 to December 23, 2016, DLA reviewed and revised the draft merger agreement.

From December 18 to December 20, 2016, management from Mast and Savara and representatives of DLA and WSGR participated in a series of discussions via teleconference to discuss and negotiate, among other things, terms relating to closing cash balances and projected interim expenses, the amount of termination fees and triggers for payment of such fees, financial and accounting issues, and treatment of outstanding equity instruments.

On December 22, 2016, the Committee held a telephonic meeting, with members of management and representatives from Roth and DLA present. The Committee discussed, among other things, the progress of negotiations with Savara, open issues and the potential timeline to execution of a definitive agreement. Following the discussion, the Committee authorized management to extend exclusivity with Savara until December 28, 2016. On December 23, 2016, Mast and Savara entered into an amendment to the exclusivity agreement extending exclusivity until December 28, 2016.

On December 23, 2016, DLA provided comments to the draft merger agreement to WSGR. From December 23 to December 28, 2016, Savara, Mast and their respective representatives continued to negotiate the terms of a definitive merger agreement and conducted various due diligence conference calls regarding the parties respective businesses.

On December 29, 2016, the Committee held a telephonic meeting, with members of management and representatives from Roth and DLA present. The Committee discussed, among other things, the progress of negotiations with Savara, open issues and potential timeline to execution of a definitive agreement. Following the discussion, the Committee authorized management to extend exclusivity with Savara until January 6, 2017. The Committee directed management to inform Savara that the Committee would not consider any further extensions of the exclusivity period. Following the meeting, Mast and Savara entered into a second amendment to the exclusivity agreement extending exclusivity until January 6, 2017.

Also on December 29, 2016, management from Mast and Savara and representatives of DLA and WSGR participated in a series of discussions to negotiate remaining open issues in the merger agreement and conduct additional due diligence relating to the parties respective intellectual property.

Also on December 29, 2016, Mast announced an additional workforce reduction as part of its previously described strategic focus on AIR001 and plan to significantly reduce operating costs.

On January 2, 2017, representatives of DLA and WSGR participated in a series of discussions via teleconference to discuss and negotiate remaining open issues in the merger agreement. The parties agreed to review the open items with their respective clients and participate in a call the following day to discuss the open issues.

On January 3, 2017, management from Mast and Savara and representatives of DLA and WSGR participated in a series of discussions via teleconference to discuss and negotiate remaining open issues in the merger agreement.

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On January 4, 2017, the Committee held a telephonic meeting, with members of management and representatives from Roth and DLA present. Prior to the meeting, the Committee received a marked copy of the current draft merger agreement reflecting changes from the last draft reviewed, drafts of the lock-up and voting agreements, and written summaries from representatives of Mast of due diligence on Savara. The Committee discussed, among other things, the progress of negotiations with Savara, open issues and potential timeline to execution of a definitive agreement.

On January 4, 2017, the Savara Board held a telephonic meeting with management and representatives of Canaccord and WSGR present to discuss the terms of the proposed transaction and the negotiated merger agreement, a copy of which had been distributed in advance of the meeting, and the developments since the previous draft and meeting. Management provided an update to the Savara Board on the results of its due diligence investigation of Mast. Management and legal counsel updated the Board on the negotiations with Mast since the previous meeting and reviewed the material terms of the merger agreement. The Savara Board also considered the factors described below under The Merger Recommendation of the Board; Reasons for the Merger , as well as the process of SEC review and the various risks, such as non-consummation of the merger, arising in connection with the proposed transaction. Following discussion, the Board instructed management to finalize the transaction documents and enter into the merger agreement consistent with its instructions and subject to approval by the Savara Board of the final merger agreement.

On January 5, 2017, management from Mast and Savara and representatives of DLA and WSGR exchanged messages to discuss and finalize the draft merger agreement.

Later on January 5, 2017, the Committee held a telephonic meeting, with members of management and representatives from Roth and DLA present. Prior to the meeting, the Committee received a marked copy of the current draft merger agreement reflecting changes from the last draft reviewed. The Committee discussed, among other things, the progress of negotiations with Savara, open issues and potential timeline to execution of a definitive agreement.

