AXONYX INC
Form S-4/A
August 25, 2006

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As filed with the Securities and Exchange Commission on August 25, 2006

Registration No. 333-136018

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Amendment No. 1 to
FORM S-4

REGISTRATION STATEMENT
Under
The Securities Act of 1933

AXONYX INC.

(Exact name of Registrant as specified in its charter)

Nevada	**2834**	**86-0883978**
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

500 Seventh Avenue, 10th Floor
New York, New York 10018
(212) 645-7704

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Gosse B. Bruinsma, M.D.
Chief Executive Officer
Axonyx Inc.
500 Seventh Avenue, 10th Floor
New York, New York 10018
Tel: (212) 645-7704
Fax: (212) 989-1745

(Name, address, including zip code, and telephone number, including area code, of agent for service)

L. Kay Chandler, Esq. **Matthew T. Browne, Esq.** Cooley Godward LLP 4401 Eastgate Mall San Diego, CA 92121 Tel: (858) 550-6000 Fax: (858) 550-6420	*Copies to:* **Neil M. Kurtz, M.D.** Chief Executive Officer TorreyPines Therapeutics, Inc. 11085 North Torrey Pines Road, Suite 300 La Jolla, CA 92037 Tel: (858) 623-5665 Fax: (858) 623-5666	**Patrick T. Seaver, Esq.** **Kevin B. Espinola, Esq.** Latham & Watkins LLP 650 Town Center Drive, 20th Floor Costa Mesa, CA 92626 Tel: (714) 540-1235 Fax: (714) 755-8290

Approximate date of commencement of proposed sale to the public:
As soon as practicable after the effectiveness of this registration statement and the satisfaction or waiver of all other conditions under the merger agreement described herein.

If the securities being registered on this Form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box. o

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Warrants to purchase common stock, $0.001 par value per share, including related rights to purchase Series A participating preferred stock	12,000,000	N/A(3)		
Common stock, $0.001 par value per share, including related rights to purchase Series A participating preferred stock	76,975,542(2)	N/A	$66,968,722(4)	$7,166
Common stock, $0.001 par value per share issuable upon exercise of warrants, including related rights to purchase Series A participating preferred stock	12,000,000	$0.87(5)	$10,440,000	$1,117
Total	100,975,542	$0.87	$77,408,722	$8,283

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

(Footnotes continued on next page)

(Footnotes continued from preceding page)

(1) Pursuant to Rule 416(a) under the Securities Act, this registration statement also registers such additional shares of the Axonyx common stock as may hereafter be issued or issuable with respect to the warrants and shares registered hereby as a result of any stock split, stock dividend, recapitalization or similar event.

(2) Relates to common stock, $0.001 par value per share, of Axonyx Inc. ("Axonyx") issuable to holders of common stock, $0.01 par value per share, preferred stock, $0.01 par value per share, and warrants of TorreyPines Therapeutics, Inc., a Delaware corporation ("TorreyPines"), in the proposed merger of Autobahn Acquisition, Inc., a Delaware corporation and a wholly owned subsidiary of Axonyx, with and into TorreyPines. The amount of Axonyx common stock to be registered is based on the estimated number of shares of Axonyx common stock that are expected to be issued pursuant to the merger, assuming an exchange ratio of 1.299 shares of Axonyx common stock for each outstanding share of TorreyPines common stock and preferred stock and for each option and warrant exercisable for shares of TorreyPines common stock and preferred stock. Axonyx anticipates that prior to the completion of the distribution of the securities covered by this registration statement, all of Axonyx common stock, including the securities covered by this registration statement, will be combined by a reverse split into a lesser amount of Axonyx common stock, and the amount of undistributed common stock deemed to be covered by this registration statement shall be proportionately reduced.

(3) Pursuant to 457(g) of the Securities Act, as amended (the "Securities Act"), there is no fee associated with the registration of the warrants because the securities to be offered pursuant to the warrants are being registered for distribution in this registration statement.

(4) Estimated solely for purposes of calculation of the registration fee in accordance with Rule 457(f) of the Securities Act based upon the aggregate book value of TorreyPines securities that may be cancelled in the merger computed as of July 15, 2006, the latest practicable date prior to the date of filing of this registration statement. TorreyPines is a private company and no market exists for its securities.

(5) Pursuant to Rule 457(g) of the Securities Act, the price per share and proposed maximum aggregate offering price have been estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(c) of the Securities Act and are based upon the average of the high and low sales prices of Axonyx common stock on July 21, 2006, as reported on The Nasdaq Capital Market, which was $0.87.

The information in this joint proxy statement/prospectus is not complete and may be changed. Axonyx may not sell its securities pursuant to the proposed transactions until the Registration Statement filed with the Securities and Exchange Commission is effective. This joint proxy statement/prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to completion, dated August 25, 2006

MEETINGS OF STOCKHOLDERS
YOUR VOTE IS VERY IMPORTANT

To the Stockholders of Axonyx Inc. and TorreyPines Therapeutics, Inc.:

Axonyx Inc., which we refer to as Axonyx, and TorreyPines Therapeutics, Inc., which we refer to as TorreyPines, have entered into a merger agreement pursuant to which a wholly owned subsidiary of Axonyx will merge with and into TorreyPines, with TorreyPines continuing as a wholly owned subsidiary of Axonyx. TorreyPines and Axonyx believe that the merger will result in a biopharmaceutical company with discovery and development capabilities across a spectrum of central nervous system, or CNS, diseases and disorders and a pipeline of clinical and preclinical stage product candidates designed to address significant and underserved or unmet medical needs.

At the effective time of the merger, each share of TorreyPines common stock and TorreyPines preferred stock will be converted into the right to receive 1.299 shares of Axonyx common stock, subject to adjustment to account for the effect of a reverse stock split of Axonyx common stock to be implemented prior to the consummation of the merger and to account for the occurrence of certain events discussed in the joint proxy statement/prospectus. Holders of TorreyPines preferred stock will also receive warrants to purchase shares of Axonyx common stock, referred to as merger warrants. Axonyx stockholders will continue to own their existing shares of Axonyx common stock. Immediately after the merger, TorreyPines securityholders will own approximately 58% of the fully-diluted shares of the combined company (excluding the merger warrants), with Axonyx securityholders holding approximately 42% of the fully-diluted shares of the combined company. If the merger warrants were exercised as of the closing of the merger, when combined with the shares of Axonyx common stock being issued in the merger, TorreyPines securityholders would own approximately 62% of the fully-diluted shares of the combined company, with existing Axonyx securityholders holding approximately 38% of the fully-diluted shares of the combined company.

Shares of Axonyx common stock are currently listed on the NASDAQ Capital Market under the symbol "AXYX". Prior to consummation of the merger, Axonyx intends to file an initial listing application with the NASDAQ Global Market pursuant to NASDAQ's "reverse merger" rules. After completion of the merger, Axonyx will be renamed "TorreyPines Therapeutics, Inc." and expects to trade on the NASDAQ Global Market under the symbol "TPTX". On [ ], 2006, the last trading day before the date of this joint proxy statement/prospectus, the closing sale price of Axonyx common stock was $[ ] per share.

Axonyx is holding an annual meeting of stockholders and TorreyPines is holding a special meeting of stockholders in order to obtain the stockholder approvals necessary to complete the merger and related matters. At the Axonyx annual meeting, which will be held at 2:00 p.m., local time, on September 28, 2006 at the offices of Eisner LLP, 750 Third Avenue, 16th Floor, New York, NY 10017, unless postponed or adjourned to a later date, Axonyx will ask its stockholders to, among other things, approve the issuance of Axonyx common stock and the merger warrants pursuant to the merger agreement, as well as the resulting change in control, and approve an amendment to Axonyx's articles of incorporation effecting a reverse stock split of Axonyx common stock, which is referred to as the reverse stock split, as described in the accompanying joint proxy statement/prospectus.

At the TorreyPines special meeting, which will be held at 9:00 a.m., local time, on September 28, 2006 at the offices of Cooley Godward LLP, 4401 Eastgate Mall, San Diego, CA 92121, unless postponed or adjourned to a later date, TorreyPines will ask its stockholders to, among other things, adopt the merger agreement.

After careful consideration, the Axonyx and TorreyPines boards of directors have unanimously approved the merger agreement and the respective proposals referred to above, and each of the Axonyx and TorreyPines boards of directors has determined that it is advisable to enter into the merger. Each of the board of directors of Axonyx and TorreyPines recommends that its respective stockholders vote "FOR" the respective proposals described in the accompanying joint proxy statement/prospectus.

More information about Axonyx, TorreyPines and the proposed transaction is contained in this joint proxy statement/prospectus. **Axonyx and TorreyPines urge you to read the accompanying joint proxy statement/prospectus carefully and in its entirety. IN PARTICULAR, YOU SHOULD CAREFULLY CONSIDER THE MATTERS DISCUSSED UNDER "*RISK FACTORS*" BEGINNING ON PAGE 22.**

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

Gosse B. Bruinsma, M.D.

President and Chief Executive Officer

AXONYX INC.

Neil M. Kurtz, M.D.

President and Chief Executive Officer

TORREYPINES THERAPEUTICS, 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 joint proxy statement/prospectus. Any representation to the contrary is a criminal offense.

The accompanying joint proxy statement/prospectus is dated [ ], 2006, and is first being mailed to Axonyx and TorreyPines stockholders on or about [ ], 2006.

AXONYX INC.
500 Seventh Avenue, 10th Floor
New York, New York 10018
(212) 645-7704

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD ON SEPTEMBER 28, 2006

Dear Stockholders of Axonyx:

On behalf of the board of directors of Axonyx Inc., a Nevada corporation, we are pleased to deliver this joint proxy statement/prospectus for the proposed merger between Axonyx and TorreyPines Therapeutics, Inc., a Delaware corporation, pursuant to which Autobahn Acquisition, Inc., a wholly owned subsidiary of Axonyx, will merge with and into TorreyPines, which will survive as a wholly owned subsidiary of Axonyx. The annual meeting of stockholders of Axonyx will be held on September 28, 2006 at 2:00 p.m., local time, at the offices of Eisner LLP, 750 Third Avenue, 16th Floor, New York, NY 10017, for the following purposes:

1. To consider and vote upon a proposal to approve the issuance of Axonyx common stock and warrants to purchase Axonyx common stock and the resulting change in control of Axonyx pursuant to the Agreement and Plan of Merger and Reorganization, dated as of June 7, 2006, by and among Axonyx, Autobahn Acquisition, Inc. and TorreyPines, a copy of which is attached as *Annex A* to the accompanying joint proxy statement/prospectus.

2. To approve an amendment to Axonyx's articles of incorporation effecting the reverse stock split, as described in the accompanying joint proxy statement/prospectus.

3. To approve an amendment to Axonyx's articles of incorporation to change the name "Axonyx Inc." to "TorreyPines Therapeutics, Inc."

4. To approve a change of Axonyx's state of incorporation from Nevada to Delaware, as described in the accompanying joint proxy statement/prospectus.

5. To approve the adoption, contingent upon and effective as of immediately following the effective time of the merger, of the Axonyx Inc. 2006 Equity Incentive Plan, as described in the accompanying joint proxy statement/prospectus.

6. To elect the six directors nominated by the nominating/governance committee of Axonyx's board of directors and named herein; provided, however, that if the merger is completed, it is anticipated that the Axonyx board of directors will consist of the ten people identified in the accompanying joint proxy statement/prospectus, four of whom are listed nominees.

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

8. To transact such other business as may properly come before the Axonyx annual meeting or any adjournment or postponement thereof.

The board of directors of Axonyx has fixed August 14, 2006 as the record date for the determination of stockholders entitled to notice of, and to vote at, the Axonyx annual meeting and any adjournment or postponement thereof. Only holders of record of shares of Axonyx common stock at the close of business on the record date are entitled to notice of, and to vote at, the Axonyx annual meeting. At the close of business on the record date, Axonyx had 53,680,721 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 Axonyx common stock having voting power present in person or represented by proxy at the Axonyx annual meeting is required for approval of Axonyx Proposal Nos. 1, 5 and 7. The affirmative vote of the holders of a majority of the shares of Axonyx common stock having voting power outstanding on the record date for the Axonyx annual meeting is required for approval of Axonyx Proposal Nos. 2, 3 and 4. For the election of directors (Proposal No. 6), the six nominees receiving the most "For" votes from the shares having voting power present in person or represented by proxy will be elected.

Under Nevada law, Axonyx stockholders are entitled to dissenters' rights in connection with the proposed reincorporation of Axonyx and Axonyx stockholders who would receive in connection with the reverse stock split cash in lieu of a fractional share of Axonyx stock will be entitled to certain dissenters' rights in connection with the proposed reverse stock split. For more information please see the sections entitled "Axonyx Proposal No. 2: Approval of the Amendment to Axonyx's Articles of Incorporation Effecting the Reverse Stock Split Dissenters' Rights" and "Axonyx Proposal No. 4: Approval of Change of Axonyx's State of Incorporation from Nevada to Delaware Dissenters' Rights" in the accompanying joint proxy statement/prospectus.

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

By Order of Axonyx's Board of Directors,

Gosse B. Bruinsma, M.D.
President and Chief Executive Officer
New York, New York
[ ], 2006

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

TORREYPINES THERAPEUTICS, INC.
11085 North Torrey Pines Road
Suite 300
La Jolla, CA 92037
(858) 623-5665

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS
TO BE HELD ON SEPTEMBER 28, 2006

To the Stockholders of TorreyPines Therapeutics, Inc.:

A special meeting of stockholders of TorreyPines Therapeutics, Inc. will be held at 9:00 a.m., local time, on September 28, 2006 at the offices of Cooley Godward LLP, 4401 Eastgate Mall, San Diego, CA 92121, for the following purposes:

1. To consider and vote upon a proposal to adopt the Agreement and Plan of Merger and Reorganization, dated as of June 7, 2006, by and among Axonyx Inc., Autobahn Acquisition, Inc., a wholly owned subsidiary of Axonyx, and TorreyPines, a copy of which is attached as *Annex A* to the accompanying joint proxy statement/prospectus.

2. To approve an amendment to TorreyPines' certificate of incorporation to change the name "TorreyPines Therapeutics, Inc." to "TPTX, Inc.", a copy of which is attached as *Annex I* to the accompanying joint proxy statement/prospectus.

3. To approve a proposal to adjourn the TorreyPines special meeting, if necessary, to solicit additional proxies in favor of the adoption of the merger agreement.

4. To transact such other business as may properly be brought before the TorreyPines special meeting and any adjournment or postponement thereof.

The TorreyPines board of directors has fixed August 14, 2006 as the record date for the determination of stockholders entitled to notice of, and to vote at, the TorreyPines special meeting and any adjournment or postponement thereof. Only holders of record of shares of TorreyPines common stock and holders of record of shares of TorreyPines preferred stock at the close of business on the record date are entitled to notice of, and to vote at, the TorreyPines special meeting. At the close of business on the record date, TorreyPines had (a) 3,456,052 shares of common stock outstanding and entitled to vote and (b) 48,994,673 shares of preferred stock outstanding and entitled to vote, including 8,794,800 shares of Series A preferred stock outstanding and entitled to vote, 12,736,828 shares of Series B preferred stock outstanding and entitled to vote, 23,220,199 shares of Series C preferred stock outstanding and entitled to vote and 4,242,846 shares of Series C-2 preferred stock outstanding and entitled to vote.

The TorreyPines board of directors has reviewed and considered the terms and conditions of the proposed merger. Based on its review, the TorreyPines board of directors has unanimously approved the merger and the merger agreement and determined that the merger agreement and the transactions contemplated by the merger agreement, including the merger, are advisable and fair to, and in the best interests of, TorreyPines and its stockholders. **Accordingly, the TorreyPines board of directors unanimously recommends that you vote "FOR" the adoption of the merger agreement. In addition, the TorreyPines board of directors unanimously recommends that you vote "FOR" the name change from TorreyPines Therapeutics to TPTX, Inc. and "FOR" the adjournment of the TorreyPines special meeting, if necessary, to solicit additional proxies in favor of the adoption of the merger agreement.**

TorreyPines cannot complete the merger unless the merger agreement is adopted by the affirmative vote of (a) the holders of a majority of the shares of TorreyPines common stock and TorreyPines preferred stock outstanding on the record date and entitled to vote at the TorreyPines special meeting, voting as a single class and on an as-converted basis, and (b) the holders of two-thirds of the shares of TorreyPines preferred stock outstanding on the record date and entitled to vote at the TorreyPines special meeting, voting as a single class and on an as-converted basis. The accompanying joint proxy statement/prospectus describes the proposed merger and the actions to be taken in connection with the merger and provides additional information about the parties involved. Please give this information your careful attention.

Under the Delaware General Corporation Law, referred to as the DGCL, holders of TorreyPines capital stock who do not vote in favor of the adoption of the merger agreement will have the right to seek appraisal of the fair value of their shares as determined by the Delaware Court of Chancery if the merger is completed, but only if they submit a written demand for an appraisal prior to the vote on the adoption of the merger agreement and they comply with the other procedures under the DGCL explained in the joint proxy statement/prospectus. For more information, please see the section entitled "The Merger Appraisal Rights" in the accompanying joint proxy statement/prospectus.

Whether or not you plan to attend the TorreyPines special meeting, please complete, sign and date the enclosed proxy and return it promptly in the enclosed postage-paid return envelope. You may revoke the proxy at any time prior to its exercise in the manner described in the accompanying joint proxy statement/prospectus. Any stockholder present at the TorreyPines special meeting, including any adjournment or postponement of the meeting, may revoke such stockholder's proxy and vote personally on the matters to be considered at the TorreyPines special meeting. Executed proxies with no instructions indicated thereon will be voted "FOR" the adoption of the merger agreement, "FOR" the amendment to the certificate of incorporation to change the name and "FOR" the adjournment of the TorreyPines special meeting, if necessary, to solicit additional proxies in favor of the adoption of the merger agreement.

Please do not send any TorreyPines stock certificates at this time. After the merger is completed, you will receive written instructions for exchanging your stock certificates.

