

CRITICAL THERAPEUTICS INC

Form 424B3

October 06, 2008

Table of Contents

**Filed pursuant to Rule 424(b)(3)
Registration No. 333-152442**

**SPECIAL MEETING OF STOCKHOLDERS
MERGER PROPOSED YOUR VOTE IS VERY IMPORTANT**

To the Stockholders of Critical Therapeutics, Inc.:

On May 1, 2008, Critical Therapeutics, Inc., which we refer to as Critical Therapeutics, and Cornerstone BioPharma Holdings, Inc., which we refer to as Cornerstone, entered into a merger agreement pursuant to which Neptune Acquisition Corp., a wholly owned subsidiary of Critical Therapeutics, which we refer to as the transitory subsidiary, will merge with and into Cornerstone, with Cornerstone continuing after the merger as the surviving company and a wholly owned subsidiary of Critical Therapeutics.

At the effective time of the merger, all outstanding shares of Cornerstone's common stock will be converted into and exchanged for shares of Critical Therapeutics' common stock and all outstanding options, whether vested or unvested, and all outstanding warrants to purchase Cornerstone's common stock will be assumed by Critical Therapeutics and become options and warrants to purchase Critical Therapeutics' common stock. Pursuant to the merger, Critical Therapeutics will issue to Cornerstone's stockholders, and will assume Cornerstone options and warrants that will represent, an aggregate of approximately 101.5 million shares of Critical Therapeutics' common stock, subject to adjustment as a result of a reverse stock split of Critical Therapeutics' common stock to occur in connection with the merger. Immediately following the effective time of the merger, Cornerstone's stockholders will own approximately 70%, and Critical Therapeutics' current stockholders will own approximately 30%, of Critical Therapeutics' common stock, assuming the exchange or conversion prior to the merger of the outstanding principal amount of a note issued by a wholly owned subsidiary of Cornerstone into shares of Cornerstone's common stock and after giving effect to shares issuable pursuant to Cornerstone's outstanding options and warrants, but without giving effect to any shares issuable pursuant to Critical Therapeutics' outstanding options and warrants. The exact exchange ratio per share of Cornerstone's common stock will be based in part on the number of shares of Cornerstone's common stock outstanding or issuable pursuant to outstanding options and warrants immediately prior to the effective time of the merger and will not be calculated until that time.

Shares of Critical Therapeutics' common stock are currently listed on The NASDAQ Capital Market under the symbol CRTX. After completion of the merger, Critical Therapeutics will be renamed Cornerstone Therapeutics Inc. and expects to continue to trade under the symbol CRTX on The NASDAQ Capital Market in connection with the listing of Critical Therapeutics' common stock pursuant to NASDAQ Marketplace Rule 4340. Following the merger, Critical Therapeutics will appoint new directors and executive officers designated by Cornerstone, and the headquarters of Critical Therapeutics will be located in Cary, North Carolina, at Cornerstone's headquarters. On September 29, 2008, the last practicable date before the printing of this proxy statement/prospectus, the closing price per share of Critical Therapeutics' common stock as reported on The NASDAQ Capital Market was \$0.17.

Critical Therapeutics is holding a special meeting of stockholders in order to obtain the stockholder approvals necessary to complete the merger. At the special meeting, which will be held at 10:00 a.m., local time, on October 31, 2008, at the offices of Wilmer Cutler Pickering Hale and Dorr LLP, located at 60 State Street, Boston, Massachusetts 02109, unless postponed or adjourned to a later date, Critical Therapeutics will ask its stockholders to approve the issuance of Critical Therapeutics' common stock pursuant to the merger agreement, approve an amendment to Critical

Therapeutics certificate of incorporation to effect a reverse stock split of Critical Therapeutics common stock, as described below, referred to as the reverse stock split, and approve an amendment to Critical Therapeutics certificate of incorporation to change the name of Critical Therapeutics to Cornerstone Therapeutics Inc. Upon the effectiveness of the amendment to Critical Therapeutics certificate of incorporation effecting the reverse stock split, the outstanding shares of Critical Therapeutics common stock will be reclassified and combined into a lesser number of shares to be determined by Critical Therapeutics board of directors prior to the effective time of such amendment and publicly announced by Critical Therapeutics.