On January 6, 2017, the Committee held a telephonic meeting to discuss the terms of the proposed transaction and the fully negotiated merger agreement, a marked copy of which reflecting changes since the last draft reviewed had been distributed in advance of the meeting, and the developments since the previous draft and meeting. Together with management and Mast s external financial and legal advisors, the Committee reviewed the results of Roth s financial analysis and the terms of the proposed transaction. Representatives of DLA updated the Committee on the negotiations with Savara since the previous Committee meeting and reviewed with the Committee the material terms of the merger agreement. Representatives of Roth reviewed with the Committee Roth s financial analysis of the transaction and merger consideration, and later rendered to the Mast Board an oral opinion, which was subsequently confirmed by delivery of a written opinion dated January 6, 2017 and based upon and subject to various assumptions made, procedures followed, matters considered, and qualifications and limitations upon the review undertaken in preparing its opinion, the merger consideration pursuant to the merger agreement was fair, from a financial point of view, to Mast s stockholders. For a detailed discussion of Roth s opinion, please refer to the section entitled The Merger Opinion of Roth Capital Partners and Mast s Financial Advisor beginning on page 104. The Committee also considered the factors described below under The Merger Recommendation of the Mast Board; Reasons for the Merger , as well as the process of SEC review and the various risks, such as non-consummation of the merger, arising in connection with the proposed transaction. Following extensive discussion of all of the foregoing by the Committee, the Committee unanimously recommended that the Mast Board (i) approve the merger agreement and consummation of the merger upon the terms and subject to the conditions set forth in the merger agreement, (ii) determine that the terms of the merger agreement and the transactions contemplated by the merger agreement, including the merger, are fair to, advisable and in the best interests of Mast and its stockholders, (iii) direct that the merger agreement be submitted to Mast s stockholders for adoption at the special meeting, (iv) approve the filing of a registration statement for the shares to be issued to Savara pursuant to the merger agreement, and (v) recommend that Mast s stockholders

adopt the merger agreement and approve the transactions contemplated by the merger

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agreement, including the merger. Following the Committee meeting, the Mast Board held a meeting at which the foregoing was presented and discussed. Following an extensive discussion of the foregoing, the Mast Board unanimously (A) approved the merger agreement and consummation of the merger upon the terms and subject to the conditions set forth in the merger agreement, (B) determined that the terms of the merger agreement and the transactions contemplated by the merger agreement, including the merger, are fair to, advisable and in the best interests of Mast and its stockholders, (C) directed that the merger agreement be submitted to Mast s stockholders for adoption at a special meeting, (D) approved the filing of a registration statement for the shares to be issued to Savara pursuant to the merger agreement, and (E) recommended that Mast s stockholders adopt the merger agreement and approve the transactions contemplated by the merger agreement, including the merger. The Mast Board then instructed management to finalize the transaction documents and enter into the merger agreement consistent with its instructions.

On January 6, 2017, the Savara Board executed a unanimous written consent which (i) approved the merger agreement and consummation of the merger upon the terms and subject to the conditions set forth in the merger agreement, (ii) determined that the terms of the merger agreement and the transactions contemplated by the merger agreement, including the merger, are fair to, advisable and in the best interests of Savara and its stockholders, (iii) directed that the merger agreement be submitted to Savara s stockholders for adoption, and (iv) recommended that Savara stockholders adopt the merger agreement and approve the transactions contemplated by the merger agreement, including the merger.

Later on January 6, 2017, each of Savara, Mast, and Merger Sub executed and delivered the merger agreement, effective as of January 6, 2017.

On January 7, 2017, Savara and Mast issued a joint press release announcing the execution of the merger agreement and the proposed transaction.