By Order of TorreyPines' Board of Directors,

Neil M. Kurtz, M.D.
President and Chief Executive Officer
La Jolla, California
[ ], 2006

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QUESTIONS AND ANSWERS ABOUT THE MERGER

Except where specifically noted, the following information and all other information contained in this joint proxy statement/prospectus does not give effect to the reverse stock split described in Axonyx Proposal No. 2.

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: Axonyx and TorreyPines have entered into an Agreement and Plan of Merger and Reorganization, dated as of June 7, 2006, which is referred to as the merger agreement. The merger agreement contains the terms and conditions of the proposed business combination of Axonyx and TorreyPines. Under the merger agreement, Autobahn Acquisition, Inc., a wholly owned subsidiary of Axonyx, which is referred to as the merger sub, will merge into TorreyPines, with TorreyPines continuing as a wholly owned subsidiary of Axonyx, which transaction is referred to as the merger. At the effective time of the merger, each share of TorreyPines common stock and TorreyPines preferred stock outstanding immediately prior to the effective time of the merger will be converted into the right to receive 1.299 shares of Axonyx common stock, subject to adjustment to account for the effect of a reverse stock split of Axonyx common stock to be implemented prior to the consummation of the merger, which is referred to as the reverse stock split, and to account for the occurrence of certain other events.

Q: **What will happen to Axonyx if, for any reason, the merger with TorreyPines does not close?**

A: If, for any reason, the merger with TorreyPines does not close, the Axonyx board of directors may elect to, among other things, continue to operate Axonyx's business, attempt to complete another strategic transaction like the merger or attempt to sell or otherwise dispose of Axonyx's various operating assets.

Q: **Why are the two companies proposing to merge?**

A: TorreyPines and Axonyx believe that the merger will result in a biopharmaceutical company with discovery and development capabilities across a spectrum of central nervous system, or CNS, diseases and disorders and a pipeline of clinical and preclinical stage product candidates designed to address significant and underserved or unmet medical needs. In addition, the companies anticipate that the financial resources of the combined company and experienced management team will position it well to focus on execution with respect to its product candidate portfolio. For a discussion of Axonyx's and TorreyPines' reasons for the merger, please see the section entitled "The Merger Reasons for the Merger" in this joint proxy statement/prospectus.

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

A: You are receiving this joint proxy statement/prospectus because you have been identified as a stockholder of either Axonyx or TorreyPines as of the applicable record date, and you are entitled to vote at such company's stockholder meeting. This document serves as both a joint proxy statement of Axonyx and TorreyPines used to solicit proxies for the stockholder meetings, and as a prospectus of Axonyx used to offer shares of Axonyx common stock (a) in exchange for shares of TorreyPines common stock and preferred stock in the merger and (b) issuable upon exercise of the warrants to purchase shares of Axonyx common stock being issued to the holders of TorreyPines preferred stock in the merger, referred to as the merger warrants. This joint proxy statement/prospectus contains important information about the merger and the stockholder meetings of Axonyx and TorreyPines, and you should read it carefully.

Q:

What do I need to do now?

A:

Axonyx and TorreyPines urge you to read this joint proxy statement/prospectus carefully, including its annexes, and to consider how the merger affects you.

If you are an Axonyx stockholder, you may provide your proxy instructions in one of three different ways. First, you can mail your signed proxy card in the enclosed return envelope. Alternatively, you can provide your proxy instructions via touch-tone telephone by dialing the toll-free telephone number on your proxy card or voting instruction form. You may also provide your proxy instructions via the Internet by following the instructions on your proxy card or voting instruction form.

If you are a TorreyPines stockholder, you may only provide your proxy instructions by mailing your signed proxy card in the enclosed return envelope.

Please provide your proxy instructions only once and as soon as possible so that your shares can be voted at the annual meeting of Axonyx stockholders or the special meeting of TorreyPines stockholders, as applicable.

Q:

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

A:

If you are an Axonyx stockholder, the failure to return your proxy card or otherwise provide proxy instructions will have the same effect as voting against Axonyx Proposal Nos. 2, 3 and 4 and your shares will not be counted for purposes of determining whether a quorum is present at the Axonyx annual meeting. If you are a TorreyPines stockholder, the failure to return your proxy card will have the same effect as voting against the adoption of the merger agreement and the name change and your shares will not be counted for purposes of determining whether a quorum is present at the TorreyPines special meeting.

Q:

May I vote in person?

A:

If you are a stockholder of Axonyx and your shares of Axonyx common stock are registered directly in your name with Axonyx's 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 Axonyx. If you are an Axonyx stockholder of record, you may attend the annual meeting of Axonyx stockholders to be held on September 28, 2006 and vote your shares in person. **Even if you plan to attend the Axonyx annual meeting in person, Axonyx requests that you sign and return the enclosed proxy to ensure that your shares will be represented at the Axonyx annual meeting if you are unable to attend.**

If your shares of Axonyx 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 annual meeting of Axonyx stockholders. Because a beneficial owner is not the stockholder of record, you may not vote these shares in person at the Axonyx annual 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.

If you are a stockholder of TorreyPines and your shares of TorreyPines capital stock are registered directly in your name, 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 TorreyPines. If you are a TorreyPines stockholder of record, you may attend the special meeting of TorreyPines stockholders to be held on September 28, 2006 and vote your shares in person.

Q:

If my Axonyx 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 Axonyx common stock without instructions from you. Brokers are not expected to have discretionary authority to vote for Axonyx Proposal Nos. 1, 2, 3, 4 or 5. 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:

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

TorreyPines stockholders of record, other than those TorreyPines stockholders who have executed voting agreements, may change their vote at any time before their proxy is voted at the TorreyPines special meeting by delivering to the Secretary of TorreyPines a signed notice of revocation or a later-dated signed proxy, or by attending the TorreyPines special meeting and voting in person. Attendance at the TorreyPines special meeting does not in itself constitute the revocation of a proxy.

Q:

Should I send in my stock certificates now?

A:

No. If you are a TorreyPines stockholder, after the merger is consummated, you will receive written instructions from the exchange agent for exchanging your certificates representing shares of TorreyPines capital stock for certificates representing shares of Axonyx common stock and, in the case of holders of TorreyPines preferred stock, the merger warrants. You will receive a cash payment for any fractional shares. If Axonyx Proposal Nos. 2, 3 and 4 are approved and effected, Axonyx stockholders will also exchange their stock certificates and will receive written instructions from Axonyx's transfer agent for exchanging their shares of Axonyx common stock.

Q:

Who is paying for this proxy solicitation?

A:

Axonyx and TorreyPines will share equally the cost of printing and filing of this joint proxy statement/prospectus and the proxy card. Axonyx has engaged and will pay Georgeson Inc., a proxy solicitation firm, to solicit proxies from Axonyx's stockholders. Arrangements will also be made with brokerage firms and other custodians, nominees and fiduciaries who are record holders of Axonyx common stock for the forwarding of solicitation materials to the beneficial owners of Axonyx common stock. Axonyx 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.

Q:

Who can help answer my questions?

A:

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

Georgeson Inc.
17 State Street, 10th Floor
New York, NY 10004
(866) 482-5136

Axonyx Inc.
500 Seventh Avenue, 10th Floor
New York, NY 10018
Tel: (212) 645-7704
Fax: (212) 978-1745
Attn: Investor Relations

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

TorreyPines Therapeutics, Inc.
11085 North Torrey Pines Road
Suite 300
La Jolla, CA 92037
(858) 623-5665
Attn: Secretary

SUMMARY

This summary highlights selected information from this joint 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 Axonyx annual meeting and TorreyPines special meeting, you should read this entire joint proxy statement/prospectus carefully, including the merger agreement attached as Annex A, the opinion of Banc of America Securities LLC attached as Annex B, and the other documents to which you are referred herein. For more information, please see the section entitled "Where You Can Find More Information" in this joint proxy statement/prospectus.

The Companies

Axonyx Inc.
500 Seventh Avenue, 10th Floor
New York, NY 10018
(212) 645-7704

Axonyx is a biopharmaceutical company, specializing in central nervous system, or CNS, neurodegenerative diseases and disorders, engaged in the business of acquiring patent rights to clinical stage compounds, compounds with strong proof of concept data and compounds ready for proof of concept validation with convincing scientific rationale, or potentially another company with similar rights. Axonyx further develops these compounds and then seek to out-license or partner them. Axonyx has acquired patent rights to three main classes of therapeutic compounds designed for the treatment of Alzheimer's Disease, or AD, Mild Cognitive Impairment, and related diseases. Axonyx has acquired patent rights to a class of potential therapeutic compounds designed for the treatment of prion related diseases, which are degenerative diseases of the brain that are thought to be caused by an infectious form of a protein called a prion. Prions, unlike viruses, bacteria and fungi, have no DNA and consist only of protein. Such diseases include Creutzfeldt Jakob Disease, new variant in humans, Bovine Spongiform Encephalopathy, referred to as BSE, in cows, and Scrapies disease in sheep. Axonyx has licensed these patent rights from New York University. Axonyx also has co-ownership rights to patent applications regarding the therapeutic compound named Posiphen designed for the treatment of AD progression and Bisnorcymserine, or BNC, in development for the treatment of severe AD.

Axonyx's mission is to be a leading biopharmaceutical company that develops products and technologies to treat CNS diseases and disorders. Axonyx's initial business strategy has been focused primarily on three compounds in development for AD. These are:

Phenserine A symptomatic and disease progression treatment of mild to moderate AD

Posiphen A disease progression treatment for AD

Bisnorcymserine A symptomatic treatment of severe AD

Axonyx's current business strategy includes identifying and seeking to in-license potential compounds or partner with companies to expand its product development portfolio.

TorreyPines Therapeutics, Inc.
11085 North Torrey Pines Road
Suite 300
La Jolla, CA 92037
(858) 623-5665

TorreyPines discovers and develops novel small molecules to treat diseases and disorders of the CNS, including migraine, chronic pain, and AD. Through its in-house discovery programs and strategic in-licensing, TorreyPines has built a promising pipeline of five product candidates for these indications. TorreyPines has three product candidates in clinical development and two in preclinical testing. In

addition, TorreyPines has two drug discovery programs, both undertaken in collaboration with Eisai Co., Ltd., or Eisai, a leader in AD research. These programs focus on discovering and validating novel molecular targets and small molecules for AD. TorreyPines believes that its proprietary product candidates, experienced management team, discovery operation, and in-depth focus on CNS diseases and disorders provide it with a competitive advantage in building a premier CNS biopharmaceutical company.

TorreyPines' mission is to deliver important new therapies to patients suffering from migraine, chronic pain, and AD. TorreyPines' migraine and chronic pain franchise is comprised of two novel product candidates that were in-licensed from Eli Lilly & Company, referred to as Eli Lilly, in 2003. Tezampanel is TorreyPines' lead product candidate for pain and NGX426 is a follow-on product candidate for pain. TorreyPines has three product candidates in development for AD, the most common form of dementia in the elderly, which may represent a new generation of therapies that are intended to target the disease mechanisms underlying AD. NGX267, TorreyPines' lead product candidate for AD and NGX292, a follow-on product candidate, are muscarinic, or M1, receptor agonists that were in-licensed from Life Science Research Israel, or LSRI, in 2004. NGX555 is a gamma-secretase modulator that was discovered at TorreyPines.

Summary of the Merger (see page 69)

If the merger is completed, merger sub will merge with and into TorreyPines, with TorreyPines continuing as a wholly owned subsidiary of Axonyx. Immediately after the merger, subject to adjustments to reflect certain events that could occur prior to closing of the merger, TorreyPines securityholders will own approximately 58% of the fully-diluted shares of the combined company (excluding the merger warrants, discussed below), with Axonyx securityholders holding approximately 42% of the fully-diluted shares of the combined company, in each case calculated using the treasury stock method. In addition, holders of TorreyPines preferred stock immediately prior to the effective time of the merger will receive warrants, referred to as merger warrants, to purchase a pro rata portion of a total of 12,000,000 shares of Axonyx common stock, subject to adjustment to account for the reverse stock split described in this joint proxy statement/prospectus, based on the number of shares of TorreyPines preferred stock held by each holder as a percentage of the total shares of TorreyPines preferred stock outstanding. If the merger warrants were exercised as of the closing of the merger, TorreyPines securityholders would own approximately 62% of the fully-diluted shares of the combined company, with existing Axonyx securityholders holding approximately 38% of the fully-diluted shares of the combined company, in each case calculated using the treasury stock method. These percentages assume:

- a reference price of $0.942 per share of Axonyx common stock for treasury stock method calculation purposes, calculated based on the average closing price per share of Axonyx common stock for the five trading days ending June 5, 2006;

- that the number of shares subject to TorreyPines options and warrants does not change between the date of this joint proxy statement/prospectus and the closing of the merger; and

- that the exchange ratio is not adjusted, as described in "The Merger Agreement Merger Consideration and Adjustment" below.

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

The closing of the merger will occur no later than the fifth business day after the last of the conditions to the merger has been satisfied or waived, or at another time as Axonyx and TorreyPines agree. Axonyx and TorreyPines anticipate that the consummation of the merger will occur sometime in the fourth quarter of 2006. However, because the merger is subject to a number of conditions, neither

Axonyx nor TorreyPines can predict exactly when the closing will occur or if it will occur at all. After completion of the merger, assuming that Axonyx receives the required stockholder approval of Axonyx Proposal No. 3, Axonyx will be renamed "TorreyPines Therapeutics, Inc."

Reasons for the Merger (see page 75)

The combined company resulting from the merger will be a biopharmaceutical company that discovers and develops treatments for CNS diseases and disorders. TorreyPines and Axonyx believe that the combined company will have the following potential advantages:

Pipeline. The product candidate pipeline of the combined company will be composed of eight product candidates in various stages of development, with two product candidates for treatment of pain and six product candidates for AD. Of the two product candidates for treatment of pain, one product candidate has completed Phase IIa clinical trials. An Investigational New Drug application, or IND, was filed with the U.S. Food and Drug Administration, or FDA, in June 2006 on the second product candidate and a Phase I clinical trial began in August 2006. Of the six candidates for AD, two product candidates are in Phase I clinical trials, and three product candidates are in preclinical development. The combined company's pipeline in AD also includes Phenserine, which is in Phase III clinical development and which the combined company may make available to third parties for licensing.

Markets. The combined company will have discovery and development capabilities across a spectrum of CNS diseases and disorders. The markets to be addressed by the clinical and preclinical stage product candidates of the combined company represent sizable and underserved or unmet medical needs. The product candidates may provide significant medical benefits for patients.

Financial Resources. The financial resources of the combined company will position it well to focus on execution with respect to its product candidate portfolio.

Management Team. The combined company will be led by experienced senior management from TorreyPines and a board of directors with representation from each of TorreyPines and Axonyx.

Each of the board of directors of Axonyx and TorreyPines also considered other reasons for the merger, as described herein. For example, the board of directors of Axonyx considered, among other things:

Axonyx currently has two product candidates in clinical trials and one product candidate in preclinical development. The addition of the three TorreyPines product candidates currently being evaluated in clinical trials, and a number of additional TorreyPines product candidates in preclinical development, broadens the product pipeline for treatment of CNS diseases and disorders;

the consideration of strategic alternatives to the merger, including engaging in a merger transaction with another company, continuing to operate Axonyx on a stand-alone basis or undertaking a liquidation of Axonyx; and

the opportunity for Axonyx's securityholders to participate in the long-term value of TorreyPines' product candidate development programs as a result of the merger.

In addition, the TorreyPines' board of directors approved the merger based on a number of factors, including the following:

the fact that Axonyx's available cash, together with TorreyPines' cash resources, are anticipated to meet TorreyPines projected operating requirements through 2007 and to enable TorreyPines to reach its projected near-term product development milestones, and that, without Axonyx's

cash, TorreyPines would need to raise additional funds through private or public equity offerings, partnerships with pharmaceutical companies, project financing, debt financing or other arrangements;

the relative certainty of amount and timing of access to capital through the merger with Axonyx compared to other financing options considered; and

the range of options available to the combined company to access private and public equity markets should additional capital be needed in the future will likely be greater as a public company than TorreyPines' existing options.

Opinion of Axonyx's Financial Advisor (see page 81)

Banc of America Securities LLC, referred to herein as Banc of America Securities, Axonyx's financial advisor, delivered to the board of directors of Axonyx a written opinion dated June 7, 2006, to the effect that, as of the date of the opinion and based on and subject to various assumptions and limitations described in the opinion, the consideration provided for in the proposed merger was fair, from a financial point of view, to Axonyx. The full text of this written opinion, which describes, among other things, the assumptions made, procedures followed, factors considered and limitations on the review undertaken, is attached as *Annex B* to this joint proxy statement/prospectus and is incorporated by reference in its entirety into this proxy statement. Holders of Axonyx common stock are encouraged to read the opinion carefully in its entirety. **Banc of America Securities' opinion was provided to the board of directors of Axonyx in connection with its evaluation of the consideration provided for in the merger. It does not address any other aspect of the proposed merger and does not constitute a recommendation as to how any stockholders of Axonyx should vote or act in connection with the merger.**

Overview of the Merger Agreement

Merger Consideration and Adjustment (see page 108)

At the effective time of the merger, each share of TorreyPines common stock and TorreyPines preferred stock will be converted into the right to receive 1.299 shares of Axonyx common stock, subject to adjustment to account for the effect of the reverse stock split and the occurrence of certain events, which is referred to as the exchange ratio. The exchange ratio is subject to adjustment upon the occurrence of certain events, as follows:

if Axonyx completes an out-license of any of its product candidates to any company on a list of specified companies prior to the date that is five business days before the date of the Axonyx annual meeting of stockholders, referred to as an Axonyx permitted out-license, then the exchange ratio will be adjusted in accordance with a formula set forth in the merger agreement to reflect the addition to Axonyx's valuation of 75% of the cash paid to Axonyx at or prior to the closing of the Axonyx permitted out-license, which will have the effect of increasing the percentage of the combined company owned by Axonyx's securityholders and reducing the percentage of the combined company owned by TorreyPines' securityholders. In addition, if Axonyx completes an Axonyx permitted out-license, TorreyPines may elect to terminate the merger agreement and require Axonyx to reimburse it for its expenses, up to a maximum of $1 million; and

if TorreyPines completes an out-license of any of its product candidates to any company on a list of specified companies prior to the date that is five business days before the date of the Axonyx annual meeting of stockholders, referred to as a TorreyPines permitted out-license, then the exchange ratio will be adjusted to reflect the addition to TorreyPines' valuation of 75% of the cash paid to TorreyPines at or prior to the closing of the TorreyPines permitted out-license,

which will have the effect of increasing the percentage of the combined company owned by TorreyPines' securityholders and reducing the percentage of the combined company owned by Axonyx's securityholders. In addition, if TorreyPines completes a TorreyPines permitted out-license, Axonyx may elect to terminate the merger agreement and require TorreyPines to reimburse it for its expenses, up to a maximum of $1 million.