After careful consideration, Critical Therapeutics board of directors has unanimously approved the merger agreement and the proposals referred to above, and has determined that they are advisable, fair to and in the best interests of Critical Therapeutics stockholders. **Accordingly, Critical Therapeutics board of directors unanimously recommends that stockholders vote FOR the issuance of Critical Therapeutics common stock pursuant to the merger agreement, FOR the amendment to Critical Therapeutics certificate of incorporation to effect the reverse stock split and FOR the amendment to Critical Therapeutics**

Table of Contents

certificate of incorporation to change the name of Critical Therapeutics to Cornerstone Therapeutics Inc.

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

Your vote is important. Whether or not you expect to attend the special meeting in person, please complete, date, sign and promptly return the accompanying proxy card in the enclosed postage paid envelope to ensure that your shares will be represented and voted at the special meeting.

Critical Therapeutics is excited about the opportunities the merger brings to its stockholders, and we thank you for your consideration and continued support.

Yours sincerely,

Trevor Phillips, Ph.D.
President and Chief Executive Officer

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved the merger described in this proxy statement/prospectus or the Critical Therapeutics common stock to be issued in connection with the merger or determined if this proxy statement/prospectus is accurate or adequate. Any representation to the contrary is a criminal offense.

This proxy statement/prospectus is dated October 3, 2008, and is first being mailed to stockholders on or about October 6, 2008.

Table of Contents

**CRITICAL THERAPEUTICS, INC.
60 WESTVIEW STREET
LEXINGTON, MASSACHUSETTS 02421**

**NOTICE OF SPECIAL MEETING OF STOCKHOLDERS
To Be Held On October 31, 2008**

To the Stockholders of Critical Therapeutics, Inc.:

A special meeting of stockholders of Critical Therapeutics, Inc. will be held at 10:00 a.m., local time, on October 31, 2008, at the offices of Wilmer Cutler Pickering Hale and Dorr LLP, located at 60 State Street, Boston, Massachusetts 02109, to consider and act upon the following matters:

1. To approve the issuance of Critical Therapeutics common stock pursuant to the Agreement and Plan of Merger, dated as of May 1, 2008, by and among Critical Therapeutics, Neptune Acquisition Corp., a wholly owned subsidiary of Critical Therapeutics, and Cornerstone BioPharma Holdings, Inc.
2. To approve an amendment to Critical Therapeutics certificate of incorporation to effect a reverse stock split of Critical Therapeutics common stock.
3. To approve an amendment to Critical Therapeutics certificate of incorporation to change the name of Critical Therapeutics to Cornerstone Therapeutics Inc.
4. To consider and vote upon an adjournment of the special meeting, if necessary, if a quorum is present, to solicit additional proxies if there are not sufficient votes in favor of Proposals 1, 2 and 3.

Stockholders also will consider and act on any other matters as may properly come before the special meeting or any adjournment or postponement thereof, including any procedural matters incident to the conduct of the special meeting.

September 29, 2008 is the record date for the determination of stockholders entitled to notice of, and to vote at, the special meeting and any adjournment or postponement thereof. Only holders of record of shares of Critical Therapeutics common stock at the close of business on the record date are entitled to notice of, and to vote at, the special meeting. At the close of business on the record date, Critical Therapeutics had 43,332,598 shares of common stock outstanding and entitled to vote at the special meeting.

Your vote is important. The affirmative vote of the holders of a majority of the shares of Critical Therapeutics common stock present in person or represented by proxy and voting on such matter at the special meeting is required for approval of Proposal 1 and Proposal 4 above. The affirmative vote of holders of a majority of the outstanding shares of Critical Therapeutics common stock as of the record date for the special meeting is required for approval of Proposal 2 and Proposal 3 above.

Whether or not you plan to attend the special meeting in person, please complete, date, sign and promptly return the accompanying proxy card in the enclosed postage paid envelope to ensure that your shares will be represented and voted at the special meeting. If you date, sign and return your proxy card without indicating

how you wish to vote, your proxy will be counted as a vote in favor of Proposals 1 through 4. If you fail either to return your proxy card or vote in person at the special meeting, your shares will not be counted for purposes of determining whether a quorum is present at the special

Table of Contents

meeting and will have the same effect as a vote against Proposal 2 and Proposal 3. If you attend the special meeting, you may, upon your written request, withdraw your proxy and vote in person.

By Order of the Board of Directors of
Critical Therapeutics, Inc.