Mast Reasons for the Merger

The Mast Board considered the following factors in reaching its conclusion to approve and adopt the Merger Agreement and the transactions contemplated thereby and to recommend that the Mast stockholders approve the merger, adopt the Merger Agreement and approve the other transactions contemplated by the Merger Agreement, including the issuance of shares of Mast common stock in the merger, all of which the Mast Board viewed as supporting its decision to approve the business combination with Savara:

The Mast Board believes, based in part on the judgment, advice and analysis of Mast management with respect to the potential strategic, financial and operational benefits of the merger (which judgment, advice and analysis was informed in part on the business, technical, financial, accounting and legal due diligence investigation performed with respect to Savara), that:

the combined organization will be a clinical-stage company with a diversified development portfolio;

Savara has two product candidates in late stage clinical trials: AeroVanc and Molgradex;

the combined organization will be led by experienced senior management from Savara and a board of directors of five members designated by Savara and two members designated by Mast;

Savara has delivered voting agreements from its officers, directors and certain of its affiliated stockholders, representing approximately 30% of Savara s outstanding capital stock, in which each such individual or entity has agreed to vote in favor of the Merger Agreement and the related transactions; and

the combined company s ability to maintain Mast s listing on the NYSE MKT.

The Mast Board also reviewed with the management of Mast the current plans of Savara for developing its product candidates to confirm the likelihood that the combined organization would possess sufficient financial resources to allow the management team to focus initially on the continued

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development of its product candidates. The Mast Board also considered the possibility that the combined organization would be able to take advantage of the potential benefits resulting from the combination of Mast and Savara to raise additional funds in the future.

The Mast Board considered the opportunity as a result of the merger for Mast stockholders to participate in the potential value that may result from development of the Savara product candidate portfolio and the potential increase in value of the combined organization following the merger.

The Mast Board 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.

The Mast Board considered the analyses of Roth, and its opinion to the Mast Board as to the fairness to Mast, from a financial point of view and as of the date of such opinion, of the exchange ratio for the conversion of Savara capital stock into Mast common stock, as more fully described below under the caption The Merger Opinion of the Mast Financial Advisor.

The Mast Board also reviewed various factors impacting the financial condition, results of operations and prospects for Mast, including:

- the strategic alternatives of Mast to the merger, including potential transactions that could have resulted from discussions that Mast s management conducted with other potential merger partners;
- the consequences of the negative results from the vepoloxamer clinical trial, and the likelihood that the resulting circumstances for the company would not change for the benefit of the Mast stockholders in the foreseeable future on a stand-alone basis;
- Mast s prospects to raise the significant amount of funds it would require to continue to complete the required development and clinical trials for its AIR001 product candidate would not change for the benefit of the Mast stockholders in the foreseeable future on a stand-alone basis;
- the risks associated with, and the uncertain value, timing and costs to stockholders of, liquidating Mast or effecting a sale of all or some of its assets and thereafter distributing the proceeds;
- the risks of continuing to operate Mast on a stand-alone basis, including Mast s current financial situation, the need to rebuild the company s product candidate development programs, infrastructure and management to continue its operations; and

the risks associated with Mast s inability to maintain its NYSE MKT listing without completing the merger.

The Mast Board also reviewed the terms and conditions of the proposed Merger Agreement and associated transactions, as well as the safeguards and protective provisions included therein intended to mitigate risks, including:

the fact that immediately following the consummation of the merger, Savara stockholders, warrantholders and optionholders will own approximately 77% of the fully-diluted common stock of Mast, with Mast stockholders, optionholders and warrantholders, whose shares of Mast stock will remain outstanding after the merger, holding approximately 23% of the fully-diluted common stock of Mast;

the final exchange ratio used to establish the number of shares of Mast common stock to be issued in the merger is based upon Mast s capitalization numbers immediately prior to the consummation of the merger; however, the estimated exchange ratio contained in this proxy statement/prospectus/information statement is based upon Mast s capitalization numbers immediately prior to the date of this proxy statement/prospectus/information statement, and will be adjusted to account for the issuance of any additional shares of Mast common stock prior to the consummation of the merger and Mast s net cash at closing;

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the limited number and nature of the conditions to the Savara obligation to consummate the merger, including the absence of any financing contingency, and the limited risk of non-satisfaction of such conditions as well as the likelihood that the merger will be consummated on a timely basis;

the respective rights of, and limitations on, Mast and Savara under the Merger Agreement to consider certain unsolicited acquisition proposals under certain circumstances should Mast or Savara receive a superior proposal;

the reasonableness of the potential termination fee payable by Mast under certain circumstances of $1.8 million or the reasonableness of the potential termination fee payable by Savara under certain circumstances of $2.5 million;

the voting agreements, pursuant to which certain directors, officers and affiliated stockholders of Savara agreed, solely in their capacity as stockholders, to vote all of their shares of Savara capital stock in favor of adoption of the Merger Agreement; and

the belief that the terms of the Merger Agreement, including the parties representations, warranties and covenants, and the conditions to their respective obligations, are reasonable under the circumstances.