As part of the merger consideration, each holder of TorreyPines preferred stock immediately prior to the effective time of the merger will receive a warrant, which is referred to as a merger warrant, to purchase its pro rata portion of a total of 12,000,000 shares of Axonyx common stock, subject to adjustment to account for the reverse stock split, based on the number of shares of TorreyPines preferred stock held by such holder as a percentage of the total shares of TorreyPines preferred stock outstanding. At the effective time, all outstanding options to purchase TorreyPines common stock and warrants to purchase TorreyPines common stock and TorreyPines Series A, Series B and Series C-2 preferred stock not exercised or terminated prior to the effective time of the merger will be assumed by Axonyx. For a more complete description of what TorreyPines securityholders will be entitled to receive in the merger, please see the section entitled "The Merger Agreement Merger Consideration and Adjustment" in this joint proxy statement/prospectus.

Conditions to Completion of the Merger (see page 110)

To consummate the merger, Axonyx stockholders must approve:

the issuance of Axonyx common stock and the merger warrants and the resulting change in control of Axonyx, which requires the affirmative vote of the holders of a majority of the shares of Axonyx common stock having voting power present in person or by proxy at the Axonyx annual meeting;

the amendment to Axonyx's articles of incorporation effecting a reverse stock split of Axonyx common stock, at a ratio within the range of 5:1 to 10:1, as described below, and a name change from "Axonyx Inc." to "TorreyPines Therapeutics, Inc.", which requires the affirmative vote of holders of a majority of the outstanding common stock on the record date for the Axonyx annual meeting; and

a change of Axonyx's state of incorporation from Nevada to Delaware, which requires the affirmative vote of holders of a majority of the outstanding common stock on the record date for the Axonyx annual meeting.

Upon the effectiveness of the amendment to Axonyx's articles of incorporation effecting the reverse stock split, referred to as the split effective time, the issued shares of Axonyx common stock immediately prior to the split effective time will be reclassified into a smaller number of shares such that a Axonyx stockholder will own one share of Axonyx common stock for each 5 to 10 shares of issued common stock held by that stockholder immediately prior to the split effective time. The exact split ratio within the 5:1 to 10:1 range will be determined by the Axonyx board of directors prior to the split effective time and will be publicly announced by Axonyx. Because the listing standards of the NASDAQ Global Market will require Axonyx to have, among other things, a $5.00 per share minimum bid price, the reverse stock split will be necessary in order to consummate the merger.

In addition, TorreyPines stockholders must adopt the merger agreement, which requires the affirmative vote of:

the holders of a majority of the shares of TorreyPines common stock and TorreyPines preferred stock outstanding on the record date and entitled to vote at the TorreyPines special meeting, voting as a single class and on an as-converted basis; and

the holders of two-thirds of the TorreyPines preferred stock outstanding on the record date and entitled to vote at the TorreyPines special meeting, voting as a single class and on an as-converted basis.

In addition to obtaining stockholder approval and appropriate regulatory approvals, each of the other closing conditions set forth in the merger agreement must be satisfied or waived. Among the closing conditions is the requirement that Axonyx's net cash, as calculated pursuant to the merger agreement, be at least $38 million as measured on the date that is 10 business days prior to the anticipated date for closing. The items that constitute Axonyx's net cash at the closing of the merger are subject to many factors, many of which are outside of Axonyx's control. For a more complete description of the closing conditions under the merger agreement, please see the section entitled "The Merger Agreement Conditions to the Completion of the Merger" in this joint proxy statement/prospectus.

No Solicitation (see page 112)

Subject to certain exceptions, each of TorreyPines and Axonyx agreed that it and any of its subsidiaries will not, nor will it or any of its subsidiaries authorize or permit any of the officers, directors, investment bankers, attorneys or accountants retained by it or any of its subsidiaries to, and it will use its commercially reasonable efforts to cause its and its subsidiaries' non-officer employees and other agents not to, and will not authorize any of them to, directly or indirectly:

solicit, initiate, encourage, induce or knowingly facilitate the communication, making, submission or announcement of, any "acquisition proposal," as defined in the merger agreement, or inquiry, indication of interest or request for information that could reasonably be expected to lead to an acquisition proposal;

furnish to any person any information with respect to it in connection with or in response to an acquisition proposal, indication of interest or request for information;

engage in discussions or negotiations with respect to any acquisition proposal, indication of interest or request for information;

approve, endorse or recommend an acquisition proposal; or

execute or enter into any letter of intent or similar document or any contract contemplating or otherwise relating to an acquisition proposal.

Notwithstanding the foregoing, the no solicitation provisions do not restrict any of the following activities:

In the case of Axonyx, Axonyx's ability to negotiate or consummate an Axonyx permitted out-license; and

In the case of TorreyPines, TorreyPines' ability to negotiate or consummate a TorreyPines permitted out-license.

Other Strategic Transactions (see page 108)

Pursuant to the terms of the merger agreement, Axonyx is permitted to consummate an Axonyx permitted out-license. If Axonyx completes an Axonyx permitted out-license prior to the date that is five business days before the date of the Axonyx annual meeting of stockholders, the exchange ratio will be adjusted in accordance with a formula set forth in the merger agreement to reflect the addition to Axonyx's valuation of 75% of the cash paid to Axonyx at or prior to the closing of the Axonyx permitted out-license, which will have the effect of increasing the percentage of the combined company owned by Axonyx's securityholders and reducing the percentage of the combined company owned by

TorreyPines securityholders. In addition, if Axonyx completes an Axonyx permitted out-license, TorreyPines may elect to terminate the merger agreement and require Axonyx to reimburse it for its expenses, up to a maximum of $1 million.

In addition, pursuant to the terms of the merger agreement, TorreyPines is permitted to consummate a TorreyPines permitted out-license. If TorreyPines completes a TorreyPines permitted out-license prior to the date that is five business days before the date of the Axonyx annual meeting of stockholders, the exchange ratio will be adjusted in accordance with a formula set forth in the merger agreement to reflect the addition to TorreyPines' valuation of 75% of the cash paid to TorreyPines at or prior to the closing of the TorreyPines permitted out-license, which will have the effect of increasing the percentage of the combined company owned by TorreyPines' securityholders and reducing the percentage of the combined company owned by Axonyx securityholders. In addition, if TorreyPines completes a TorreyPines permitted out-license, Axonyx may elect to terminate the merger agreement and require TorreyPines to reimburse it for its expenses, up to a maximum of $1 million.

Except for the strategic transactions mentioned above, the merger agreement places certain limitations on the ability of Axonyx and TorreyPines to effect strategic transactions, including the limitations imposed by the non-solicitation provisions described above.

Termination of the Merger Agreement (see page 117)

Either Axonyx or TorreyPines can terminate the merger agreement under certain circumstances, which would prevent the merger from being consummated.

Termination Fee (see page 120)

If the merger agreement is terminated under certain circumstances, Axonyx or TorreyPines will be required to pay the expenses of the other party, up to a maximum of $1 million. In addition, under certain circumstances, Axonyx or TorreyPines will be required to pay the other party a termination fee of $2 million, less any expenses of the other party already paid.

Voting Agreements (see page 123)

In connection with the execution of the merger agreement, several TorreyPines stockholders entered into voting agreements pursuant to which, among other things, each of these stockholders agreed, solely in its capacity as a stockholder, to vote all of its shares of TorreyPines capital stock in favor of the adoption of the merger agreement, against any matter that would result in a breach of the merger agreement by TorreyPines and against any other action which is intended, or could reasonably be expected to impede, interfere with, delay, postpone, discourage or adversely affect the merger or any of the other transactions contemplated by the merger agreement.

As of June 7, 2006, the stockholders of TorreyPines that entered into voting agreements owned an aggregate of 1,100,000 shares of TorreyPines common stock and 39,379,400 shares of TorreyPines preferred stock, representing approximately 33% of the outstanding TorreyPines common stock, approximately 80% of the outstanding TorreyPines preferred stock and approximately 77% of the aggregate outstanding TorreyPines capital stock. All of these stockholders are executive officers or directors of TorreyPines or entities controlled by such persons, or 5% stockholders of TorreyPines. If the board of directors of TorreyPines withdraws its recommendation in favor of the merger as permitted under the merger agreement and TorreyPines receives a superior offer, as described under "The Merger Agreement No Solicitation" in this joint proxy statement/prospectus, the voting agreement will only apply to the number of shares of TorreyPines capital stock that in the aggregate is equal to 33% of the outstanding TorreyPines common stock and preferred stock, voting together as a class, and 33% of the TorreyPines preferred stock, voting separately as a class.

In connection with the execution of the merger agreement, several Axonyx stockholders entered into voting agreements with TorreyPines pursuant to which, among other things, each of these stockholders agreed, solely in its capacity as a stockholder, to vote all of its shares of Axonyx common stock in favor of the approval of the issuance of the shares of Axonyx common stock and the merger warrants in the merger, the amendment to Axonyx's articles of incorporation effecting the reverse stock split and the name change from "Axonyx Inc." to "TorreyPines Therapeutics, Inc.", the change of Axonyx's state of incorporation from Nevada to Delaware and the Axonyx 2006 Equity Incentive Plan and any action in furtherance of the foregoing, and against any matter that would result in a breach of the merger agreement by Axonyx and any other action, which is intended, or could reasonably be expected to impede, interfere with, delay, postpone, discourage or adversely affect the merger or any of the other transactions contemplated by the merger agreement.

The Axonyx stockholders that entered into voting agreements are Axonyx officers and directors. As of June 7, 2006, these stockholders owned shares in the aggregate representing approximately 4.7% of the outstanding Axonyx common stock.

Lock-up Agreements (see page 124)

As a condition to the closing of the merger, the TorreyPines securityholders listed below will enter into lock-up agreements, pursuant to which such parties will agree not to, except in limited circumstances, sell or transfer, or engage in hedging or similar transactions with respect to, the shares of Axonyx common stock, including shares issuable upon exercise of the merger warrants, that they receive pursuant to the terms of the merger agreement from the closing date of the merger until 180 days after the closing date. The following TorreyPines securityholders will execute lock-up agreements: Neil M. Kurtz, M.D., Evelyn Graham, Craig Johnson, William T. Comer, Ph.D., Roy C. Cosan, Peter Davis, Ph.D., Jean Deleage, Ph.D., Jason S. Fisherman, M.D., Rudolph E. Tanzi, Ph.D., Patrick Van Beneden, Johnson & Johnson Development Corporation, Alta Partners and its affiliates, Advent International and its affiliates and GIMV, NV and its affiliates. As of August 23, 2006, these securityholders beneficially owned in the aggregate approximately 78% of the TorreyPines common and preferred stock.

Management Following the Merger (see page 110)

Effective as of the closing of the merger, the combined company's officers are expected to include Neil M. Kurtz, M.D. (President and Chief Executive Officer), Evelyn Graham (Chief Operating Officer), Craig Johnson (Vice President Finance and Chief Financial Officer), Michael Murphy, M.D., Ph.D. (Sr. Vice President, Discovery and Development and Chief Medical Officer), and Steven Wagner, Ph.D. (Chief Scientific Officer), each of whom currently holds the same position at TorreyPines. The combined company will initially have a ten member board of directors, comprised of six individuals from TorreyPines' current board of directors, Neil M. Kurtz, M.D., William T. Comer, Ph.D., Peter Davis, Ph.D., Jean Deleage, Ph.D., Jason Fisherman, M.D. and Patrick Van Beneden, and four individuals from Axonyx's current board of directors, Louis G. Cornacchia, Marvin S. Hausman, M.D., Steven H. Ferris, Ph.D. and Steven B. Ratoff.

Interests of Certain Directors, Officers and Affiliates of Axonyx and TorreyPines (see pages 91 and 95)

In considering the recommendation of the Axonyx board of directors with respect to issuing shares of Axonyx common stock and the merger warrants pursuant to the merger agreement and the other matters to be acted upon by Axonyx stockholders at the Axonyx annual meeting, Axonyx stockholders should be aware that certain members of the board of directors and executive officers of Axonyx have interests in the merger that may be different from, or in addition to, interests they have as Axonyx stockholders. For example, Axonyx has entered into a change of control agreement with each of its executive officers that may result in the receipt by such executive officers of cash severance payments

and other benefits with a total value of approximately $2.6 million (collectively, not individually, and excluding the value of any accelerated vesting of stock options or lapsing of any post-termination stock option exercise restrictions) and the acceleration of certain stock options held by those officers to purchase shares of Axonyx common stock, based on data available as of August 23, 2006 and assuming a qualifying termination of employment of each executive officer's employment as of such date. In addition, the closing of the merger will result in the acceleration of vesting of the stock options to purchase approximately 1,110,625 shares of Axonyx common stock held by Axonyx's executive officers and directors, whether or not there is a qualifying termination of such officer's employment, and certain Axonyx directors will continue to serve on the board of directors of the combined company following the consummation of the merger.

As of August 23, 2006, all directors and executive officers of Axonyx, together with their affiliates, beneficially owned 8.9% of the shares of Axonyx common stock. The affirmative vote of the holders of a majority of the Axonyx common stock having voting power present in person or represented by proxy at the Axonyx annual meeting is required for approval of Axonyx Proposal Nos. 1, 5 and 7. The affirmative vote of holders of a majority of the Axonyx common stock having voting power outstanding on the record date for the Axonyx annual meeting is required for approval of Axonyx Proposal Nos. 2, 3 and 4. Certain Axonyx officers and directors, and their affiliates, have also entered into voting agreements 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 joint proxy statement/prospectus.

In considering the recommendation of the TorreyPines board of directors with respect to adopting the merger agreement, TorreyPines stockholders should be aware that certain members of the board of directors and executive officers of TorreyPines have interests in the merger that may be different from, or in addition to, interests they have as TorreyPines stockholders. For example, following the consummation of the merger, certain of TorreyPines' directors will continue to serve on the board of directors of the combined company and the management team of the combined company is expected to be composed of the management team of TorreyPines. In addition, certain of TorreyPines' directors and all of TorreyPines' executive officers hold options to purchase shares of TorreyPines common stock, which options will be assumed by Axonyx and become options to purchase shares of Axonyx common stock based on the exchange ratio following the consummation of the merger.

As of August 23, 2006, all directors and executive officers of TorreyPines, together with their affiliates, beneficially owned approximately 79% of the shares of TorreyPines capital stock. The adoption of the merger agreement and the approval of an amendment to TorreyPines' certificate of incorporation to change the name "TorreyPines Therapeutics, Inc." to "TPTX, Inc." requires the affirmative vote of (a) the holders of a majority of the shares of TorreyPines common stock and TorreyPines preferred stock outstanding on the record date and entitled to vote at the TorreyPines special meeting, voting as a single class and on an as-converted basis, and (b) the holders of a two-thirds of the shares of TorreyPines preferred stock outstanding on the record date and entitled to vote at the TorreyPines special meeting, voting as a single class and on an as-converted basis. Certain TorreyPines officers and directors, and their affiliates, have also entered into voting agreements 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 joint proxy statement/prospectus.

Stock Options and Warrants (see page 97)

At the effective time of the merger, each outstanding stock option to purchase TorreyPines common stock not exercised prior to the merger will be assumed by Axonyx and become exercisable (a) for such number of shares of Axonyx common stock as is determined by multiplying the number of shares of TorreyPines common stock subject to the option by the exchange ratio and rounding that

result down to the nearest whole number of shares of Axonyx common stock, and (b) at a per share exercise price as is determined by dividing the existing exercise price of the option by the exchange ratio and rounding that result up to the nearest whole cent. For more information, please see the section entitled "The Merger Agreement Merger Consideration and Adjustment" in this joint proxy statement/prospectus.

At the effective time of the merger, each outstanding warrant to purchase shares of TorreyPines Series A preferred stock, Series B preferred stock, Series C-2 preferred stock and common stock not terminated or exercised at or prior to the merger will be assumed by Axonyx and will exercisable (a) for such number of shares of Axonyx common stock as is determined by multiplying the number of shares of TorreyPines common stock, or the number of shares of TorreyPines common stock issuable upon conversion of the shares of TorreyPines preferred stock issuable upon exercise of such warrant, as applicable, that were subject to such warrant prior to the effective time of the merger by the exchange ratio and rounding that result down to the nearest whole number of shares of Axonyx common stock, and (b) at a per share exercise price determined by dividing the per share exercise price of the TorreyPines preferred stock or common stock subject to each warrant as in effect immediately prior to the effective time of the merger by the exchange ratio and rounding that result up to the nearest whole cent.

Material United States Federal Income Tax Consequences of the Merger (see page 101)

Each of TorreyPines and Axonyx expects the merger to qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended, and it is a closing condition to the merger that Axonyx and TorreyPines receive opinions of their respective counsel regarding such qualification. Assuming the merger's qualification as a reorganization, TorreyPines stockholders generally will not recognize gain or loss for U.S. federal income tax purposes upon the exchange of shares of TorreyPines common stock for shares of Axonyx common stock and the exchange of shares of TorreyPines preferred stock for shares of Axonyx common stock and warrants to purchase shares of Axonyx common stock, except with respect to cash received in lieu of fractional shares of Axonyx common stock and except for TorreyPines stockholders who exercise their appraisal rights with respect to the merger. Tax matters are very complicated, and the tax consequences of the merger to a particular stockholder will depend in part on such stockholder's circumstances. Accordingly, you are urged to consult your own 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 foreign income and other tax laws.