Scott B. Townsend, Esq.
Secretary

October 3, 2008
Lexington, Massachusetts

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

Table of Contents

REFERENCES TO ADDITIONAL INFORMATION

This proxy statement/prospectus forms a part of a registration statement on Form S-4 (Registration No. 333-152442) filed by Critical Therapeutics, Inc., or Critical Therapeutics, with the U.S. Securities and Exchange Commission, or SEC. It constitutes a prospectus of Critical Therapeutics under Section 5 of the Securities Act of 1933, as amended, or the Securities Act, and the rules thereunder, with respect to the shares of Critical Therapeutics common stock to be issued to holders of common stock of Cornerstone BioPharma Holdings, Inc., or Cornerstone, in the merger. In addition, it constitutes a proxy statement under Section 14(a) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and the rules thereunder, and a notice of meeting with respect to the special meeting of stockholders at which Critical Therapeutics stockholders will consider and vote on the proposals to approve the issuance of Critical Therapeutics common stock issuable to the holders of Cornerstone's common stock pursuant to the merger agreement described in this proxy statement/prospectus, an amendment to Critical Therapeutics certificate of incorporation to effect a reverse stock split of Critical Therapeutics common stock and an amendment to Critical Therapeutics certificate of incorporation to change the name of Critical Therapeutics to Cornerstone Therapeutics Inc.

This proxy statement/prospectus incorporates important business and financial information about Critical Therapeutics that is not included in or delivered with this proxy statement/prospectus. This information is available to you without charge upon your written or oral request. You can obtain these documents, which are incorporated by reference in this proxy statement/prospectus, by requesting them in writing or by telephone at the following address and telephone number:

CRITICAL THERAPEUTICS, INC.

Thomas P. Kelly
Chief Financial Officer
60 Westview Street
Lexington, Massachusetts 02421
Tel: (781) 402-5700

IF YOU WOULD LIKE TO REQUEST DOCUMENTS, PLEASE DO SO BY OCTOBER 17, 2008 IN ORDER TO RECEIVE THEM BEFORE THE SPECIAL MEETING.

See Where You Can Find More Information beginning on page 352.

NOTE REGARDING TRADEMARKS

Zyflo® and Zyflo CR® are registered trademarks of Critical Therapeutics.

Cornerstone BioPharma, Inc.®, AlleRx®, Balacet® and Deconsal® are registered trademarks, and Aristos Pharmaceuticals™, Cornerstone Therapeutics Inc.™, HyoMax™ and RespiVent™ are trademarks, of Cornerstone. Spectracef® is a registered trademark of Meiji Seika Kaisha, Ltd.

The other trademarks, trade names and service marks appearing in this proxy statement/prospectus are the property of their respective holders.

Table of Contents**TABLE OF CONTENTS**

<u>QUESTIONS AND ANSWERS ABOUT THE SPECIAL MEETING AND THE MERGER</u>	v
<u>SUMMARY</u>	1
<u>The Companies</u>	1
<u>Summary of the Merger</u>	3
<u>Reasons for the Merger</u>	3
<u>Opinion of Critical Therapeutics' Financial Advisor</u>	3
<u>Overview of the Merger Agreement</u>	4
<u>Stockholder Agreements and Noteholder Agreement</u>	6
<u>Management Following the Merger</u>	7
<u>The Board of Directors Following the Merger</u>	7
<u>Interests of Critical Therapeutics' Directors and Executive Officers</u>	7
<u>Interests of Cornerstone's Directors and Executive Officers</u>	9
<u>Stock Options and Warrants</u>	10
<u>Material U.S. Federal Income Tax Consequences of the Merger</u>	11
<u>Risk Factors</u>	11
<u>Regulatory Approvals</u>	12
<u>Anticipated Accounting Treatment</u>	12
<u>Appraisal Rights</u>	12
<u>Comparison of Stockholder Rights</u>	12
<u>Legal Proceedings</u>	12
<u>SELECTED HISTORICAL AND PRO FORMA COMBINED FINANCIAL DATA</u>	13
<u>Selected Historical Consolidated Financial Data of Critical Therapeutics</u>	14
<u>Selected Historical Consolidated Financial Data of Cornerstone</u>	16
<u>Selected Unaudited Pro Forma Condensed Combined Financial Data of Critical Therapeutics and Cornerstone</u>	18
<u>Comparative Historical and Unaudited Pro Forma Per Share Data</u>	20
<u>MARKET PRICE AND DIVIDEND INFORMATION</u>	22
<u>RISK FACTORS</u>	24
<u>Risks Related to the Merger</u>	24
<u>Risks Related to Critical Therapeutics</u>	28
<u>Risks Related to Cornerstone</u>	59
<u>Risks Related to the Combined Company</u>	86
<u>FORWARD-LOOKING STATEMENTS</u>	91
<u>THE SPECIAL MEETING OF CRITICAL THERAPEUTICS' STOCKHOLDERS</u>	92
<u>Date, Time and Place</u>	92
<u>Purposes of the Special Meeting</u>	92
<u>Recommendation of Critical Therapeutics' Board of Directors</u>	92
<u>Record Date and Voting Power</u>	93
<u>Voting and Revocation of Proxies</u>	93
<u>Quorum and Required Vote</u>	94
<u>Solicitation of Proxies</u>	95
<u>Other Matters</u>	95
<u>THE MERGER</u>	96
<u>Background of the Merger</u>	96