In the course of its deliberations, the Mast Board also considered a variety of risks and other countervailing factors related to entering into the merger, including:

the $1.8 million termination fee that may be payable to Savara upon the occurrence of certain events, and the potential effect of such termination fee or reimbursement of transaction expenses in deterring other potential acquirers from proposing an alternative transaction that may be more advantageous to Mast stockholders;

the risk that if Mast s debt at the closing exceeds its net cash at the closing, the allocation of 24% ownership to Mast stockholders, optionholders and warrantholders of the outstanding common stock of Mast immediately following the consummation of the merger will be reduced;

the substantial expenses to be incurred in connection with the merger;

the possible volatility, at least in the short term, of the trading price of the Mast common stock resulting from the merger announcement;

the risk that the merger might not be consummated in a timely manner or at all and the potential adverse effect of the public announcement of the merger or on the delay or failure to complete the merger on the reputation of Mast;

the risk to Mast s business, operations and financial results in the event that the merger is not consummated;

the strategic direction of the continuing entity following the completion of the merger, which will be determined by a board of directors, a majority of which will initially designated entirely by Savara;

the fact that the merger would give rise to substantial limitations on the utilization of Mast s NOLs; and

various other risks associated with the combined organization and the merger, including those described in the section entitled Risk Factors in this proxy statement/prospectus/information statement.

The foregoing information and factors considered by the Mast Board are not intended to be exhaustive but are believed to include all of the material factors considered by the Mast Board. In view of the wide variety of factors considered in connection with its evaluation of the merger and the complexity of these matters, the Mast Board did not find it useful to attempt, and did not attempt, to quantify, rank or otherwise assign relative weights

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to these factors. In considering the factors described above, individual members of the Mast Board may have given different weight to different factors. The Mast Board conducted an overall analysis of the factors described above, including thorough discussions with, and questioning of, the Mast management team and the legal and financial advisors of Mast, and considered the factors overall to be favorable to, and to support, its determination.

Savara Reasons for the Merger

In the course of reaching its decision to approve the merger, the Savara Board consulted with Savara s senior management, financial advisor and legal counsel, reviewed a significant amount of information and considered a number of factors, including, among others:

- that 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 including Savara s AeroVanc and Molgradex programs and Mast s AIR001 program;

- the expectation that the merger with Mast would be a more effective means to access capital through the public markets or other transactions compared to other alternatives considered, including an initial public offering which Savara had considered pursuing;

- the potential to provide its current stockholders with greater liquidity by owning stock in a public company;

- that the shares of Mast common stock issued to Savara stockholders will be registered pursuant to a Form S-4 registration statement by Mast and will become freely tradable (subject to the terms of applicable lock-up agreements) for Savara s stockholders who are not affiliates of Savara;

- the likelihood that the merger will be consummated on a timely basis;

- the terms and conditions of the Merger Agreement including the following:

  - the determination that an exchange ratio that is fixed and not subject to adjustment based on trading prices is appropriate to reflect the expected relative percentage ownership of Mast securityholders and Savara securityholders, in the judgment of the Savara Board;

  - the expectation that the merger should be treated as a reorganization for U.S. federal income tax purposes, with the result that the Savara stockholders generally will not recognize taxable gain or loss for U.S. federal income tax purposes;

the limited number and nature of the conditions of the obligation of Mast to consummate the merger and the limited risk of non-satisfaction of such conditions;

the rights of Savara under the Merger Agreement to consider certain unsolicited acquisition proposals under certain circumstances should Savara receive a superior proposal; and

the conclusion of Savara s board of directors that the potential termination fee of $1.8 million, or in some situations the reimbursement of certain transaction expenses incurred in connection with the merger of up to $250,000, payable by Mast to Savara and the circumstances when such fee may be payable, were reasonable.