Risk Factors (see page 22)

Both Axonyx and TorreyPines 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:

- some of Axonyx's and TorreyPines' officers and directors have interests that are different than your interests that may influence them to support or approve the merger;
- the exchange ratio is not adjustable based on the market price of Axonyx common stock;
- failure to complete the merger may result in Axonyx or TorreyPines paying a termination fee or certain expenses to the other and could harm Axonyx's or TorreyPines' common stock price and future business and operations;
- the merger may be completed even though material adverse changes may result from the announcement of the merger, from industry-wide changes and from other causes;
- the market price of the combined company's common stock may decline as a result of the merger;

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

during the pendency of the merger, Axonyx and TorreyPines may not be able to enter into a business combination with another party at a favorable price because of restrictions in the merger agreement.

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

Regulatory Approvals (see page 101)

As of the date of this joint proxy statement/prospectus, neither Axonyx nor TorreyPines is required to make filings or to obtain approvals or clearances from any antitrust regulatory authorities in the U.S. or other countries to consummate the merger. In the U.S., Axonyx must comply with applicable federal and state securities laws and the rules and regulations of the NASDAQ Capital Market in connection with the issuance of shares of Axonyx common stock and the merger warrants and the filing of this joint proxy statement/prospectus with the U.S. Securities and Exchange Commission, or SEC. As of the date hereof, the registration statement of which this joint proxy statement/prospectus is a part has not become effective.

NASDAQ Listing (see page 104)

Prior to consummation of the merger, Axonyx intends to file an initial listing application with the NASDAQ Global Market pursuant to NASDAQ's "reverse merger" rules. If such application is accepted, Axonyx anticipates that its common stock will be listed on the NASDAQ Global Market following the closing of the merger under the trading symbol "TPTX".

Anticipated Accounting Treatment (see page 105)

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

Appraisal Rights and Dissenters' Rights (see pages 105 and 157)

Under Delaware law, TorreyPines stockholders are entitled to appraisal rights in connection with the merger. Holders of Axonyx common stock are not entitled to appraisal rights in connection with the merger. For more information about appraisal rights, see the provisions of Section 262 of the Delaware General Corporation Law, referred to as the DGCL, attached to this joint proxy statement/prospectus as *Annex C*, and the section entitled "The Merger Appraisal Rights" in this joint proxy statement/prospectus.

Under Nevada law, Axonyx stockholders are entitled to dissenters' rights in connection with the proposed reincorporation of Axonyx, and Axonyx stockholders who would receive in connection with the reverse stock split cash in lieu of a fractional share of Axonyx stock will be entitled to certain dissenters' rights in connection with the proposed reverse stock split. For more information about Axonyx dissenters' rights, see the provisions of the Nevada Revised Statutes, referred to as the NRS, attached to this joint proxy statement/prospectus as *Annex D* and the sections entitled "Axonyx Proposal No. 2: Approval of the Amendment to Axonyx's Articles of Incorporation Effecting the Reverse Stock Split Dissenters' Rights" and "Axonyx Proposal No. 4: Approval of Change of Axonyx's State of Incorporation from Nevada to Delaware Dissenters' Rights" in this joint proxy statement/prospectus.

Comparison of Stockholder Rights (see pages 143 and 279)

Axonyx is currently incorporated under the laws of the State of Nevada. Accordingly, the rights of the stockholders of Axonyx are currently governed by the NRS and Axonyx's articles of incorporation and bylaws, which were created under Nevada law. TorreyPines is currently incorporated under the laws of the State of Delaware. Accordingly, the rights of the stockholders of TorreyPines are currently governed by the DGCL and TorreyPines' certificate of incorporation and bylaws, which were created under Delaware law. If Axonyx Proposal No. 4 is approved by Axonyx's stockholders, at the time of the completion of the merger, Axonyx will be reincorporated in the State of Delaware and, accordingly, the rights of the stockholders of Axonyx following the reincorporation will be governed by the DGCL and by a new certificate of incorporation, attached to this joint proxy statement/prospectus as *Annex G,* and new bylaws, attached to this joint proxy statement/prospectus as *Annex H,* of Axonyx created under Delaware law. If the merger is completed, TorreyPines stockholders will be entitled to become stockholders of Axonyx, and, assuming approval of Axonyx Proposal No. 4, their rights following the merger will also be governed by the DGCL and by the new certificate of incorporation and bylaws of Axonyx created under Delaware law. The rights of current Axonyx stockholders differ from the rights of Axonyx stockholders following the reincorporation and the merger, as more fully described under the section entitled "Axonyx Proposal No. 4: Approval of Change of Axonyx's State of Incorporation from Nevada to Delaware" in this joint proxy statement/prospectus. The rights of TorreyPines stockholders differ from the rights of Axonyx stockholders following the reincorporation and the merger, as more fully described under the section entitled "Comparison of Rights of Holders of Axonyx Stock and TorreyPines Stock" in this joint proxy statement/prospectus.

Adoption of the Axonyx 2006 Equity Incentive Plan (see page 161)

Axonyx stockholders are being asked to approve the adoption of the Axonyx 2006 Equity Incentive Plan, contingent upon and effective as of immediately following the effective time of the merger. The affirmative vote of the holders of a majority of the Axonyx common stock having voting power present in person or represented by proxy at the Axonyx annual meeting is required for approval of Axonyx Proposal No. 5.

SELECTED HISTORICAL AND UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL DATA

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

Selected Historical Consolidated Financial Data of Axonyx

The selected financial data as of December 31, 2005 and 2004 and for the years ended December 31, 2005, 2004 and 2003 are derived from Axonyx's U.S. consolidated financial statements prepared using accounting principles generally accepted in the United States, referred to as GAAP, which have been audited by Eisner LLP, independent registered public accounting firm, and are included in this joint proxy statement/prospectus. The selected financial data as of December 31, 2003, 2002 and 2001 and for the years ended December 31, 2002 and 2001 are derived from Axonyx's consolidated financial statements, which have been audited by Eisner LLP, independent registered public accounting firm, and are not included in this joint proxy statement/prospectus. The statement of operations data for the six months ended June 30, 2006 and 2005, as well as the balance sheet data as of June 30, 2006 are derived from Axonyx's unaudited condensed consolidated financial statements included in this joint proxy statement/prospectus. The financial data should be read in conjunction with "Axonyx's Management's Discussion and Analysis of Financial Condition and Results of Operations" and Axonyx's consolidated and condensed consolidated financial statements and related notes appearing elsewhere in this joint proxy statement/prospectus. The historical results are not necessarily indicative of results to be expected in any future period.

	Years Ended December 31,					Six Months Ended June 30, (unaudited)	
	2005	2004	2003	2002	2001	2006	2005
	(In thousands, except per share data)						
Statement of Operations Data:							
Total revenues	$ 403	$ 2,275	$ 1,000	$ 0	$ 0	$ 0	$ 403
Research and development expenses	24,621	23,741	5,821	3,852	5,153	5,619	16,673
General and administrative expenses	5,143	8,250	3,459	2,505	3,277	3,553	2,876
Loss from operations	(29,571)	(30,883)	(8,280)	(6,357)	(8,430)	(9,172)	(19,356)
Net loss	(28,614)	(28,780)	(8,106)	(6,256)	(8,144)	(8,200)	(18,612)
Net loss per share	(.53)	(.58)	(.30)	(.36)	(.53)	(.15)	(.35)
Weighted average shares outstanding (in thousands)	53,668	49,977	27,207	17,265	15,423	53,681	53,661

	As of December 31,					As of June 30, 2006 (unaudited)
	2005	2004	2003	2002	2001	
	(In thousands)					
Selected Consolidated Balance Sheet Data:						
Cash, cash equivalents and short-term investments	$ 58,338	$ 90,591	$ 28,780	$ 4,474	$ 9,115	$ 50,730
Total assets	64,042	101,394	28,815	7,984	9,211	55,472
Accumulated deficit	(91,122)	(62,508)	(33,728)	(25,622)	(19,366)	(99,322)
Total stockholders' equity	58,383	86,538	26,651	6,649	8,191	51,026

Selected Historical Financial Data of TorreyPines

The selected financial data as of December 31, 2004 and 2005 and for the years ended December 31, 2003, 2004 and 2005 are derived from the audited consolidated financial statements of TorreyPines, included in this joint proxy statement/prospectus. The selected financial data as of December 31, 2001, 2002 and 2003 and for the years ended December 31, 2001 and 2002 are derived from the audited consolidated financial statements of TorreyPines, not included in this joint proxy statement/prospectus. The statement of operations and cash flow data for the three and six months ended June 30, 2005 and 2006, as well as the balance sheet data as of June 30, 2006 are derived from the unaudited consolidated financial statements of TorreyPines, included in this joint proxy statement/prospectus. The financial data should be read in conjunction with "TorreyPines' Management's Discussion and Analysis of Financial Condition and Results of Operations" and TorreyPines' financial statements and related notes appearing elsewhere in this joint proxy statement/prospectus. The historical results are not necessarily indicative of results to be expected in any future period.

	Year Ended December 31,					For the Six Months Ended June 30, (unaudited)	
	2001	2002	2003	2004	2005	2005	2006
	(In thousands, except per share amounts)						
Statement of Operations Data:							
Revenue	$ 3,780	$ 2,818	$ 3,644	$ 3,551	$ 7,967	$ 3,392	$ 4,925
Operating expenses:							
Research and development	6,516	8,158	14,729	11,373	17,314	7,171	13,144
General and administrative	827	1,261	1,627	2,398	2,583	1,184	1,278
Stock-based compensation			8	7	8	3	54
Total operating expenses	7,343	9,419	16,364	13,778	19,905	8,358	14,476
Loss from operations	(3,563)	(6,601)	(12,720)	(10,227)	(11,938)	(4,966)	(9,551)
Interest income (expense), net	145	(169)	(383)	(125)	484	247	17
Gain (loss) on asset disposal				(4)	(88)		2
Net loss	(3,418)	(6,770)	(13,103)	(10,356)	(11,542)	(4,719)	(9,532)
Dividends and accretion to redemption value of redeemable convertible preferred stock	(804)	(1,267)	(1,870)	(2,593)	(4,434)	(2,176)	(2,296)
Net loss attributable to common stockholders	$ (4,222)	$ (8,037)	$ (14,973)	$ (12,949)	$ (15,976)	$ (6,895)	$ (11,828)
Basic and diluted net loss per share attributable to common stockholders	$ (1.44)	$ (2.68)	$ (4.95)	$ (4.22)	$ (4.98)	$ (2.19)	$ (3.58)
Shares used to compute basic and diluted net loss per share attibutable to common stockholders	2,929,494	2,997,931	3,022,222	3,067,283	3,205,593	3,145,116	3,299,594

	As of December 31,					As of June 30, (unaudited)
	2001	2002	2003	2004	2005	2006
	(in thousands)					
Selected Balance Sheet Data:						
Cash and cash equivalents	$ 12,523	$ 16,072	$ 9,293	$ 27,629	$ 28,757	$ 26,863
Working capital	11,203	14,245	6,541	24,357	24,806	20,860
Total assets	16,268	20,526	12,942	29,888	31,104	28,961
Long-term debt, net of current portion	1,387	1,751	2,233	591	3,826	5,975

	As of December 31,					As of June 30, (unaudited)
	2001	2002	2003	2004	2005	2006
Redeemable convertible preferred stock	17,952	29,236	35,806	67,584	72,018	80,637
Accumulated deficit	(6,915)	(14,952)	(29,925)	(42,874)	(58,850)	(70,679)
Total stockholders' deficit	(6,826)	(14,861)	(29,472)	(42,381)	(58,341)	(69,698)
Other Data: (years ended December 31)						
Net cash used in operating activities	(403)	(5,776)	(12,889)	(8,291)	(911)	(12,655)
Net cash used in investing activities	(1,763)	(1,871)	(264)	(54)	(702)	(133)
Net cash provided by financing activities	10,114	11,196	6,374	26,710	2,729	10,695

Selected Unaudited Pro Forma Condensed Combined Financial Data of Axonyx and TorreyPines
(In thousands, except per share amounts)

The following selected unaudited pro forma condensed combined financial information was prepared using the purchase method of accounting. For accounting purposes, TorreyPines is considered to be acquiring Axonyx in the merger. TorreyPines' and Axonyx's unaudited pro forma condensed combined balance sheet data assume that the merger took place on June 30, 2006 and combine TorreyPines' historical consolidated balance sheet at June 30, 2006 with Axonyx's historical condensed consolidated balance sheet at June 30, 2006. TorreyPines' and Axonyx's unaudited pro forma condensed combined statement of operations data assume that the merger took place as of January 1, 2005 and January 1, 2006, respectively. The unaudited pro forma condensed combined statement of operations data for the year ended December 31, 2005 combine TorreyPines' historical consolidated statement of operations for the year then ended with Axonyx's historical consolidated statement of operations for the year then ended. The unaudited pro forma condensed combined statement of operations data for the six months ended June 30, 2006 combine TorreyPines' historical consolidated statement of operations for the six months then ended with Axonyx's historical condensed consolidated statement of operations for the six months ended June 30, 2006.

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 six months ended June 30, 2006 and for the year ended December 31, 2005 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 entitled "Unaudited Pro Forma Condensed Combined Financial Statements" in this joint proxy statement/prospectus.

	For the Year Ended December 31, 2005	For the Six Months Ended June 30, 2006
Unaudited Pro Forma Condensed Combined Statement of Operations Data:		
Total revenue	$ 8,370	$ 4,925
Research and development expenses	41,935	18,763
General and administrative expenses	7,726	4,831
Stock-based compensation expense	8	54
Cost of product sales	210	
Loss from operations	(41,509)	(18,723)
Net loss	(40,156)	(17,732)
Basic and diluted net loss per share	$ (0.33)	$ (0.15)

	As of June 30, 2006
Unaudited Pro Forma Condensed Combined Balance Sheet Data:	
Cash, cash equivalents and short-term investments	$ 77,593
Working capital	60,407
Total assets	84,433
Long-term obligations, less current portion	5,975
Stockholders' equity	54,888

Comparative Historical and Unaudited Pro Forma Per Share Data

The following information does not give effect to the reverse stock split of Axonyx common stock described in Axonyx Proposal No. 2.

The information below reflects the historical net loss and book value per share of Axonyx common stock and the historical net loss and book value per share of TorreyPines common stock in comparison with the unaudited pro forma net loss and book value per share after giving effect to the proposed merger of Axonyx with TorreyPines on a purchase basis.

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

AXONYX

	Year Ended December 31, 2005	Six Months Ended June 30, 2006
Historical Per Common Share Data:		
Net loss per common share basic and diluted	$ (0.53)	$ (0.15)
Book value per share	$ 1.09	$ 0.95

TORREYPINES

	Year Ended December 31, 2005	Six Months Ended June 30, 2006
Historical Per Common Share Data:		
Net loss attributable to common stockholders basic and diluted	$ (4.98)	$ (3.58)
Book value per share	$ (17.70)	$ (20.94)

TORREYPINES AND AXONYX

	Year Ended December 31, 2005	Six Months Ended June 30, 2006
Combined Unaudited Pro Forma Per Share Data:		
Net loss per common share basic and diluted	$ (0.33)	$ (0.15)
Book value per combined share	$ 0.53	$ 0.45

MARKET PRICE AND DIVIDEND INFORMATION

Axonyx common stock is listed on the NASDAQ Capital Market under the symbol "AXYX". The following table presents, for the periods indicated, the range of high and low per share sales prices for Axonyx common stock as reported on the NASDAQ Capital Market for each of the periods set forth below. TorreyPines is a private company and its common stock and preferred stock are not publicly traded.

Axonyx Common Stock

	High	Low
Year Ended December 31, 2004		
First Quarter	$ 7.85	$ 4.60
Second Quarter	$ 8.75	$ 4.57
Third Quarter	$ 6.14	$ 3.24
Fourth Quarter	$ 7.49	$ 5.10
Year Ended December 31, 2005		
First Quarter	$ 6.28	$ 1.15
Second Quarter	$ 1.63	$ 1.10
Third Quarter	$ 1.58	$ 0.99
Fourth Quarter	$ 1.19	$ 0.79
Year Ending December 31, 2006		
First Quarter	$ 1.25	$ 0.83
Second Quarter	$ 1.45	$ 0.80
Third Quarter (through August 23, 2006)	$ 0.90	$ 0.83

Because the market price of Axonyx common stock is subject to fluctuation, the market value of the shares of Axonyx common stock that TorreyPines securityholders will be entitled to receive in the merger may increase or decrease.

Assuming approval of Axonyx Proposal No. 3 and successful application for initial listing with the NASDAQ Global Market, following the consummation of the merger, Axonyx common stock will be listed on the NASDAQ Global Market and will trade under the combined company's new name, "TorreyPines Therapeutics, Inc." and new trading symbol, "TPTX".

As of August 14, 2006, the record date for the Axonyx annual meeting, Axonyx had approximately 334 holders of record of its common stock. As of August 14, 2006, the record date for the TorreyPines special meeting, TorreyPines had approximately 50 holders of record of its common stock and approximately 29 holders of record of its preferred stock. For detailed information regarding the beneficial ownership of certain stockholders of the combined company upon consummation of the merger, see the section entitled "Principal Stockholders of Combined Company" in this joint proxy statement/prospectus.

Dividends

Axonyx has never declared or paid any cash dividends on its capital stock nor does it intend to do so in the foreseeable future. Any future determination to pay cash dividends will be at the discretion of Axonyx's board of directors and will depend upon its financial condition, operating results, capital requirements, any applicable contractual restrictions and such other factors as Axonyx's board of directors deems relevant.

TorreyPines has never declared or paid any cash dividends on its capital stock nor does it intend to do so in the foreseeable future.

RISK FACTORS

The combined company 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 joint proxy statement/prospectus, you should carefully consider the material risks described below before deciding how to vote your shares of common stock.

Risks Related to the Merger

Some of Axonyx's and TorreyPines' officers and directors have conflicts of interest that may influence them to support or approve the merger with regard to your interests.