Table of Contents

<u>Financial Projections</u>	106
<u>Reasons for the Merger</u>	108
<u>Opinion of Critical Therapeutics Financial Advisor</u>	113
<u>Interests of Critical Therapeutics Directors and Executive Officers in the Merger</u>	119
<u>Interests of Cornerstone s Directors and Executive Officers in the Merger</u>	125
<u>Cornerstone Stock Options and Warrants</u>	128
<u>Form of the Merger</u>	129
<u>Merger Consideration</u>	129
<u>Effective Time of the Merger</u>	130
<u>Regulatory Approvals</u>	130
<u>Material U.S. Federal Income Tax Consequences of the Merger</u>	130
<u>NASDAQ Listing</u>	133
<u>Anticipated Accounting Treatment</u>	134
<u>Appraisal Rights</u>	134
<u>THE MERGER AGREEMENT</u>	137
<u>General</u>	137
<u>Merger Consideration</u>	137
<u>Amendments to Critical Therapeutics Certificate of Incorporation</u>	137
<u>Conditions to the Completion of the Merger</u>	138
<u>No Solicitation</u>	140
<u>Change in Recommendation</u>	141
<u>Meeting of Critical Therapeutics Stockholders</u>	141
<u>Covenants; Conduct of Business Pending the Merger</u>	142
<u>Other Agreements</u>	146
<u>Termination</u>	147
<u>Termination Fee</u>	148
<u>Representations and Warranties</u>	149
<u>Amendment</u>	150
<u>Cornerstone Operating Company Guarantee</u>	150
<u>AGREEMENTS RELATED TO THE MERGER</u>	151
<u>Cornerstone Stockholder Agreements</u>	151
<u>Cornerstone Noteholder Agreement</u>	151
<u>Critical Therapeutics Stockholder Agreements</u>	151
<u>MATTERS BEING SUBMITTED TO A VOTE OF CRITICAL THERAPEUTICS STOCKHOLDERS</u>	152
<u>Proposal 1: Approval of the Issuance of Common Stock in the Merger</u>	152
<u>Proposal 2: Approval of the Reverse Stock Split</u>	152
<u>Proposal 3: Approval of Name Change</u>	159
<u>Proposal 4: Approval of Possible Adjournment of the Special Meeting</u>	159
<u>CRITICAL THERAPEUTICS BUSINESS</u>	161
<u>Overview</u>	161
<u>Proposed Merger with Cornerstone</u>	162
<u>Critical Therapeutics Product Pipeline</u>	162
<u>Zileuton</u>	162
<u>Critical Care: The Inflammatory Response</u>	168

Table of Contents

<u>Collaborations</u>	170
<u>Development</u>	173
<u>Sales and Marketing</u>	173
<u>Manufacturing and Supply</u>	174
<u>Distribution Network</u>	177
<u>License and Royalty Agreements</u>	178
<u>Proprietary Rights</u>	182
<u>Regulatory Matters</u>	183
<u>Competition</u>	187
<u>Properties</u>	188
<u>Employees</u>	189
<u>Legal Proceedings</u>	189
<u>Access to SEC Filings</u>	189
<u>CORNERSTONE S BUSINESS</u>	190
<u>Overview</u>	190
<u>Strategy</u>	191
<u>Marketed Products</u>	192
<u>Other Products</u>	196
<u>Product Development Pipeline</u>	199
<u>Sales and Marketing: Co-promotion Agreements</u>	203
<u>Trade, Distribution and Reimbursement</u>	205
<u>Manufacturing</u>	206
<u>Intellectual Property</u>	209
<u>License and Collaboration Agreements</u>	211
<u>Competition</u>	221
<u>Regulatory Matters</u>	222
<u>Pharmaceutical Pricing and Reimbursement</u>	230
<u>Fraud and Abuse Regulation</u>	231
<u>Corporate Organization</u>	232
<u>Employees</u>	232
<u>Properties</u>	232
<u>Legal Proceedings</u>	232
<u>CRITICAL THERAPEUTICS MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS</u>	235
<u>Overview</u>	235
<u>Financial Operations Overview</u>	236
<u>Critical Accounting Policies</u>	240
<u>Results of Operations</u>	246
<u>Liquidity and Capital Resources</u>	259
<u>Effects of Inflation</u>	263
<u>Recent Accounting Pronouncements</u>	264
<u>QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT CRITICAL THERAPEUTICS MARKET RISK</u>	266
<u>CORNERSTONE S MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS</u>	267
<u>Overview</u>	267