The Savara Board also considered a number of uncertainties and risks in its deliberations concerning the merger and the other transactions contemplated by the Merger Agreement, including the following:

the possibility that the merger might not be completed and the potential adverse effect of the public announcement of the merger on the reputation of Savara and the ability of Savara to obtain financing in the future in the event the merger is not completed;

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the termination fee of $2.5 million or in some situations the reimbursement of certain transaction expenses incurred in connection with the merger of up to $250,000, payable by Savara to Mast upon the occurrence of certain events, and the potential effect of such termination fee in deterring other potential acquirers from proposing an alternative transaction that may be more advantageous to Savara s stockholders;

the limited cash resources of the combined organization expected to be available at the closing of the merger and the risk that the combined company would not be able to raise sufficient funds following the closing of the merger to continue clinical development of its development programs;

the risk that the merger might not be consummated in a timely manner or at all;

the transaction expenses and operating expenses to be incurred in connection with the merger and related administrative challenges associated with combining the companies;

the additional public company expenses and obligations that Savara s business will be subject to following the merger that it has not previously been subject to; and

various other risks associated with the combined organization and the merger, including the risks described in the section entitled Risk Factors in this proxy statement/prospectus/information statement.

The foregoing information and factors considered by the Savara Board are not intended to be exhaustive but are believed to include all of the material factors considered by the Savara Board. In view of the wide variety of factors considered in connection with its evaluation of the merger and the complexity of these matters, the Savara Board did not find it useful, and did not attempt, to quantify, rank or otherwise assign relative weights to these factors. In considering the factors described above, individual members of the Savara Board may have given different weight to different factors. The Savara Board conducted an overall analysis of the factors described above, including discussions with, and questioning of, Savara s management and Savara s legal and financial advisors, and considered the factors overall to be favorable to, and to support, its determination.

Opinion of Roth Capital Partners as Mast s Financial Advisor

The Mast Board retained Roth on October 24, 2016 to render an opinion as to the fairness to Mast, from a financial point of view, of merger consideration to be paid by Mast to the holders of shares of Savara common stock, or consideration, in the Merger pursuant to the Merger Agreement.

On January 6, 2017, Roth rendered its oral opinion to the Mast Board (which was subsequently confirmed in writing by delivery of Roth s written opinion dated the same date) to the effect that, based upon and subject to the assumptions, factors, qualifications and limitations set forth in the written opinion described herein, as of January 6, 2017, the consideration to be paid by Mast in the Merger was fair, from a financial point of view, to Mast.

Roth s opinion was prepared solely for the information of the Mast Board and only addressed the fairness, from a financial point of view, to Mast of the consideration to be paid by Mast in the Merger. Roth was not requested to opine as to, and Roth s opinion does not address, the relative merits of the Merger or any alternatives to the Merger, Mast s underlying decision to proceed with or effect the Merger, or any other aspect of the Merger. Roth s opinion does

not address the fairness of the Merger to the holders of any class of securities, creditors or other constituencies of Mast and is not a valuation of Mast or Savara or their respective assets or any class of their securities. Roth did not express an opinion about the fairness of the amount or nature of any compensation payable or to be paid to any of the officers, directors or employees, of Savara, whether or not relative to the Merger.

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The summary of Roth s opinion in this proxy statement is qualified in its entirety by reference to the full text of its written opinion, which is included as Annex B to this proxy statement solicitation and sets forth the procedures followed, assumptions made, qualifications and limitations on the review undertaken and other matters considered by Roth in preparing its opinion. Roth s opinion was prepared solely for the information of the Mast Board for its use in connection with its consideration of the Merger. Neither Roth s written opinion nor the summary of its opinion and the related analyses set forth in this prospectus/proxy statement are intended to be, and they do not constitute, advice or a recommendation to any stockholder as to how such stockholder should act or vote with respect to any matter relating to the Merger or any other matter.