Certain officers and directors of Axonyx and TorreyPines 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 company, severance benefits, the acceleration of stock option vesting, continued indemnification and the potential ability to sell an increased number of shares of common stock of the combined company. For example, Axonyx has entered into a change of control agreement with each of its executive officers that may result in the receipt by such executive officers of cash severance payments and other benefits with a total value of approximately $2.6 million (collectively, not individually, and excluding the value of any accelerated vesting of stock options or lapsing of any post-termination stock option exercise restrictions) and the acceleration of certain stock options held by those officers to purchase shares of Axonyx common stock, based on data available as of August 23, 2006 and assuming a qualifying termination of employment of each executive officer's employment as of such date. In addition, the closing of the merger will result in the acceleration of vesting of the stock options to purchase approximately 1,110,625 shares of Axonyx common stock held by Axonyx's executive officers and directors, whether or not there is a qualifying termination of such officer's employment, and certain Axonyx and TorreyPines directors will continue to serve on the board of directors of the combined company following the consummation of the merger. These interests, among others, may influence the officers and directors of Axonyx and TorreyPines to support or approve the merger. For a more information concerning the interests of Axonyx's and TorreyPines' executive officers and directors, see the sections entitled "The Merger Interests of Axonyx's Directors and Executive Officers in the Merger" and "The Merger Interests of TorreyPines' Directors and Executive Officers in the Merger" in this joint proxy statement/prospectus.

The exchange ratio is not adjustable based on the market price of Axonyx 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 TorreyPines common and preferred stock, and the exchange ratio is only adjustable upward or downward upon an Axonyx permitted out-license or a TorreyPines permitted out-license prior to closing the transaction. Any changes in the market price of the Axonyx common stock will not affect the number of shares TorreyPines securityholders will be entitled to receive pursuant to the merger. Therefore, if the market price of the Axonyx common stock declines from the market price on the date of the merger agreement prior to the closing of the merger, TorreyPines securityholders could receive merger consideration with considerably less value. Similarly, if the market price of the Axonyx common stock increases from the market price on the date of the merger agreement prior to the closing of the merger, TorreyPines securityholders could receive merger consideration with considerably more value than their shares of TorreyPines capital stock and the Axonyx stockholders immediately prior to the merger will not be compensated for the increased market value of the Axonyx common stock. The merger agreement does not include a price-based termination right. Because the exchange ratio does not adjust as a result of changes in the value of Axonyx common stock, for each one percentage point that the market value of Axonyx 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 TorreyPines securityholders. For

example, on June 7, 2006, the date of the execution of the merger agreement, the closing price of Axonyx common stock, as reported on the NASDAQ Global Market, was $0.95 per share. Assuming that a total of 68.0 million shares of Axonyx common stock are issued to TorreyPines stockholders upon the closing of the merger at a per share value of $0.95 per share, the aggregate merger consideration to be issued to TorreyPines stockholders in the merger would be approximately $64.6 million. If, however, the closing price of Axonyx common stock on the date of closing of the merger had declined from $0.95 per share to, for example, $0.76 per share, a decline of 20%, the aggregate merger consideration to be issued to TorreyPines stockholders in the merger would decrease from approximately $64.6 million to approximately $51.7 million, a decline of $12.9 million or 20%.

Failure to complete the merger may result in Axonyx or TorreyPines paying a termination fee or expenses to the other and could harm Axonyx's or TorreyPines' common stock price and future business and operations.

If the merger is not completed, Axonyx or TorreyPines are subject to the following risks:

- if the merger agreement is terminated under certain circumstances, Axonyx or TorreyPines will be required to pay the expenses of the other party, up to a maximum of $1 million;
- if the merger agreement is terminated under certain circumstances, Axonyx or TorreyPines will be required to pay the other party a termination fee of $2 million, less any expenses of the other party already paid;
- the price of Axonyx stock may decline; and
- costs related to the merger, such as legal and accounting fees which Axonyx and TorreyPines estimate will total approximately $0.8 million and $0.8 million, respectively, must be paid even if the merger is not completed.

In addition, if the merger agreement is terminated and Axonyx's or TorreyPines' board of directors determines to seek another business combination, there can be no assurance that it will be able to find a partner willing to provide equivalent or more attractive consideration than the consideration to be provided by each party in 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 Axonyx or TorreyPines can refuse to complete the merger if there is a material adverse change affecting the other party between June 7, 2006, 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 would have a material adverse effect on Axonyx or TorreyPines, including:

- changes due to the announcement or pendency of the merger;
- changes resulting from or relating to any change in accounting requirements or principles or any change in applicable laws, rules or regulations or the interpretation thereof; or
- with respect to Axonyx, changes resulting from a change in the stock price or trading volume of Axonyx, excluding any underlying effect that may have caused such change.

If adverse changes occur but Axonyx and TorreyPines must still complete the merger, the combined company's stock price may suffer. This in turn may reduce the value of the merger to the stockholders of TorreyPines.

The market price of the combined company's common stock may decline as a result of the merger.

The market price of the combined company's common stock may decline as a result of the merger for a number of reasons including if:

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

Axonyx and TorreyPines 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 company is unable to realize the strategic and financial benefits currently anticipated from the merger, Axonyx and TorreyPines stockholders will have experienced substantial dilution of their ownership interests in their respective companies without receiving any commensurate benefit.

During the pendency of the merger, Axonyx and TorreyPines 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 business.

Covenants in the merger agreement impede the ability of Axonyx and TorreyPines to make acquisitions 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. In addition, while the merger agreement is in effect and subject to very narrowly defined exceptions, such as an Axonyx permitted out-license or a TorreyPines permitted out-license, each party is 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. Any 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 Axonyx and TorreyPines 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 its reasonable, good faith judgment 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 could reasonably be considered a breach of the board's fiduciary duties. In addition, under certain circumstances Axonyx or TorreyPines would be required to pay a termination fee of $2 million to the other party, including upon termination of the merger agreement by a party's board of directors if it decides to recommend a superior proposal. This termination fee may discourage third parties from submitting alternative takeover proposals to Axonyx or TorreyPines or their stockholders, and may cause the respective boards of directors to be less inclined to recommend an alternative proposal.

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

The outstanding capital stock of TorreyPines 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 TorreyPines. Because the percentage of Axonyx equity to be issued to TorreyPines stockholders was determined based on negotiations between the parties, it is possible that the value of the Axonyx common stock and the merger warrants to be issued in connection with the merger will be greater than the fair market value of TorreyPines. Alternatively, it is possible that the value of the shares of Axonyx common stock and the merger warrants to be issued in connection with the merger will be less than the fair market value of TorreyPines.

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

Even if the merger is approved by the stockholders of Axonyx and TorreyPines, specified conditions must be satisfied or waived to complete the merger. These conditions are described in detail in the merger agreement. Axonyx and TorreyPines cannot assure you that all of the conditions will be satisfied. If the conditions are not satisfied or waived, the merger will not occur or will be delayed, and Axonyx and TorreyPines each may lose some or all of the intended benefits of the merger.

Risks Related to Axonyx

In addition to the other information contained in this joint proxy statement/prospectus, you should carefully consider the material risks described below. As discussed above, Axonyx has entered into the merger agreement with merger sub and TorreyPines pursuant to which merger sub will merge with and into TorreyPines, with TorreyPines as the surviving corporation becoming a wholly owned subsidiary of Axonyx.

Axonyx has had clinical trial failures with its lead compound and may not be able to find a partner to continue development.

Axonyx has not achieved statistical significance in the primary endpoints in the Phase III trials conducted to date with its lead compound, Phenserine. Axonyx is seeking a partner to continue the development of Phenserine, including conducting additional Phase III trials. These trials are costly. Axonyx cannot assure that it will be able to successfully conclude a deal with a partner. If Axonyx does find a partner to continue developing Phenserine, Axonyx cannot assure that the partner will successfully develop or commercialize Phenserine.

Axonyx is a defendant in a class action lawsuit and a stockholder derivative lawsuit which, if determined adversely, could have a material adverse affect on it.

A class action securities lawsuit and a stockholder derivative lawsuit have been filed against Axonyx as described in the section entitled "Axonyx's Business Legal Proceedings" in this joint proxy statement/prospectus. Axonyx is defending against these actions vigorously; however, it does not know what the outcome of these proceedings will be and, if Axonyx does not prevail, Axonyx may be required to pay substantial damages or settlement amounts. Furthermore, regardless of the outcome, Axonyx may incur significant defense costs, and the time and attention of its management may be diverted from normal business operations. If Axonyx is ultimately required to pay significant defense costs, damages or settlement amounts, such payments could materially and adversely affect its operations and results. In any event, publicity surrounding the lawsuits and/or any outcome unfavorable to Axonyx could adversely affect its reputation and share price. The uncertainty associated with substantial unresolved lawsuits could harm Axonyx's business, financial condition and reputation.

Axonyx has certain obligations to indemnify its officers and directors and to advance expenses to such officers and directors. Although Axonyx has purchased liability insurance for its directors and

officers, if its insurance carriers should deny coverage, or if the indemnification costs exceed the insurance coverage, Axonyx may be forced to bear some or all of these indemnification costs directly, which could be substantial and may have an adverse effect on its business, financial condition, results of operations and cash flows. If the cost of Axonyx's liability insurance increases significantly, or if this insurance becomes unavailable, Axonyx may not be able to maintain or increase its levels of insurance coverage for its directors and officers, which could make it difficult to attract or retain qualified directors and officers.

If Axonyx fails to continue to meet all applicable NASDAQ Capital Market requirements and NASDAQ determines to delist its common stock, the delisting could adversely affect the market liquidity of its common stock and the market price of its common stock could decrease.

Axonyx's common stock is listed on the NASDAQ Capital Market. In order to maintain its listing, Axonyx must meet minimum financial and other requirements. If Axonyx is unable to comply with NASDAQ's listing standards, NASDAQ may determine to delist Axonyx's common stock from the NASDAQ Capital Market. On December 21, 2005, Axonyx received notice from NASDAQ stating that it was out of compliance with bid price requirements because the closing bid price for its common stock was below $1.00 per share for 30 consecutive business days. On March 8, 2006 Axonyx received a letter from NASDAQ that it had regained compliance with the $1.00 per share minimum bid price requirement for continued listing on the NASDAQ Capital Market. On August 2, 2006 Axonyx received notice from NASDAQ stating that it was out of compliance with the minimum bid price compliance because the closing price of its common stock had fallen below $1.00 for 30 consecutive business days. In accordance with the NASDAQ Marketplace Rules, Axonyx has until January 29, 2007, (180 calendar days from August 2, 2006) to regain compliance. Axonyx can regain compliance with the minimum bid price rule if the bid price of its common stock closes at $1.00 or higher for a minimum of ten consecutive business days during the initial 180-day period, although NASDAQ may, in its discretion, require Axonyx to maintain a bid price of at least $1.00 per share for a period in excess of ten consecutive business days (but generally no more than 20 consecutive business days) before determining that Axonyx has demonstrated the ability to maintain long-term compliance. If compliance is not achieved by January 29, 2007, Axonyx will be eligible for an additional 180-day compliance period if it meets the NASDAQ Capital Market initial listing criteria as set forth in NASDAQ Marketplace Rule 4310(c) other than the minimum bid price requirement. If Axonyx is not eligible for an additional compliance period, or does not regain compliance during any additional compliance period, NASDAQ will provide written notice to Axonyx that its securities will be delisted. At such time, Axonyx would be able to appeal the delisting determination to a NASDAQ Listing Qualifications Panel. There is no assurance that at the end of this process Axonyx's common stock would continue to be listed on the NASDAQ Capital Market. If Axonyx's common stock is delisted for any reason, it could reduce the value of Axonyx's common stock and its liquidity. Delisting could also adversely affect Axonyx's ability to obtain financing for the continuation of its operations or to use its common stock in acquisitions. Delisting could result in the loss of confidence by suppliers, customers and employees. Delisting would prevent Axonyx from satisfying a closing condition for the merger, and, in such event, TorreyPines may elect not to consummate the merger.

Axonyx has a limited operating history, a large accumulated deficit and may never become profitable.

Axonyx has a limited operating history upon which investors may base an evaluation of its likely future performance. Since Axonyx began operations in 1997 it has been engaged in developing and conducting its research and clinical programs, recruiting outside directors, employees and key consultants, evaluating potential compounds for in-licensing, and consummating patent licensing agreements. To date, Axonyx has not had any in-house laboratory facilities in which to conduct any research and will not have any operational laboratories of its own in the near future. Axonyx has had only limited revenue from license fees in the amount of $3.2 million to date. As of June 30, 2006, Axonyx had an accumulated deficit of $99.3 million and its operating losses are continuing.

Axonyx has no products available for sale and it may never be successful in developing products suitable for commercialization.

With the exception of Phenserine, all of Axonyx's product candidates are at an early stage of development and all of its product candidates will require expensive and lengthy testing and regulatory clearances. None of Axonyx's product candidates have been approved by regulatory authorities. Axonyx has no products available for sale and does not expect to have any products commercially available for several years, if at all. There are many reasons that Axonyx may fail in its efforts to develop its product candidates, including that:

Axonyx's product candidates may be ineffective or toxic or may not receive regulatory approval;

Axonyx's product candidates may be too expensive to manufacture or market or may not achieve broad market acceptance;

Axonyx's product candidates may face generic competition by the time they reach the market place and therefore preclude a return on its investment;

third parties may hold proprietary rights that may preclude Axonyx from developing or marketing its product candidates; or

third parties may market equivalent or superior products.

The success of Axonyx's business depends upon its ability to successfully in-license compounds and develop potential product candidates.

Axonyx cannot assure investors that its efforts will lead to the successful identification and in-licensing of potential compounds, or if so licensed, that its efforts will lead to the successful development of any therapeutic agents. If any potential products are identified, they will require significant additional research, development, and clinical testing, regulatory approval and substantial additional investment prior to commercialization. Any potential products Axonyx identifies may not be successfully developed, prove to be safe and efficacious in clinical trials, meet applicable regulatory standards, or be capable of being produced in commercial quantities at acceptable costs or be successfully marketed.

Axonyx does not currently nor does it intend to engage in drug discovery for product candidate acquisition. Axonyx's strategy for obtaining additional product candidates is to utilize the relationships of its management team and scientific consultants to identify product candidates for in-licensing from companies, universities, research institutions and other organizations. It is possible that Axonyx may not succeed in acquiring additional drug candidates on acceptable terms or at all.

Axonyx's product candidates may not successfully complete clinical trials required for commercialization, and as a result its business may never achieve profitability.

To obtain regulatory approvals needed for the sale of its product candidates, Axonyx must demonstrate through testing and clinical trials that each product candidate is both safe and effective for the human population that it was intended to treat. The clinical trial process is complex and the regulatory environment varies widely from country to country. Positive results from testing and early clinical trials do not ensure positive results in the Phase III human clinical trials. Many companies in Axonyx's industry have suffered significant setbacks in Phase III, potentially pivotal clinical trials, even after promising results in earlier trials. The results from Axonyx's trials, if any, may show that its drug candidates produce undesirable side effects in humans or that its product candidates are not safe or effective or not safe or effective enough to compete in the marketplace. Such results could cause Axonyx or regulatory authorities to interrupt, delay or halt clinical trials of a product candidate. Moreover, Axonyx, the FDA or foreign regulatory authorities may suspend or terminate clinical trials at any time if Axonyx or they believe the trial participants face unacceptable health risks or that Axonyx's

product candidates are not safe or effective enough. Clinical trials are lengthy and expensive. They require adequate supplies of drug substance and sufficient patient enrollment. Patient enrollment is a function of many factors, including:

- the size of the patient population;
- the nature of the protocol (i.e., how the drug is given, and the size and frequency of the dose and use of placebo control);
- the proximity of patients to clinical sites; and
- the eligibility criteria for the clinical trial (i.e., age group, level of symptoms, concomitant diseases or medications etc.).

Delays in patient enrollment or negative trial outcomes can result in increased costs and longer development times. Even if Axonyx successfully completes clinical trials, it may not be able to file any required regulatory submissions in a timely manner and may not receive regulatory approval for the particular drug candidate that was tested.

In addition, if the FDA or foreign regulatory authorities require additional clinical trials, Axonyx could face increased costs and significant development delays. Changes in regulatory policy or additional regulations adopted during product development and regulatory review of information Axonyx submits could also result in delays or rejections.

Axonyx cannot assure investors that it will have future revenue or operating profits and investors in Axonyx common stock could lose their entire investment.

Axonyx expects to incur substantial operating losses for at least the next several years. Axonyx currently has limited sources of revenue other than interest income and it cannot assure investors that it will be able to develop other revenue sources or that its operations will become profitable, even if Axonyx is able to commercialize any products. Other than interest or similar income and revenue generated by OXIS International, Inc., referred to as OXIS, in which Axonyx held a majority interest prior to December 31, 2004, and whose results were consolidated with Axonyx's through February 28, 2005, the only revenue that Axonyx has realized to date has been fees totaling $2.8 million paid by Applied Research Systems ARS Holding N.V., or ARS, a subsidiary of Serono International, S.A., under the terms of the Development Agreement and Right to License and the subsequent License Agreement. Axonyx is negotiating a reacquisition of these rights granted to ARS. If Axonyx does reacquire these rights it will not receive any additional payments under that License Agreement. If Axonyx does not generate significant revenue, at some point in the future it may not be in a position to continue operations and investors could lose their entire investment.

If Axonyx fails to comply with the terms of its licensing agreements, its licensors may terminate certain licenses to patent rights, causing Axonyx to lose valuable intellectual property assets.

Under the terms of Axonyx's licensing agreements with each of its patent licensors, New York University, referred to as NYU, and CURE, LLC, referred to as CURE (Axonyx's rights to certain patents under the CURE license are via a license to CURE from the U.S. Public Health Service, referred to as the PHS, on behalf of the National Institute of Aging), Axonyx's license to the patent rights covering certain of it product candidates may be terminated if Axonyx fails to meet its obligations to the licensors.