Table of Contents

<u>Financial Operations Overview</u>	270
<u>Critical Accounting Estimates</u>	275
<u>Results of Operations</u>	279
<u>Liquidity and Capital Resources</u>	285
<u>Off-Balance Sheet Arrangements</u>	291
<u>Effects of Inflation</u>	291
<u>Recent Accounting Pronouncements</u>	291
<u>QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT CORNERSTONE S MARKET RISK</u>	293
<u>MANAGEMENT FOLLOWING THE MERGER</u>	294
<u>Executive Officers and Directors</u>	294
<u>The Board of Directors</u>	297
<u>Certain Relationships and Related Transactions, and Director Independence</u>	298
<u>Executive Compensation and Other Information</u>	300
<u>Compensation Committee Interlocks and Insider Participation</u>	326
<u>UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION</u>	327
<u>DESCRIPTION OF CRITICAL THERAPEUTICS CAPITAL STOCK</u>	336
<u>Authorized Capital Stock</u>	336
<u>Common Stock</u>	336
<u>Preferred Stock</u>	337
<u>Delaware Law and Certificate of Incorporation and Bylaw Provisions</u>	337
<u>COMPARISON OF RIGHTS OF HOLDERS OF CRITICAL THERAPEUTICS STOCK AND</u>	
<u>CORNERSTONE S COMMON STOCK</u>	339
<u>PRINCIPAL STOCKHOLDERS OF CRITICAL THERAPEUTICS</u>	344
<u>PRINCIPAL STOCKHOLDERS OF CORNERSTONE</u>	347
<u>PRINCIPAL STOCKHOLDERS OF COMBINED COMPANY</u>	349
<u>LEGAL MATTERS</u>	352
<u>EXPERTS</u>	352
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	352
<u>INDEX TO CRITICAL THERAPEUTICS CONSOLIDATED FINANCIAL STATEMENTS</u>	F-1
<u>INDEX TO CORNERSTONE S CONSOLIDATED FINANCIAL STATEMENTS</u>	F-52

ANNEXES

<u>AGREEMENT AND PLAN OF MERGER</u>	A-1
<u>CERTIFICATE OF AMENDMENT TO CRITICAL THERAPEUTICS CERTIFICATE OF</u>	
<u>INCORPORATION (REVERSE STOCK SPLIT)</u>	B-1
<u>CERTIFICATE OF AMENDMENT TO CRITICAL THERAPEUTICS CERTIFICATE OF</u>	
<u>INCORPORATION (NAME CHANGE)</u>	C-1
<u>OPINION OF LAZARD FRÈRES & CO. LLC</u>	D-1
<u>SECTION 262 OF THE DELAWARE GENERAL CORPORATION LAW</u>	E-1

Table of Contents

QUESTIONS AND ANSWERS ABOUT THE SPECIAL MEETING AND THE MERGER

Except as specifically indicated, the following information and all other information contained in this proxy statement/prospectus does not give effect to the reverse stock split described in Proposal 2.

The following section provides answers to frequently asked questions about the special meeting of stockholders and the merger. This section, however, only provides summary information. These questions and answers may not address all issues that may be important to you as a stockholder. For a more complete response to these questions and for additional information, please refer to the cross-referenced pages below. You should carefully read this entire proxy statement/prospectus, including each of the annexes.

Q: What is the merger?

A: Critical Therapeutics and Cornerstone have entered into an Agreement and Plan of Merger, dated as of May 1, 2008, or the merger agreement, that contains the terms and conditions of the proposed business combination of Critical Therapeutics and Cornerstone. Under the merger agreement, Cornerstone and Neptune Acquisition Corp., a wholly owned subsidiary of Critical Therapeutics, or the transitory subsidiary, will merge, with Cornerstone surviving as a wholly owned subsidiary of Critical Therapeutics. This transaction is referred to as the merger.

Q: How many shares of Critical Therapeutics common stock will be issued or become issuable pursuant to the merger?