The terms of the Merger, the consideration to be paid in the Merger, and the related transactions were determined through arm s length negotiations between Mast and Savara and were approved unanimously by the Mast Board. Roth did not determine the consideration to be paid by Mast in connection with the Merger. For purposes of its opinion, management of Mast advised Roth and, with the consent of the Mast Board, Roth assumed without independent verification that (i) the Net Cash Adjustment Amount specified in the Merger Agreement will be $2,000,000, (ii) the final exchange ratio determined in accordance with the Merger Agreement will be 46.92 shares of Mast common stock for each share of Savara common stock, and (iii) 1,018,747,837 shares of Mast common stock will be issued in the Merger. In its opinion, Roth expressly disclaimed any opinion as to (i) the reasonableness of these assumptions, (ii) the amount of the actual Net Cash Adjustment, (iii) the final exchange ratio determined pursuant to the Merger Agreement, or (iv) the actual number of shares of Mast common stock to be issued in the Merger.

In connection with rendering the opinion described above and performing its related financial analyses, Roth, among other things:

- reviewed a draft of the Merger Agreement dated January 5, 2017;
- reviewed certain information, including financial forecasts, relating to the business, earnings, cash flow, assets, liabilities and prospects of Mast and Savara that were furnished to Roth by Mast and Savara;
- conducted discussions with members of senior management and representatives of Mast and Savara concerning the matters described in the prior clause;
- reviewed the pro forma ownership of the combined entity resulting from the Merger;
- discussed the past and current operations and financial condition and the prospects of Mast and Savara with members of senior management of Mast and of Savara, respectively;
- reviewed the financial terms, to the extent publicly available, of certain acquisition and financing transactions that Roth deemed relevant; and

performed such other analyses and considered such other factors as Roth deemed appropriate for the purpose of rendering its opinion.

In arriving at its opinion, Roth relied upon and assumed, without independent verification, the accuracy and completeness of all information that was publicly available or was furnished, or otherwise made available to Roth or discussed with or reviewed by or for Roth, and further assumed that the financial information provided to Roth had been prepared on a reasonable basis in accordance with industry practice, and that management of Mast was not aware of any information or facts that would make any information provided to Roth incomplete or misleading.

With respect to the financial forecasts, estimates and other forward-looking information reviewed by Roth, Roth assumed that such information had been reasonably prepared based on assumptions reflecting the best currently available estimates and judgments of Mast s management as to the expected future combined results and financial condition of Mast and Savara after giving effect to the Merger. Roth was not engaged to assess the

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achievability of any such financial forecasts, estimates or forward-looking information or the assumptions on which they were based, and Roth expressed no opinion as to such information or assumptions. In addition, Roth did not assume any responsibility for, and did not perform, any appraisals or valuation of any specific assets or liabilities (fixed, contingent or other) of Mast or Savara, nor was Roth furnished or provided with any such appraisals or valuations. Without limiting the generality of the foregoing, Roth was not engaged to, and did not undertake, any independent analysis of any pending or threatened litigation, regulatory action, possible unasserted claims or other contingent liabilities, to which Mast, Savara or any of their respective affiliates is a party or may be subject, and at the direction of Mast and with its consent, Roth s opinion made no assumption concerning, and did not consider, the possible assertion of claims, outcomes or damages arising out of any such matters.

Roth relied upon and assumed, without independent verification, that the representations and warranties of all parties set forth in the Merger Agreement and all related documents and instruments that are referred to therein are true and correct, that each party will fully and timely perform all of the covenants and agreements required to be performed by such party, that the Merger will be consummated pursuant to the terms of the Merger Agreement, without amendment, and that all conditions to the consummation of the Merger will be satisfied without waiver thereof. Roth further assumed that the Merger Agreement was in all material respects identical to the draft of the Merger Agreement provided to Roth. Finally, Roth also assumed that all the necessary regulatory approvals and consents required for the Merger, including the approval of the stockholders of Mast and Savara, will be obtained in a manner that will not adversely affect Mast or Savara or the contemplated benefits of the Merger.

In connection with its opinion, Roth assumed and relied upon, without independent verification, the accuracy and completeness of all of the financial, legal, regulatory, tax, accounting and other information provided to, discussed with or reviewed by it. Roth s opinion does not address any legal, regulatory, tax or accounting issues. Roth s fairness opinion was approved by its fairness committee prior to delivering it to Mast.