Under its research and license agreement with NYU, as amended, Axonyx is obligated to meet certain deadlines for the preclinical and clinical development of the licensed Amyloid Inhibitory Peptide, or AIPs, and the Prion Inhibitory Peptide, or PIPs, technology, payment of royalties, and filing, maintenance and prosecution of the covered patent rights. NYU can terminate the research and license agreement for cause: (a) if Axonyx does not cure within 60 days of notice of a material breach or

default in the performance or observance of any of the provisions of the agreement, (b) if Axonyx fails to pay any amounts due under the agreement, within 30 days after receiving notice from NYU specifying such breach or default, or automatically or (c) immediately without further action, if Axonyx discontinues its business or becomes insolvent or bankrupt.

Axonyx is obligated, under the provisions of the license agreement with CURE to pay certain royalty payments, pay for the filing, prosecution and maintenance of the patent rights covered by the agreement, meet certain development timelines and comply with certain pass through provisions from the license agreement between CURE and the PHS. The reversionary rights provision of the license agreement sets deadlines by which Axonyx is to achieve certain development milestones, including commencing clinical trials, for Phenserine. If Axonyx fails to comply with the development benchmarks or the commercial development plan, or pay the required penalty fees, then all rights to the patents may, at CURE's election, revert to CURE, and the agreement will terminate.

Certain pass through provisions from the license agreement between CURE and the PHS are contained in Axonyx's license agreement with CURE. These pass through provisions are binding on Axonyx as if it is a party to the license agreement with the PHS. Those provisions cover certain reserved government rights to the licensed patents, obligations to meet certain benchmarks and perform a commercial development plan, manufacturing restrictions, as well as indemnification, termination and modification of rights. PHS reserves on behalf of the U.S. government or any foreign government or international organization pursuant to any existing or future treaty or agreement with the U.S. government an irrevocable, nonexclusive, nontransferable, royalty free license for the practice of all inventions licensed pursuant to the license agreement between CURE and PHS for research or other purposes. After making the first commercial sale of licensed products until expiration of the agreement, Axonyx must use its reasonable best efforts to make the licensed products and processes reasonably accessible to the U.S. public. PHS reserves the right to terminate or modify the license agreement if it is determined that such action is necessary to meet requirements for public use specified by federal regulations. Axonyx is also obligated, under these pass through provisions, to manufacture licensed products substantially in the U.S., unless a written waiver is obtained in advance from the PHS. Axonyx undertook to develop and commercialize the licensed products covered by the patents pursuant to a commercial development plan contained in a pass through provision from the CURE-PHS license agreement. If Axonyx fails to cure non-compliance with the commercial development plan after notice from CURE within a reasonable period of time, it could be in material breach of the agreement. Axonyx has not, as of the date of this joint proxy statement/prospectus, received notice of default of any of its obligations from CURE, or the PHS.

If Axonyx receives written notice of its default or material breach of any of its obligations under the licensing agreements, it must cure the default within 90 days under the license with CURE or 60 days (or concerning payments, 30 days) under the license with NYU, or the relevant licensor may terminate the license. After such termination, Axonyx would not be entitled to make any further use whatsoever of the licensed patent rights, or any related licensed know-how. Upon termination of its license agreements, Axonyx is required to return the licensed technology to its licensors.

Axonyx anticipates undertaking similar payment, development milestone, patent prosecution costs, and termination obligations under applications currently pending with The National Institutes of Health, or NIH, for certain patent rights to Posiphen and BNC, if such licenses are granted. Axonyx's business and prospects could be adversely affected if either or both of these licenses are not granted.

The performance of Axonyx's obligations to the licensors will require increasing expenditures as the development of the licensed drug compounds proceeds. Axonyx cannot guarantee that it will have or be capable of raising the funds necessary to meet its obligations under the license agreements, sublicense part or all of its licensed drug compounds to a third party capable of undertaking the obligations, or fulfill additional licensing obligations.

Third party co-ownership concerning certain of Axonyx's in-licensed patent rights could affect any future decision to commercialize certain product candidates.

There are significant risks regarding the patent rights surrounding BNC, Axonyx's potential butyrylcholinesterase inhibitor product candidate, and Posiphen , a potential pharmaceutical compound for the treatment of AD that is the positive isomer of Phenserine. Because Axonyx is not the sole owner of the patent rights, future commercialization of Posiphen or BNC may be adversely impacted by the patent rights held by a third party with whom it does not currently have licensing agreements. Axonyx is currently seeking licenses from the third party to reduce or eliminate the risks relating to its development and commercialization efforts. Such licenses may not be available on acceptable terms or at all and may impair Axonyx's ability to commercialize BNC or Posiphen . A decision not to commercialize these product candidates could adversely affect Axonyx's business.

Axonyx does not currently have the capability to undertake manufacturing, marketing, or sales of any potential products and it has limited personnel to oversee outsourced clinical testing and the regulatory approval process.

Axonyx has not invested in manufacturing, marketing or product sales resources. Axonyx cannot assure investors that it will be able to acquire such resources if and when needed. It is likely that Axonyx would also need to hire additional personnel skilled in the clinical testing and regulatory compliance process if it develops additional product candidates with commercial potential. Axonyx has no history of manufacturing or marketing. Axonyx cannot assure investors that it will successfully manufacture or market any product it may develop, either independently or under manufacturing or marketing arrangements, if any, with other companies. Axonyx currently does not have any arrangements with other companies, and it cannot assure investors that any arrangements with other companies can be successfully negotiated or that such arrangements will be on commercially reasonable terms. To the extent that Axonyx arranges with other companies to manufacture or market its products, if any, the success of such products may depend on the efforts of those other companies. Axonyx does not currently have the capability to conduct clinical testing in-house and does not currently have plans to develop such a capability. Axonyx outsources its clinical testing to contract research organizations, or CROs. Axonyx currently has one employee and certain other outside consultants who oversee the contract research organizations involved in clinical testing of its compounds. Axonyx cannot assure investors that its limited oversight of the contract research organizations will suffice to avoid significant problems with the protocols and conduct of the clinical trials.

Axonyx depends on contract research organizations to do much of its preclinical and all of its clinical testing.

Axonyx has engaged and continues to engage third party CROs, and other third parties to help Axonyx develop its product candidates. Although Axonyx has designed the clinical trials for its product candidates, the CROs have conducted all of its clinical trials. As a result, many important aspects of Axonyx's drug development, preclinical and clinical programs have been and will continue to be outside of its direct control. In addition, the CROs may not perform all of their obligations under arrangements with Axonyx. If the CROs do not perform clinical trials in a satisfactory manner or breach their obligations to Axonyx, the development and commercialization of any product candidate may be delayed or precluded. Axonyx cannot control the amount and timing of resources these CROs devote to its programs or product candidates. The failure of any of these CROs to comply with any governmental regulations would substantially harm Axonyx's development and marketing efforts and delay or prevent regulatory approval of its product candidates. If Axonyx is unable to rely on clinical data collected by others, it could be required to repeat, extend the duration of, or increase the size of its clinical trials and this could significantly delay commercialization and require significantly greater expenditures.

If Axonyx needs additional funds, and if it is unable to raise them, it will have to curtail or cease operations.

Axonyx's drug development programs and the potential commercialization of its product candidates require substantial working capital, including expenses for testing, chemical synthetic scale-up, manufacture of drug substance for preclinical testing and clinical trials, toxicology studies, clinical trials of product candidates, payments to its licensors and potential commercial launch of its product candidates. Axonyx's future working capital needs will depend on many factors, including:

- the progress and magnitude of its drug development programs;
- the scope and results of testing and clinical trials;
- the cost, timing and outcome of regulatory reviews;
- the costs under current and future license and option agreements for its product candidates, including the costs of obtaining and maintaining patent protection for its product candidates;
- the costs of acquiring any technologies or additional product candidates;
- the rate of technological advances;
- the commercial potential of its product candidates;
- the magnitude of its administrative and legal expenses, including office rent; and
- the costs of establishing third party arrangements for manufacturing.

Axonyx has incurred negative cash flow from operations since it incorporated and does not expect to generate positive cash flow from its operations for at least the next several years. Although since January 2004, Axonyx has raised approximately $70 million through financings (less applicable fees) and an additional $13.2 million through the cash exercise of various warrants and options to purchase its common stock, Axonyx expects that additional financings will be required in the future to fund its operations. Axonyx may not be able to obtain adequate financing to fund its operations, and any additional financing it obtains may be on terms that are not favorable to Axonyx. In addition, any future financings (which may include the issuance of warrants issued in connection with such financings) could substantially dilute its stockholders. If adequate funds are not available Axonyx will be required to delay, reduce or eliminate one or more of its drug development programs, to enter into new collaborative arrangements on terms that are not favorable to Axonyx. For example, any such collaborative arrangements could result in the transfer to third parties of rights that Axonyx considers valuable.

Axonyx's business could be harmed if it fails to protect its intellectual property.

Axonyx's patent position, like that of many pharmaceutical companies, is uncertain and involves complex legal and factual questions for which important legal principles are unresolved. Axonyx may not develop or obtain rights to products or processes that are patentable. Even if it does obtain patents, they may not adequately protect the technology Axonyx owns or has in-licensed. In addition, others may challenge, seek to invalidate, infringe or circumvent any patents Axonyx owns or in-licenses, and rights it receives under those patents may not provide competitive advantages to Axonyx. Further, the manufacture, use or sale of Axonyx's products or processes, if any, may infringe the patent rights of others.

Axonyx has licensed rights to certain patented and patent pending proprietary technology from NYU and CURE to which it is obligated to pay royalties if Axonyx or its sub-licensees develop products based upon the licensed technology, and Axonyx has certain license applications pending with NIH. Because of the substantial length of time, effort and expense associated with bringing new products through development and regulatory approval to the marketplace, the pharmaceutical industry places considerable importance on patent and trade secret protection for new technologies, products and processes. Axonyx is obligated to pay the filing, prosecution and maintenance expenses with regard to patents and patent applications it owns or has licensed. Axonyx and its licensors have filed patent

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applications in other countries, and Axonyx may seek additional patents in the future. Axonyx cannot assure investors as to the breadth or degree of protection that any such patents, if issued, will afford Axonyx or that any patents based on the patent applications will be issued at all or that it will be granted licenses to certain patents under its pending license applications. In addition, Axonyx cannot assure investors that others will not independently develop substantially equivalent proprietary information or otherwise obtain access to its know-how or that others may not be issued patents that may require licensing and the payment of significant fees or royalties by Axonyx for the pursuit of its business.

Several pharmaceutical and biotechnology companies, universities and research institutions may have filed patent applications or received patents that cover technologies similar to that of Axonyx. Axonyx's ability to make, use or sell any of its product candidates may be blocked by patents that have been or will be issued to third parties that it may not be aware of. Patent applications are often first published eighteen months or more after filing and the claim scope frequently undergoes substantial change between publication and issuance of a patent. Therefore, until a patent is issued, Axonyx may not be able to determine if a third party has a patent that could preclude Axonyx from commercializing its product candidates. Third party patent applications and patents could significantly reduce the coverage of Axonyx's patents and limit its ability to obtain meaningful patent protection. If other parties obtain patents with conflicting claims, Axonyx may be required to obtain licenses to these patents or to develop or obtain alternative technology. Axonyx may not be able to obtain any such license on acceptable terms or at all. Any failure to obtain such licenses could delay or prevent Axonyx from pursuing the development or commercialization of its product candidates, which would adversely affect its business.

Potential litigation concerning patent rights could involve significant expenses and damage Axonyx's business.

In the U.S., the first to invent a technology is entitled to patent protection on that technology. For patent applications filed prior to January 1, 1996, U.S. patent law provides that a party who invented a technology outside the U.S. is deemed to have invented the technology on the earlier of the date it introduced the invention in the U.S. or the date it filed its patent application. In many foreign countries, the first party to file a patent application on a technology, not the first to invent the technology, is entitled to patent protection on that technology. Under the patent laws of most countries, a product can be found to infringe a third party patent if the third party patent expressly covers the product or method of treatment using the product, or if the third party patent covers subject matter that is substantially equivalent in nature to the product or method, even if the patent does not expressly cover the product or method.

While Axonyx has not received notification of potential infringement of patents held by third parties, with respect to any of its product candidates, litigation, patent opposition and adversarial proceedings could result in substantial costs to Axonyx. Litigation and/or proceedings could be necessary or may be initiated to enforce any patents Axonyx owns or in-licenses, or to determine the scope, validity and enforceability of other parties' proprietary rights and the priority of an invention. The outcome of any of these types of proceedings could significantly affect Axonyx's product candidates and technology. U.S. patents carry a presumption of validity and generally can be invalidated only through clear and convincing evidence.

Under Axonyx's license agreements with NYU and CURE LLC, Axonyx has the right to pursue any actions against third parties for infringement of the patent rights covered by those agreements. Under those arrangements Axonyx is obligated to share any recovery over and above that required for reimbursement of its costs and expenses in bringing the infringement action with its licensors. Under one of those arrangements, Axonyx's failure to affect the discontinuance of any infringement after a certain period of time can reduce its royalty income. An adverse outcome of these proceedings could subject Axonyx to significant liabilities to third parties, require disputed rights to be licensed from third parties or require Axonyx to cease using such technology, any of which could adversely affect its

business. Moreover, the mere uncertainty resulting from the initiation and continuation of any technology related litigation or adversarial proceeding could adversely affect Axonyx's business pending resolution of the disputed matters.

If Axonyx does not exercise its right to prosecute and its licensors institute and prosecute patent proceedings, Axonyx's rights will depend in part upon the manner in which these licensors conduct the proceedings. In any proceedings they elect to initiate and maintain, these licensors may not vigorously pursue or defend or may decide to settle such proceedings on terms that are unfavorable to Axonyx.

Companies and universities that have licensed product candidates to Axonyx for clinical development and marketing are sophisticated competitors that could develop similar products to compete with Axonyx's products.

Licensing product candidates from other companies, universities or individuals does not always prevent them from developing non-identical but competitive products for their own commercial purposes, nor from pursuing patent protection in areas that are competitive with Axonyx. The partners who created these technologies are sophisticated scientists and business people who may continue to do research and development and seek patent protection in the same areas that led to the discovery of the product candidates that they licensed to Axonyx. The development and commercialization of successful new drugs from Axonyx's research program is likely to attract additional research by its licensors in addition to other investigators who have experience in developing products for the memory and cognition market. By virtue of the previous research that led to the discovery of the drugs or product candidates that they licensed to Axonyx, these companies, universities, or individuals may be able to develop and market competitive products in less time than might be required to develop a product with which they have no prior experience.

Despite the use of confidentiality agreements and/or proprietary rights agreements, which themselves may be of limited effectiveness, it may be difficult for Axonyx to protect its trade secrets.

Axonyx relies on trade secrets to protect technology in cases when it believes patent protection is not appropriate or obtainable. However, trade secrets are difficult to protect. While Axonyx requires certain of its academic collaborators, contractors and consultants to enter into confidentiality agreements, Axonyx may not be able to adequately protect its trade secrets or other proprietary information.

Axonyx might face intellectual property claims that may be costly to resolve and could divert management attention.

Axonyx may from time to time be subject to claims of infringement of other parties' proprietary rights. Axonyx could incur substantial costs in defending itself in any suits brought against Axonyx claiming infringement of the patent rights of others or in asserting its patent rights in a suit against another company. Adverse determinations in any litigation could subject Axonyx to significant liabilities to third parties, require Axonyx to seek costly licenses from third parties and prevent Axonyx or its sublicensees from manufacturing and selling its potential products.

If Axonyx's product candidates do not achieve market acceptance, its business may never achieve profitability.

Axonyx's success will depend on the market acceptance of any products it may develop. The degree of market acceptance will depend upon a number of factors, including the receipt and scope of regulatory approvals, the establishment and demonstration in the medical community of the safety and effectiveness of its products and their potential advantages over existing treatment methods, generic competition and reimbursement policies of government and third party payors. Physicians, patients, payors or the medical community in general may not accept or utilize any product that Axonyx may develop.

The carrying value of Axonyx's investment in OXIS International may face future impairment.

Effective March 1, 2005, Axonyx accounted for its investment in OXIS under the equity method of accounting following accounting principles bulletin, or APB, No. 18. Any impairment charge would be required if Axonyx determined that any reduction in the OXIS market value over the carry value was permanent.

Potential technological changes in Axonyx's field of business create considerable uncertainty.

Axonyx is engaged in the biopharmaceutical field, which is characterized by extensive research efforts and rapid technological progress. New developments in AD research are expected to continue at a rapid pace in both industry and academia. Axonyx cannot be assured that research and discoveries by others will not render some or all of its programs or product candidates noncompetitive or obsolete.

Axonyx's business strategy is based in part upon inhibition of amyloid conformational change and amyloid precursor protein production and processing and the application of these new and unproven technologies to the development of biopharmaceutical products for the treatment of AD and other neurological disorders. Axonyx cannot assure investors that unforeseen problems will not develop with these technologies or applications or that commercially feasible products will ultimately be developed by Axonyx.

The markets in which Axonyx seeks to participate are intensely competitive and many of its competitors are larger and have more experience than Axonyx.

There are many companies, both public and private, including well-known pharmaceutical companies, engaged in developing pharmaceutical and biotechnological products for human therapeutic applications in the AD area. Axonyx's major competitors are currently the pharmaceutical companies that are marketing the acetylcholinesterase inhibitors for the treatment of AD. The market for such is dominated primarily by Pfizer with its drug Aricept®. Warner-Lambert (Cognex®), Novartis (Exelon®) and, most recently, Johnson and Johnson (Razadyne®, formerly Reminyl®), have marketed compounds of this type in the U.S. Aricept currently dominates the market with approximately $1 billion in U.S. sales in 2004. Several other pharmaceutical companies have acetylcholinesterase inhibitors in human clinical trials. In addition, Forrest Laboratories received approval for Namenda® in early 2004 for treatment of moderate to severe AD as a monotherapy or in combination with donepezil, a commonly prescribed acetylcholinesterase inhibitor. Namenda® has a different mechanism of action that is focused on the glutamate pathway. These are large pharmaceutical companies with far ranging capabilities to market their products and to develop follow on product candidates. There can be no guarantees that Axonyx will be able to successfully find a partner to further develop Phenserine and obtain regulatory approval for Phenserine and such approval, even if obtained, may be years away. In addition Axonyx does not have the capability or the resources of marketing a drug and will have to enter into a collaborative relationship with a larger pharmaceutical company in order to market Phenserine. As Phenserine is also an acetylcholinesterase inhibitor, like the majority of the currently marketed drugs, unless the data from future Phenserine clinical trials, if any, reflects the general lack of adverse side effects found in previous clinical trials and the unique mechanism of action involving the inhibition of the beta-amyloid precursor protein found in preclinical studies, it will be difficult to distinguish Phenserine from the currently marketed drugs and gain market share.