A: Pursuant to the merger, Critical Therapeutics will issue to Cornerstone's stockholders, and will assume Cornerstone options and warrants that will represent, an aggregate of approximately 101.5 million shares of Critical Therapeutics common stock, subject to adjustment as a result of a reverse stock split of Critical Therapeutics common stock to occur in connection with the merger.

Q: What percentage of Critical Therapeutics common stock will this represent?

A: Immediately following the effective time of the merger, Cornerstone's stockholders will own approximately 70%, and Critical Therapeutics' current stockholders will own approximately 30%, of Critical Therapeutics common stock, assuming the exchange or conversion prior to the merger of the outstanding principal amount of a note issued by a wholly owned subsidiary of Cornerstone into shares of Cornerstone's common stock and after giving effect to shares issuable pursuant to Cornerstone's outstanding options and warrants, but without giving effect to any shares issuable pursuant to Critical Therapeutics' outstanding options and warrants.

Q: What is the reverse stock split and why is it necessary?

A: Immediately prior to the effective time of the merger, the outstanding shares of Critical Therapeutics common stock will be reclassified and combined into a lesser number of shares to be determined by Critical Therapeutics board of directors prior to the effective time and publicly announced by Critical Therapeutics. Because The NASDAQ Capital Market's initial listing standards require Critical Therapeutics to have, among other things, a \$4.00 per share minimum bid price, the reverse stock split is necessary to consummate the merger.

Q: What will happen to Critical Therapeutics if, for any reason, the merger with Cornerstone does not close?

A:

Critical Therapeutics has invested significant time and incurred, and expects to continue to incur, significant expenses related to the proposed merger with Cornerstone. In the event the merger does not close, Critical Therapeutics will have a limited ability to continue its current operations without obtaining additional financing. Although Critical Therapeutics board of directors may elect to, among other things, attempt to complete another strategic transaction if the merger with Cornerstone does not close, Critical Therapeutics board of directors may instead divest all or a portion of Critical Therapeutics business or take steps necessary to liquidate or dissolve Critical Therapeutics business and assets if a viable alternative strategic transaction is not available.

Table of Contents

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

A: You are receiving this proxy statement/prospectus because you have been identified as a stockholder of Critical Therapeutics as of the record date, and thus you are entitled to vote at Critical Therapeutics' special meeting. This document serves as both a proxy statement used to solicit proxies for the special meeting and as a prospectus used to offer shares of Critical Therapeutics' common stock in exchange for shares of Cornerstone's common stock pursuant to the terms of the merger agreement. This document contains important information about the merger and the special meeting of Critical Therapeutics, and you should read it carefully.

Q: Who is soliciting my proxy?

A: This proxy is being solicited by Critical Therapeutics' board of directors.

Q: What stockholder approvals are required to consummate the merger?

A: To consummate the merger, Critical Therapeutics' stockholders must approve:

the issuance of shares of Critical Therapeutics' common stock in the merger, which requires the affirmative vote of the holders of a majority of the shares of Critical Therapeutics' common stock present in person or represented by proxy and voting on such matter at the special meeting;

the amendment to Critical Therapeutics' certificate of incorporation to effect the reverse stock split of Critical Therapeutics' common stock, which requires the affirmative vote of holders of a majority of the outstanding shares of Critical Therapeutics' common stock as of the record date for the special meeting; and

the amendment to Critical Therapeutics' certificate of incorporation to change the name of Critical Therapeutics to Cornerstone Therapeutics Inc., which requires the affirmative vote of the holders of a majority of the outstanding shares of Critical Therapeutics' common stock as of the record date for the special meeting.

In addition, Cornerstone's stockholders must adopt the merger agreement, which requires the affirmative vote of holders of a majority of the outstanding shares of Cornerstone's common stock. On May 2, 2008, holders of a majority of Cornerstone's outstanding shares of common stock adopted the merger agreement pursuant to written consents in lieu of a meeting.

Q: How does Critical Therapeutics' board of directors recommend that Critical Therapeutics' stockholders vote?

A: After careful consideration, Critical Therapeutics' board of directors has unanimously approved the merger agreement and each of the proposals described in this proxy statement/prospectus that the stockholders of Critical Therapeutics are being asked to consider, and has determined that they are advisable, fair to and in the best interests of Critical Therapeutics' stockholders. Accordingly, Critical Therapeutics' board of directors unanimously recommends that Critical Therapeutics' stockholders vote FOR each such proposal.

Q: How did Cornerstone's board of directors recommend that Cornerstone's stockholders vote?