Roth s opinion is necessarily based upon the information available to Roth and facts and circumstances as they existed and were subject to evaluation as of January 6, 2017, which is the date of the Roth opinion. Although events occurring after the date of the Roth opinion could materially affect the assumptions used in preparing the opinion, Roth does not have any obligation to update, revise or reaffirm its opinion and Roth expressly disclaims any responsibility to do so. Roth did not express any opinion as to the price at which shares of Mast s common stock may trade following announcement of the Merger or at any future time.

The consideration to be paid by Mast in the Merger was determined through arm s length negotiations between Mast and Savara and was approved by the Mast and Savara boards of directors. Roth did not provide advice to the Mast Board during these negotiations, the decision to enter into the Merger was solely that of the Mast Board. Roth s opinion and its presentation to the Mast Board was one of many factors taken into consideration by the Mast Board in deciding to approve, adopt and authorize the Merger Agreement. Consequently, the analyses as described herein should not be viewed as determinative of the opinion of the Mast Board with respect to the consideration to be paid by Mast in the Merger or of whether the Mast Board would have been willing to agree to different consideration.

The following is a summary of the material financial analyses performed by Roth in connection with the preparation of its fairness opinion, which opinion was rendered orally to the Mast Board (and subsequently confirmed in writing by delivery of Roth s written opinion dated the same date) on January 6, 2017. The preparation of analyses and a fairness opinion is a complex analytic process involving various determinations as to the most appropriate and relevant methods of financial analysis and the application of those methods to the particular circumstances and, therefore, such an opinion is not readily susceptible to summary description and this summary does not purport to be a complete description of the analyses performed by Roth or the delivery of Roth s opinion to the Mast Board.

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This summary includes information presented in tabular format. In order to fully understand the financial analyses presented by Roth, the tables must be read together with the text of each analysis summary and considered as a whole. The tables alone do not constitute a complete summary of the financial analyses. Considering any portion of such analyses and of the factors considered, without considering all analyses and factors, could create a misleading or incomplete view of the process underlying Roth s opinion.

In furnishing its opinion, Roth did not attempt to combine the analyses described herein into one composite valuation range, nor did Roth assign any quantitative weight to any of the analyses or the other factors considered. Furthermore, in arriving at its opinion, Roth did not attribute any particular weight to any analysis or factor considered by it, but rather made qualitative judgments as to the significance and relevance of each analysis and factor in light of one another. Accordingly, Roth has stated that it believes that its analyses must be considered as a whole and that considering any portion of its analyses, without considering all of the analyses, could create a misleading or incomplete view of the process underlying its opinion or the conclusions to be drawn therefrom.

In conducting the analysis as to the fairness to Mast, from a financial point of view, of the consideration to be paid by Mast pursuant to the terms of the Merger Agreement, Roth evaluated the stand-alone valuations of Mast and Savara. Roth then compared the pro-forma Mast ownership based on the Merger Agreement, with Mast s stand-alone valuation.

The results of the application by Roth of each of the valuation methodologies utilized in connection with its fairness opinion is summarized below.

Consideration to be Paid in the Merger

For purposes of its opinion, management of Mast advised Roth and, with the consent of the Mast Board, Roth assumed without independent verification that (i) the Net Cash Adjustment Amount specified in the Merger Agreement will be $2,000,000, (ii) the final exchange ratio determined in accordance with the Merger Agreement will be 46.92 shares of Mast common stock for each share of Savara common stock, and (iii) 1,018,747,837 shares of Mast common stock will be issued in the Merger. Based upon the closing price per share of Mast common stock on January 6, 2017 of $0.10, Roth observed that Mast was paying approximately $100.8 million to acquire Savara.

Based on the expected exchange ratio, Mast s management calculated the pro forma ownership of the combined company (NewCo) as follows:

Pro-Forma Ownership Structure[1]

	Stipulated Value[2]	Pro-Forma Shares Outstanding	Ownership Percentage
Mast	$ 29,634,184	262,519,659	20.5%
Savara	$ 115,000,000	1,018,747,837	79.5%
NewCo	$ 144,634,184	1,281,267,496	100.0%

Source: Merger Agreement

Notes: (1) &n