Certain smaller pharmaceutical companies may also be competitors. Smaller companies may also prove to be competitors through collaborative arrangements with large pharmaceutical and biotechnology companies. Academic institutions, governmental agencies and other public and private research organizations are also becoming increasingly aware of the commercial value of their inventions and are more actively seeking to commercialize the technology they have developed. Many of these companies have substantially greater capital, research and development and human resources and experience than Axonyx and represent significant long-term competition for Axonyx. In addition, many of these competitors have significantly greater experience than Axonyx in undertaking testing and

clinical trials of new pharmaceutical products and obtaining FDA and other regulatory approvals. Furthermore, if Axonyx or its current or any future licensee is permitted to commence commercial sales of any product, Axonyx or its licensee will also be competing with companies that have greater resources and experience in manufacturing, marketing and sales. Axonyx has no experience in these areas. These other companies may succeed in developing products that are more effective or less costly than any that may be developed by Axonyx or its future licensee and may also prove to be more successful than Axonyx or its future licensee in production and marketing. Competition may increase further as a result of the potential advances in the commercial applicability of peptide chemistry and greater availability of capital for investment in these fields. Other companies are engaged in research and product development based on amyloidogenesis and acetylcholinesterase inhibition.

If Axonyx successfully develops and obtains approval for its product candidates, it will face competition based on the safety and effectiveness of its products, the timing and scope of regulatory approvals, the availability of supply, marketing and sales capability, reimbursement coverage, price, patent position and other factors. Axonyx's competitors may develop or commercialize more effective or more affordable products, or obtain more effective patent protection, than Axonyx does. Accordingly, Axonyx's competitors may commercialize products more rapidly or effectively than it does, which could hurt Axonyx's competitive position.

Axonyx cannot assure investors of FDA approval for its potential products and government regulation may impact Axonyx's development plans.

The FDA and comparable agencies in foreign countries impose rigorous safety and efficacy requirements on the introduction of therapeutic pharmaceutical products through lengthy and detailed laboratory and clinical testing procedures and other costly and time-consuming procedures. Satisfaction of these requirements typically takes a number of years and varies substantially based upon the type, complexity and novelty of the pharmaceutical compounds. One of Axonyx's product candidates is currently in preclinical development, and two are in clinical development, and consequently significant regulatory hurdles remain before any application for regulatory approval can be submitted. Only two of Axonyx's product candidates have been tested in human clinical trials. Axonyx cannot assure investors that the product candidates currently in development will elicit similar results in human testing to the results in animal testing. Axonyx cannot predict with any certainty when it may submit product candidates for FDA or other regulatory approval.

Government regulation also affects the manufacture and marketing of pharmaceutical products. The effect of government regulation may be to delay marketing of Axonyx's new products, if any, for a considerable period of time, to impose costly procedures upon its activities and to furnish a competitive advantage to larger companies that compete with Axonyx. Axonyx cannot assure investors that FDA or other regulatory approval for any products developed by Axonyx will be granted on a timely basis, if at all. Any such delay in obtaining, or failure to obtain, such approvals would adversely affect the marketing of Axonyx's products and the ability to generate product revenue. Government regulation may increase at any time creating additional hurdles for Axonyx. The extent of potentially adverse government regulation which might arise from future legislation or administrative action cannot be predicted.

Axonyx is subject to extensive government regulation and may fail to receive regulatory approval that could prevent or delay the commercialization of its products, if any.

Any approval of Axonyx's product candidates may be contingent on post-marketing studies or other conditions and the approval of any of its product candidates may limit the indicated uses of the product candidate. Further, even if Axonyx's product candidates receive regulatory approval, it may still face difficulties in entering into collaborative arrangements for the marketing and manufacturing of those product candidates. A marketed product, its manufacturer and the manufacturer's facilities are subject to continual review and periodic inspections. The FDA requires that all preclinical and clinical

testing, as well as manufacturing of drug product, meet certain criteria commonly referred to in Axonyx's industry as Good Practices guidelines, including Good Manufacturing Processes, Good Laboratory Practices and Good Clinical Practices. In Axonyx's case, CROs and academic or other sponsored research laboratories that it utilizes for its preclinical and clinical research, as well as active pharmaceutical ingredient manufacturing of drug product, must comply with these guidelines. Axonyx's contracted manufacturers, sponsored research labs and CROs undertake to adhere to Good Manufacturing Processes, Good Laboratory Practices and Good Clinical Practices. In addition, such guidelines and practices may change, and Axonyx's compliance with such changes may have an adverse effect on its business.

The discovery of non-compliance with regulatory requirements with respect to a product, manufacturer or facility may result in restrictions on the product or manufacturer, including withdrawal of the product from the market. The failure to comply with applicable regulatory requirements can, among other things, result in any or all of the following:

fines;

suspended regulatory approvals;

refusal to approve pending applications;

refusal to permit exports from the U.S.;

product recalls;

seizure of products;

injunctions;

operating restrictions; and

criminal prosecutions.

Health care reform measures and third party reimbursement practices are uncertain and may adversely impact the commercialization of Axonyx's products, if any.

The efforts of governments and third party payors to contain or reduce the cost of health care will continue to affect the business and financial condition of drug companies. A number of legislative and regulatory proposals to change the health care system have been proposed in recent years. In addition, an increasing emphasis on managed care in the U.S. has and will continue to increase pressure on drug pricing. While Axonyx cannot predict whether legislative or regulatory proposals will be adopted or what effect those proposals or managed care efforts may have on its business, the announcement and/or adoption of such proposals or efforts could have an adverse effect on Axonyx's decisions to proceed with the development of its product candidates and/or adversely effect its potential future profit margins and financial condition. Sales of prescription drugs depend significantly on the availability of reimbursement to the consumer from third party payors, such as government and private insurance plans. These third party payors frequently require that drug companies give them predetermined discounts from list prices, and they are increasingly challenging the prices charged for medical products and services. Axonyx expects that reimbursement pressures will continue in the future. If Axonyx succeeds in bringing, through collaborative arrangements, one or more products to the market, these products may not be considered cost effective and reimbursement to the consumer may not be available or sufficient to allow Axonyx to sell its products on a competitive basis.

In addition, third-party payors may discontinue or limit reimbursement for, or the use of, the types of drugs being developed by Axonyx. For example, in the United Kingdom, the National Institute for Clinical Excellence, or NICE, recently recommended that National Health Service doctors not prescribe three drugs Aricept, Exelon and Razadyne (formerly Reminyl) to new patients with mild to moderate dementia on the grounds that they are not sufficiently beneficial. These products are

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competitive with Axonyx's product candidate Phenserine. If similar action is taken by regulators in the European Community or the U.S., the potential market for Phenserine will be significantly diminished.

If product liability lawsuits are successfully brought against Axonyx, it may incur substantial liabilities and may be required to limit commercialization of its products.

The testing and marketing of product candidates entail an inherent risk of product liability. If Axonyx cannot successfully defend itself against liability claims, it may incur substantial liabilities or be required to limit commercialization of its products. Axonyx's inability to obtain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of pharmaceutical products it develops, alone or with corporate collaborators. Axonyx currently carries clinical trial insurance but does not carry product liability insurance. Axonyx currently maintains clinical trial insurance in the amount of $5,000,000. When Axonyx decides that product liability insurance is necessary, it may not be able to obtain product liability insurance at a reasonable cost, if at all. While under various circumstances Axonyx is entitled to be indemnified against losses by its corporate collaborators, indemnification may not be available or adequate should any claims arise.

Generic competition for Alzheimer's drugs currently on the market could materially impact Axonyx's future operations.

There are a number of products already on the U.S. market for treatment of AD. For instance, Namenda (memantine hydrochloride), Aricept (donepezil hydrochloride), Razadyne, formerly Reminyl (galantamine hydrobromide or R113675), and Exelon (rivastigmine) are presently being sold in the U.S. for the treatment of AD. The respective primary patents for these products are set to expire (taking into account patent term extensions under 35 U.S.C. § 156) as follows:

Trademark Name	US Patent	Present Patent Expiration date
Namenda	5,061,703	April 11, 2010
Aricept	4,895,841	Nov. 25, 2010
Razadyne, formerly Reminyl	4,663,318	Dec. 14, 2008
Exelon	4,948,807	Aug. 14, 2007

If Axonyx or one of its future prospective competitors who already has a drug on the market cannot successfully defend the patents protecting the products from challenge by a generic drug manufacturer, and a generic manufacturer were thus able to enter the market, Axonyx's results of operations could be materially adversely affected. Currently at least Watson Pharmaceuticals and Ranbaxy, Inc. have obtained tentative approval from the FDA to market a generic version of rivastigmine. The owner of U.S. Patent 4,948,807 is in the early stages of enforcing its patent rights against the generic manufacturers.

Axonyx does not pay cash dividends.

Axonyx has never paid cash dividends and does not presently intend to pay any cash dividends in the foreseeable future.

There is only a limited trading market for Axonyx's common stock and it is possible that investors may not be able to sell their shares easily.

There is currently only a limited trading market for Axonyx's common stock. Axonyx's common stock trades on the NASDAQ Capital Market under the symbol "AXYX" with, until recently, very limited trading volume. Axonyx cannot assure investors that a substantial trading market will be sustained for its common stock.

The market price of Axonyx's stock may be adversely affected by market volatility.

The market price of Axonyx's common stock is likely to be volatile and could fluctuate widely in response to many factors, including:

- announcements of the results of clinical trials by Axonyx or its competitors;
- developments with respect to patents or proprietary rights;
- announcements of technological innovations by Axonyx or its competitors;
- announcements of new products or new contracts by Axonyx or its competitors;
- actual or anticipated variations in Axonyx's operating results due to the level of drug development expenses and other factors;
- changes in financial estimates by securities analysts and whether Axonyx's potential earnings or losses meet or exceed such estimates;
- conditions and trends in the pharmaceutical and other industries including the successful market launch of competing products or unfavorable pricing conditions;
- new accounting standards;
- general economic, political and market conditions and other factors; and
- the occurrence of any of the risks described in these "Risk Factors Risks Related to Axonyx."

In the past two years, the price range of the bid quotations for Axonyx's common stock has been between a high of $7.49 and a low of $0.80. In the past, following periods of volatility in the market price of the securities of companies in Axonyx's industry, securities class action litigation, such as the lawsuits that have been filed against Axonyx, has often been instituted against those companies. Please see the section entitled "Axonyx's Business Legal Proceedings" in this joint proxy statement/prospectus.

Declines in Axonyx's stock price might harm its ability to issue equity under future potential financing arrangements. The price at which Axonyx issues shares in such transactions is generally based on the market price of its common stock and a decline in its stock price would result in Axonyx needing to issue a greater number of shares to raise a given amount of funds or acquire a given amount of goods or services. For this reason, a decline in Axonyx's stock price might also result in increased ownership dilution to its stockholders.

The future issuance of common stock upon exercise of warrants and stock options may depress the price of Axonyx's common stock.

As of August 23, 2006, Axonyx had outstanding options to purchase an aggregate of 5,504,619 shares of its common stock to its employees, officers, directors, and consultants under its existing option plans. Axonyx may issue options to purchase an additional 2,493,861 shares of its common stock under the option plans.

In addition, Axonyx has granted options to purchase an aggregate of 343,000 shares of common stock outside of its stock option plans to consultants and others. These options were all granted prior to June 30, 2003.

There are currently outstanding warrants to purchase an aggregate of 7,107,116 shares of Axonyx common stock.

During the respective terms of the warrants and options granted or to be granted under Axonyx's stock option plans or otherwise, the holders thereof are given an opportunity to benefit from a rise in the market price of the common stock, with a resultant dilution of the interests of existing stockholders. The existence of these warrants and options could make it more difficult for Axonyx to obtain additional financing while such securities are outstanding. The holders may be expected to exercise their rights to acquire common stock and sell at a time when Axonyx would, in all likelihood, be able to obtain needed capital through a new offering of securities on terms more favorable than those provided by these warrants and options.

Risks Related to TorreyPines

In addition to the other information contained in this joint proxy statement/prospectus, you should carefully consider the material risks described below. As discussed above, Axonyx has entered into the merger agreement with merger sub and TorreyPines pursuant to which merger sub will merge with and into TorreyPines, with TorreyPines as the surviving corporation becoming a wholly owned subsidiary of Axonyx.

TorreyPines is at an early stage of development and has only three product candidates in clinical development. TorreyPines cannot be certain that any of its product candidates will be successfully developed, receive regulatory approval, or be commercialized.

TorreyPines is at an early stage of development and does not have any products that are commercially available. Only three of TorreyPines' product candidates, tezampanel, for migraine, NGX267, for AD, and NGX426, the oral prodrug of tezampanel, for migraine, are in clinical development. TorreyPines' other product candidates, including NGX292, a muscarinic agonist, and NGX555, a gamma-secretase modulator, are in preclinical development. TorreyPines will be required to conduct further clinical trials for all compounds in development as well as perform additional preclinical studies before it can seek the regulatory approvals necessary to begin commercial sales of its drugs.

Although five Phase IIa studies conducted by Eli Lilly on tezampanel have demonstrated proof of concept of its efficacy as an analgesic, TorreyPines will need to demonstrate additional efficacy and continue to confirm the safety of tezampanel in Phase II and large Phase III trials, conduct additional preclinical studies, and obtain necessary approvals from the FDA and similar foreign regulatory agencies before tezampanel can be marketed for the treatment of migraine. TorreyPines' product candidate for AD, NGX267 has been evaluated in two Phase I studies. However, NGX267 has been given to healthy volunteers only and TorreyPines has no data in subjects with AD to suggest that NGX267 will be an effective treatment for AD. TorreyPines will need to demonstrate the efficacy and to confirm the safety of NGX267 in additional Phase I, Phase II, and large Phase III trials, conducted in subjects with AD, perform additional preclinical studies, and obtain necessary approvals from the FDA and similar foreign regulatory agencies before NGX267 can be marketed for the for the treatment of AD. Before TorreyPines can market NGX426, NGX292, and NGX555, it will need to conduct preclinical studies and file an Investigational New Drug application, or IND, to permit commencement of human clinical studies on these product candidates, demonstrate that they are safe and effective in Phase I, Phase II and Phase III human clinical studies and, if those studies are successful, obtain necessary approvals from the FDA and similar foreign regulatory agencies.

TorreyPines does not anticipate that any of its current product candidates will be eligible to receive regulatory approval and begin commercialization for a number of years, if at all. Even if TorreyPines were to ultimately receive regulatory approval for its product candidates, TorreyPines may be unable to successfully commercialize them for a variety of reasons. These reasons include the availability of alternative treatments, cost effectiveness of the product, and the effect of competition with other marketed drugs. The success of TorreyPines' product candidates may also be limited by the prevalence and severity of any adverse side effects. Any delay in obtaining, or failure to obtain, required approvals could materially adversely affect TorreyPines' ability to generate revenues from the particular product candidate. Furthermore, any regulatory approval to market a product may be subject to limitations on the indicated uses for which TorreyPines may market the product. These limitations may reduce the size of the market for the product. If TorreyPines fails to commercialize one or more of its current product candidates, TorreyPines' business, results of operations, financial condition, and prospects for future growth will be materially and adversely affected.

If clinical trials of TorreyPines' product candidates do not produce successful results, TorreyPines will be unable to commercialize resulting products and its business will be materially adversely affected.

To receive regulatory approval for the commercialization of any of TorreyPines' product candidates, TorreyPines must conduct clinical trials to demonstrate safety and efficacy in humans. TorreyPines cannot predict whether it will encounter problems with any of its planned clinical trials that will cause TorreyPines or regulatory authorities to delay or suspend clinical trials, or delay the analysis of data from its ongoing clinical trials. Any of the following factors could delay the clinical development of TorreyPines' product candidates:

- ongoing discussions with the FDA or comparable foreign authorities regarding the scope or design of one or more clinical trials;
- delays in receiving, or the inability to obtain, required approvals from institutional review boards or other; reviewing entities at clinical trial sites selected for participation in a clinical trials;
- delays or slower than anticipated enrollment of participants into clinical trials;
- lower than anticipated retention rate of participants in clinical trials;
- need to repeat clinical trials as a result of inconclusive or negative results or unforeseen complications in testing;
- inadequate supply or deficient quality of product candidate materials or other materials necessary to conduct its clinical trials;
- unfavorable FDA inspection and review of a clinical trial site or records of any clinical or preclinical investigation;
- serious, unexpected or undesirable side effects experienced by participants in the clinical trials that delay or preclude regulatory approval or limit the commercial use or market acceptance if approved;
- findings that the trial participants are being exposed to unacceptable health risks;
- placement by the FDA of a clinical hold on a trial;
- restrictions on or post-approval commitments with regard to any regulatory approval TorreyPines ultimately obtains that renders a product candidate not commercially viable; and
- unanticipated cost overruns in preclinical and clinical trials.

Human clinical testing is expensive, can take many years, and has an uncertain outcome. Failure can occur at any stage of human clinical testing. TorreyPines may experience numerous unforeseen events during, or as a result of, the clinical trial process that could delay or prevent commercialization of its current or future product candidates.

Success in preclinical testing and early clinical trials does not mean that later clinical trials will be successful. Companies frequently suffer significant setbacks in advanced clinical trials, even after earlier clinical trials have shown promising results. To date, a combined total of 205 subjects have been given tezampanel in two Phase I studies in healthy adult males and in five Phase IIa trials in subjects with migraine, low back pain, dental pain, and muscle spasticity. Tezampanel was well tolerated and, in the Phase IIa trials, tezampanel was shown to be more effective than placebo. In future clinical trials with larger or somewhat different populations, these results may not be reproduced and analysis of new or additional data may not demonstrate sufficient safety and efficacy to support regulatory approval of this product candidate.