A: After careful consideration, Cornerstone's board of directors unanimously recommended that Cornerstone's stockholders vote to adopt the merger agreement.

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

A: Critical Therapeutics and Cornerstone anticipate that the consummation of the merger will occur as promptly as practicable after the special meeting and following satisfaction or waiver of all closing conditions. However, the exact timing of the consummation of the merger is not yet known.

vi

Table of Contents

Q: What do I need to do now?

A: You are urged to read this proxy statement/prospectus carefully, including each of the annexes, and to consider how the merger affects you. If your shares are registered directly in your name, you may vote in one of four different ways. First, you can provide your proxy instructions over the Internet at the web site of Critical Therapeutics tabulator, BNY Mellon Shareowner Services, at <http://www.proxyvoting.com/crtx>, by following the instructions you will find there. Second, you can provide your proxy instructions by telephone at (866) 540-5760 toll-free from the United States or Canada, by following the instructions. Third, you can complete, date and sign the enclosed proxy card and mail it in the enclosed postage-paid envelope to BNY Mellon Shareowner Services. Alternatively, you can deliver your completed proxy card in person or vote by completing a ballot in person at the special meeting.

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

A: The failure to return your proxy card or otherwise provide proxy instructions will have the same effect as voting against Proposal 2 and Proposal 3, and your shares will not be counted for purposes of determining whether a quorum is present at the special meeting.

Q: May I vote in person?

A: If you are a stockholder of Critical Therapeutics and your shares of Critical Therapeutics common stock are registered directly in your name with Critical Therapeutics transfer agent, you are considered, with respect to those shares, the stockholder of record, and the proxy materials and proxy card are being sent directly to you by Critical Therapeutics. If you are a Critical Therapeutics stockholder of record, you may attend the special meeting to be held on October 31, 2008 and vote your shares in person, rather than signing and returning your proxy.

If your shares of Critical Therapeutics common stock are held by a bank, broker or other nominee, you are considered the beneficial owner of shares held in street name, and the proxy materials are being forwarded to you together with a voting instruction card. As the beneficial owner, you are also invited to attend the special meeting. Since a beneficial owner is not the stockholder of record, you may not vote these shares in person at the special meeting unless you obtain a proxy from your broker issued in your name giving you the right to vote the shares at the special meeting.

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

A: Your broker will not be able to vote your shares of Critical Therapeutics common stock without specific instructions from you. You should instruct your broker to vote your shares, following the procedure provided by your broker.

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

A: Any Critical Therapeutics stockholder of record voting by proxy, other than those Critical Therapeutics stockholders who have executed a voting agreement and irrevocable proxy, has the right to revoke the proxy at any time before the polls close at the special meeting by sending a written notice stating that it would like to revoke its proxy to the Secretary of Critical Therapeutics, by voting again over the Internet or by telephone, by providing a duly executed proxy card bearing a later date than the proxy being revoked or by attending the special meeting and voting in person. Attendance alone at the special meeting will not revoke a proxy. If a

stockholder of Critical Therapeutics has instructed a broker to vote its shares of Critical Therapeutics common stock that are held in street name, the stockholder must follow directions received from its broker to change those instructions.

Q: Should Cornerstone s and Critical Therapeutics stockholders send in their stock certificates now?

A: No. After the merger is consummated, Cornerstone s stockholders will receive written instructions from the exchange agent for exchanging their certificates representing shares of Cornerstone capital stock for certificates representing shares of Critical Therapeutics common stock. Cornerstone s stockholders will also receive a cash payment for any fractional shares.

Table of Contents

In addition, Critical Therapeutics stockholders will receive written instructions, as applicable, from Critical Therapeutics transfer agent for exchanging their certificates representing shares of Critical Therapeutics common stock for new certificates giving effect to the reverse stock split. Critical Therapeutics stockholders will also receive a cash payment for any fractional shares.

Q: Who is paying for this proxy solicitation?

A: Critical Therapeutics will bear the cost of soliciting proxies, including the printing, mailing and filing of this proxy statement/prospectus, the proxy card and any additional information furnished to Critical Therapeutics stockholders. Critical Therapeutics has engaged Morrow & Co., LLC, a proxy solicitation firm, to solicit proxies from Critical Therapeutics stockholders. Arrangements will also be made with banks, brokers, nominees, custodians and fiduciaries who are record holders of Critical Therapeutics common stock for the forwarding of solicitation materials to the beneficial owners of Critical Therapeutics common stock. Critical Therapeutics will reimburse these banks, brokers, nominees, custodians and fiduciaries for the reasonable out-of-pocket expenses they incur in connection with the forwarding of solicitation materials.

Q: Who can provide me with additional information and help answer my questions?

A: If you would like additional copies, without charge, of this proxy statement/prospectus or if you have questions about the merger and the other proposals being considered at the special meeting, including the procedures for voting your shares, you should contact Morrow & Co., LLC, Critical Therapeutics proxy solicitor, by telephone at 1-800-607-0088 or by email at crtx.info@morrowco.com.

Table of Contents

SUMMARY

*This summary highlights selected information from this proxy statement/prospectus and may not contain all of the information that is important to you. To better understand the merger and the other proposals being considered at the special meeting, you should read this entire proxy statement/prospectus carefully, including the materials attached as annexes, as well as other documents referred to or incorporated by reference herein. See *Where You Can Find More Information* beginning on page 352 of this proxy statement/prospectus. Page references are included in parentheses to direct you to a more detailed description of the topics presented in this summary.*

The Companies

Critical Therapeutics, Inc.

60 Westview Street
Lexington, Massachusetts 02421
(781) 402-5700

Critical Therapeutics is a biopharmaceutical company focused on developing and commercializing products for respiratory and inflammatory diseases. Critical Therapeutics owns worldwide rights to two marketed products: ZYFLO CR[®] (zileuton) extended-release tablets, or ZYFLO CR, which the U.S. Food and Drug Administration, or FDA, approved in May 2007, and ZYFLO[®] (zileuton tablets), or ZYFLO, which the FDA approved in 1996, for the prevention and chronic treatment of asthma in adults 12 years of age or older. Critical Therapeutics also is developing an injectable formulation of zileuton, or zileuton injection, for use in the hospital emergency department for the treatment of acute asthma attacks. In June 2008, Critical Therapeutics announced the results from its Phase II clinical trial with zileuton injection in patients with chronic, stable asthma. In addition, Critical Therapeutics is developing other product candidates directed toward the body's inflammatory response. Critical Therapeutics has conducted preclinical work in its alpha-7 nicotinic acetylcholine receptor program, or alpha-7 program, for the treatment of severe acute inflammatory disease. Critical Therapeutics also has collaboration agreements with third parties for the development of monoclonal antibodies directed toward a cytokine called high mobility group box protein 1, or HMGB1, and a diagnostic directed toward measuring HMGB1 in the bloodstream. Both of these programs are in preclinical stages of development.

Cornerstone BioPharma Holdings, Inc.

2000 Regency Parkway, Suite 255
Cary, North Carolina 27518
(888) 466-6505

Cornerstone is a specialty pharmaceutical company focused on acquiring, developing and commercializing prescription products for the respiratory market. Cornerstone currently promotes four marketed products in the United States to respiratory-focused physicians and key retail pharmacies with its approximately 50 person specialty sales force. Cornerstone also generates revenue from the sale of seven marketed product lines that include products that it does not promote.

Some of Cornerstone's marketed products are approved by the FDA while others are marketed in the United States without an FDA-approved marketing application because they have been considered by Cornerstone to be identical, related or similar to products that have existed in the market without an FDA-approved marketing application, and which were thought not to require pre-market review and approval, or which were approved only on the basis of safety, at the time they entered the marketplace, subject to FDA enforcement policies established in connection with

the FDA's Drug Efficacy Study Implementation, or DESI, program. For a more complete discussion regarding FDA drug approval requirements, please see the section entitled "Risks Related to Cornerstone" Some of Cornerstone's specialty pharmaceutical products are now being marketed without approved NDAs or ANDAs beginning on page 70 of this proxy statement/prospectus and the section entitled "Cornerstone's Business - Regulatory Matters" beginning on page 222 of this proxy statement/prospectus.

Table of Contents

Cornerstone derives revenues from the following products as of September 15, 2008:

Product	Promoted by Cornerstone	Approved by FDA
ALLERX 10 Dose Pack and ALLERX 30 Dose Pack	Yes	No
ALLERX Dose Pack DF and ALLERX Dose Pack DF 30	Yes	No
ALLERX Dose Pack PE and ALLERX Dose Pack PE 30	Yes	No
ALLERX Suspension	No	No
ALLERX-D	No	No
APAP 325	No	Yes
APAP 500	No	Yes
BALACET 325	No	Yes
DECONSAL CT	No	No
DECONSAL DM	No	No
Extendryl	No	No
HYOMAX DT	No	No
HYOMAX FT	No	No