TorreyPines will need to reach agreement with the FDA on the targeted endpoints for its efficacy clinical trials. In some cases, the FDA may not have validated endpoints established and TorreyPines

may work with the FDA to potentially design and validate one or more endpoints. The FDA may not approve any or all of the endpoints and they may ultimately decide that the endpoints are inadequate to demonstrate the safety and efficacy levels required for regulatory approval. TorreyPines' failure to demonstrate the safety and efficacy of its product candidates adequately would jeopardize TorreyPines ability to achieve regulatory approval for, and ultimately to commercialize the product candidates.

Delays in the commencement or completion of clinical testing of TorreyPines' product candidates could result in increased costs to TorreyPines and delay its ability to generate significant revenues.

Delays in the commencement or completion of clinical testing could significantly impact TorreyPines' product development costs. TorreyPines does not know whether planned clinical trials will begin on time or be completed on schedule, if at all. The commencement of clinical trials can be delayed for a variety of reasons, including delays in:

- obtaining regulatory approval to commence a clinical trial;
- reaching agreement on acceptable terms with prospective contract research organizations and clinical trial sites;
- obtaining sufficient quantities of clinical trial materials for any or all product candidates;
- obtaining institutional review board approval to conduct a clinical trial at a prospective site; and
- recruiting participants for a clinical trial.

In addition, once a clinical trial has begun, it may be suspended or terminated by TorreyPines or the FDA or other regulatory authorities due to a number of factors, including:

- failure to conduct the clinical trial in accordance with regulatory requirements;
- inspection of the clinical trial operations or clinical trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold; or
- lack of adequate funding to continue the clinical trial.

Clinical trials require sufficient participant enrollment, which is a function of many factors, including the size of the target population, the nature of the trial protocol, the proximity of participants to clinical trial sites, the availability of effective treatments for the relevant disease, the eligibility criteria for TorreyPines' clinical trials and competing trials. Delays in enrollment can result in increased costs and longer development times. TorreyPines' failure to enroll participants in its clinical trials could delay the completion of the clinical trials beyond current expectations. In addition, the FDA could require TorreyPines to conduct clinical trials with a larger number of participants than it may project for any of its product candidates. As a result of these factors, TorreyPines may not be able to enroll a sufficient number of participants in a timely or cost-effective manner.

Furthermore, enrolled participants may drop out of clinical trials, which could impair the validity or statistical significance of the clinical trials. A number of factors can influence the discontinuation rate, including, but not limited to: the inclusion of a placebo arm in a trial; possible lack of effect of the product candidate being tested at one or more of the dose levels being tested; adverse side effects experienced, whether or not related to the product candidate; and the availability of numerous alternative treatment options that may induce participants to discontinue from the trial.

TorreyPines, the FDA or other applicable regulatory authorities may suspend clinical trials of a product candidate at any time if TorreyPines or they believe the participants in such clinical trials, or in independent third-party clinical trials for drugs based on similar technologies, are being exposed to unacceptable health risks or for other reasons.

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TorreyPines cannot predict whether any of its product candidates will encounter problems during clinical trials that will cause TorreyPines or regulatory authorities to delay or suspend these trials or delay the analysis of data from these trials. In addition, it is impossible to predict whether legislative changes will be enacted, or whether FDA regulations, guidance or interpretations will be changed, or what the impact of such changes, if any, may be. If TorreyPines experiences any such problems, it may not have the financial resources to continue development of the product candidate that is affected or the development of any of its other product candidates. If TorreyPines experiences significant delays in the commencement or completion of clinical testing, financial results and the commercial prospects for the product candidates will be harmed, costs will increase and TorreyPines' ability to generate revenues will be delayed.

TorreyPines relies on third parties to assist it in conducting clinical trials. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, TorreyPines may not be able to obtain regulatory approval for or commercialize its product candidates.

TorreyPines relies, and intends to continue to rely on third parties, such as CROs, medical institutions, clinical investigators and contract laboratories, to conduct clinical trials of its product candidates. TorreyPines' reliance on these third parties for development activities reduces its control over these activities. If these third parties do not successfully carry out their contractual duties or obligations or meet expected deadlines, or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to TorreyPines' clinical protocols or for other reasons, TorreyPines clinical trials may be extended, delayed or terminated. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, TorreyPines may be required to replace them. Although TorreyPines believes there are a number of third-party contractors it could engage to continue these activities, replacing a third-party contractor may result in a delay of the affected trial. Accordingly, TorreyPines may not be able to obtain regulatory approval for or successfully commercialize its product candidates.

TorreyPines has licensed rights to product candidates tezampanel and NGX426 from Eli Lilly. Eli Lilly has rights to negotiate, which could delay or limit TorreyPines' ability to develop and commercialize these product candidates, and rights of termination under the license agreement, which if exercised would adversely affect TorreyPines' business.

In April 2003, TorreyPines entered into an agreement with Eli Lilly to obtain an exclusive license from Eli Lilly to their AMPA/kainate, or AK, antagonist assets including TorreyPines' lead product candidate, tezampanel, as well as NGX426. Under the agreement, if TorreyPines decides to sublicense rights to commercialize either of the product candidates licensed to them under the agreement in the U.S. or all of its rights under the agreement worldwide, TorreyPines is obligated first to provide Eli Lilly the opportunity to negotiate with TorreyPines to obtain those rights. These rights held by Eli Lilly may delay or limit TorreyPines ability to enter into a sublicense with a third party.

TorreyPines has obligations to make payments to Eli Lilly under the agreement and to use commercially reasonable efforts to develop and commercialize the product candidates subject to the agreement, including achievement of specified development events within specified timeframes. Eli Lilly may terminate the agreement for uncured material breach of the agreement by TorreyPines, including any breach of TorreyPines' diligence obligations, if TorreyPines goes into bankruptcy or makes a general assignment of its assets to its creditors, or if TorreyPines undergoes a change of control, unless the party acquiring TorreyPines in the change of control undertakes all of the obligations under the agreement. If Eli Lilly were to terminate the agreement, TorreyPines would lose rights to the AK antagonist product candidates, and TorreyPines' business would be adversely affected.

TorreyPines has licensed rights to product candidates NGX267 and NGX292 from Life Science Research Israel, or LSRI, and LSRI has rights of termination under the license agreement, which if exercised would adversely affect TorreyPines' business.

In May 2004, TorreyPines entered into an agreement with LSRI to obtain an exclusive license from LSRI to their muscarinic agonist assets NGX267 and NGX292. TorreyPines has obligations to make payments to LSRI under the agreement and to use commercially reasonable efforts to develop and commercialize the product candidates subject to the agreement, including achievement of specified development events within specified timeframes. LSRI may terminate the agreement for uncured material breach of the agreement by TorreyPines, including any breach of TorreyPines diligence obligations, or if TorreyPines goes into bankruptcy, makes a general assignment of its assets to its creditors, or dissolves or winds up its business. If LSRI were to terminate the agreement, TorreyPines would lose rights to the muscarinic agonist product candidates, and TorreyPines' business would be adversely affected.

TorreyPines depends on Eisai for funding for its gamma-secretase modulator program and AD genetics research program. Eisai has the first right to obtain rights to gene targets and compounds resulting from these programs, which could delay or limit TorreyPines' ability to develop and commercialize these gene targets and compounds.

In February 2005, TorreyPines entered into an agreement with Eisai to discover small molecule gamma-secretase modulator compounds useful in the field of treatment for AD in humans. The agreement has a two-year term and may be extended by Eisai for up to an additional 12 months. In October 2005, TorreyPines entered into an agreement with Eisai to discover gene targets useful in the field of treatment or prevention of AD in humans. The agreement has a two-year term and may be extended by Eisai for up to an additional 12 months. TorreyPines depends upon Eisai to provide funding for the research TorreyPines conducts under these agreements. If Eisai were to cease funding these programs for any reason, TorreyPines would need to provide its own funding for the programs, seek a strategic partner for further work on the programs, raise additional funding, or curtail or abandon the programs.

During the term of the respective agreements, Eisai has exclusive first rights of negotiation and refusal with regard to a license, collaboration or other arrangement regarding gene targets discovered and validated in the course of the AD genetics research program or compounds discovered and validated in the course of the gamma-secretase modulator program, as applicable. These rights held by Eisai may delay or limit TorreyPines' ability to enter into a license, collaboration or other arrangement for any gene targets resulting from the AD genetic research program or compounds resulting from the gamma-secretase modulator program with a third party.

TorreyPines has an agreement providing Johnson & Johnson Development Corporation the first right to obtain rights to TorreyPines' M1 agonist program, which could delay or limit TorreyPines' ability to develop and commercialize these product candidates.

TorreyPines has an agreement with Johnson & Johnson Development Corporation, or JJDC, regarding TorreyPines' research and development work into the effects of using M1 agonists in the treatment of CNS diseases and disorders. Upon completion of a specified level of development of TorreyPines' lead M1 agonist, TorreyPines is obligated to provide results for the compound to JJDC.

For a specified period following receipt of the results, or at an earlier time as agreed to by JJDC and TorreyPines, JJDC has the exclusive right to negotiate with TorreyPines regarding any sale, transfer, license or other distribution of any TorreyPines' intellectual property rights or products related to TorreyPines' M1 agonist program, referred to as an M1 agonist transaction. If, during the specified period after the end of the period of negotiation with JJDC, TorreyPines proposes to enter in an

agreement with a third party regarding an M1 agonist transaction on terms that are equivalent to or less favorable to TorreyPines than the terms last proposed by JJDC, TorreyPines must first offer JJDC the right to enter into an agreement with TorreyPines on the terms proposed by the third party. If JJDC notifies TorreyPines that it wishes to complete an M1 agonist transaction on the terms offered by the third party within a specified notice period, then the parties will negotiate an agreement on those terms during a specified negotiation period. These rights held by JJDC may delay or limit TorreyPines' ability to enter into an M1 agonist transaction.

If TorreyPines fails to enter into and maintain collaborations for its product candidates, TorreyPines may have to reduce or delay product development or increase expenditures.

TorreyPines' strategy for developing, manufacturing, and commercializing potential products includes establishing and maintaining collaborations with pharmaceutical and biotechnology companies to advance some of its programs and reduce expenditures on those programs. TorreyPines may not be able to negotiate collaborations on acceptable terms, if at all. If TorreyPines is not able to establish and maintain collaborative arrangements, TorreyPines may have to reduce or delay further development of some programs or undertake the development activities at its own expense. If TorreyPines elects to increase capital expenditures to fund development programs on its own, TorreyPines will need to obtain additional capital, which may not be available on acceptable terms or at all. Even if TorreyPines does succeed in securing such collaborations, it may not be able to maintain them if, for example, development or approval of a product candidate is delayed or sales of an approved drug are disappointing. Furthermore, any delay in entering into collaborations could delay the development and commercialization of TorreyPines' product candidates and reduce their competitiveness, even if they reach the market. Any such delay related to TorreyPines' collaborations could adversely affect its business.

If strategic partners do not devote adequate resources to the development and commercialization of TorreyPines' licensed product candidates, TorreyPines may not be able to commercialize its products and achieve revenues.

TorreyPines may enter into collaborations with other strategic partners with respect to TorreyPines' product candidates. If TorreyPines enters into any such collaborations, TorreyPines may have limited or no control over the amount and timing of resources that its partners dedicate to the development of TorreyPines product candidates. TorreyPines' ability to commercialize products which TorreyPines develops with its partners and generate royalties from product sales will depend on the partner's ability to assist TorreyPines in establishing the safety and efficacy of its product candidates, obtaining regulatory approvals and achieving market acceptance of products. TorreyPines' partners may elect to delay or terminate development of a product candidate, independently develop products that could compete with those of TorreyPines, or not commit sufficient resources to the marketing and distribution of products under the collaboration. If TorreyPines' partners fail to perform as expected under the collaborative agreements, TorreyPines' potential for revenue from the related product candidates will be dramatically reduced. In addition, revenue from TorreyPines' future collaborations may consist of contingent payments, such as payments for achieving development and commercialization milestones and royalties payable on sales of any successfully developed drugs. The milestone, royalty or other revenue that TorreyPines may receive under these collaborations will depend upon TorreyPines and its partner's ability to successfully develop, introduce, market and sell new products. In some cases, TorreyPines will not be involved in these processes and, accordingly, will depend entirely on its partners.

TorreyPines currently has no marketing or sales staff. If TorreyPines is unable to enter into or maintain collaborations with marketing partners or if TorreyPines is unable to develop its own sales and marketing capabilities, TorreyPines may not be successful in commercializing its potential drugs and TorreyPines may be unable to generate significant revenues.

TorreyPines may elect to commercialize some of the products it is developing on its own, with or without a partner, where those products can be effectively marketed and sold in concentrated markets that do not require a large sales force to be competitive. TorreyPines currently has no sales, marketing or distribution capabilities. To be able to commercialize its own products, TorreyPines will need to establish its own specialized sales force and marketing organization with technical expertise and with supporting distribution capabilities. Developing such an organization is expensive and time consuming and could delay or limit TorreyPines' ability to commercialize products.

To commercialize any product candidate that TorreyPines decides not to market on its own, TorreyPines will depend on collaborations with third parties which have established distribution systems and direct sales forces. If TorreyPines is unable to enter into such collaborations on acceptable terms, TorreyPines may not be able to successfully commercialize those products.

To the extent that TorreyPines enters into arrangements with collaborators or other third parties to perform sales and marketing services, TorreyPines product revenues are likely to be lower than if TorreyPines directly marketed and sold its product candidates. If TorreyPines is unable to establish adequate sales and marketing capabilities, independently or with others, TorreyPines may not be able to generate significant revenues and may not become profitable and the price of its common stock may be negatively affected.

TorreyPines' product candidates are new therapies for pain and AD, and TorreyPines does not know whether these product candidates will yield commercially viable drugs. If TorreyPines' research and development efforts do not yield commercially viable drugs, TorreyPines' business will be adversely affected.

TorreyPines most advanced product candidate, tezampanel, and a follow-on product candidate, NGX426, are antagonists of the AK receptors. They are part of a new class of compounds that block the AK receptors and, in turn, stop the transmission of pain signals. These product candidates may represent a novel approach to the management of migraine and chronic pain, including neuropathic pain. There are no approved products that are AK antagonists. As a result, TorreyPines cannot be certain that its product candidates will result in commercially viable drugs that safely and effectively treat migraine and other chronic pain indications.

TorreyPines has two product candidates for AD, NGX267 and NGX292, which are muscarinic agonists and a gamma-secretase modulator product candidate for AD, NGX555. These product candidates belong to classes of compounds that have been or are being studied as a treatment for AD, but there are no approved muscarinic agonist products or gamma-secretase modulator products for AD. As a result, TorreyPines cannot be certain that its product candidates will safely and effectively improve the symptoms of AD or modify the progression of the disease or result in commercially viable drugs.

If TorreyPines' efforts to discover new product candidates do not succeed, and product candidates that TorreyPines recommends for clinical development do not actually begin clinical trials, TorreyPines' business will suffer.

TorreyPines intends to use its proprietary technologies and expertise in AD and related neurodegenerative diseases and disorders to discover, develop and commercialize new products for the treatment and prevention of these diseases and disorders. Once recommended for development, a candidate undergoes drug substance scale up, preclinical testing, including toxicology tests, and formulation development. If this work is successful, an IND would need to be prepared, filed, and approved by the FDA and the product candidate would then be ready for human clinical testing.

The process of researching, discovering, and conducting preclinical testing on product candidates is expensive, time-consuming and unpredictable. TorreyPines has one product candidate in preclinical development, NGX555, which was discovered by TorreyPines. Additional data obtained from TorreyPines' current preclinical program for NGX555 may not support advancing it into clinical development. In addition, TorreyPines may not identify any additional compounds suitable to be recommended preclinical or for clinical development. Moreover, any compounds TorreyPines recommends for clinical development, including NGX555, may not be effective or safe for their designated use, which would prevent their advancement into clinical trials and impede TorreyPines' ability to maintain or expand their clinical development pipeline. TorreyPines' ability to identify new compounds and advance them into development also depends upon its ability to fund research and development operations, and TorreyPines cannot be certain that additional funding will be available on acceptable terms, or at all.

If TorreyPines is not successful in acquiring or licensing additional CNS product candidates on acceptable terms, if at all, TorreyPines' business may be adversely affected.

As part of its strategy, TorreyPines intends to acquire or in-license additional product candidates for treatment of diseases and disorders of the CNS. TorreyPines may not be able to identify promising CNS product candidates and may have to compete with other pharmaceutical and biotechnology companies seeking to identify CNS product candidates. Even if TorreyPines is successful in identifying promising CNS product candidates, TorreyPines may not be able to reach an agreement for the acquisition or license of the product candidates with their owners on acceptable terms, if at all.

TorreyPines does not have internal manufacturing capabilities. If TorreyPines fails to develop and maintain supply relationships with collaborators or other third-party manufacturers, TorreyPines may be unable to develop or commercialize its products.

TorreyPines' ability to develop and commercialize its products depends in part on TorreyPines' ability to manufacture, or arrange for future collaborators or other third parties to manufacture, its products at a competitive cost, in accordance with regulatory requirements and in sufficient quantities for clinical testing and eventual commercialization. None of TorreyPines' current product candidates has been manufactured on a commercial scale. TorreyPines and these third-party manufacturers may encounter difficulties with the small- and large-scale formulation and manufacturing processes required to manufacture its product candidates, resulting in delays in clinical trials and regulatory submissions, in the commercialization of product candidates or, if any product candidate is approved, in the recall or withdrawal of the product from the market. TorreyPines' inability to enter into or maintain agreements with capable third-party manufacturers on acceptable terms could delay or prevent the commercialization of its products, which would adversely affect TorreyPines' ability to generate revenues and could prevent TorreyPines from achieving profitability.

TorreyPines has supplies of tezampanel, NGX426 and NGX267 that it expects to need for current clinical trials. TorreyPines will need to identify and reach agreement with third parties for the supply of its product candidates for future clinical trials. TorreyPines does not have long-term supply agreements with third parties, and TorreyPines may not be able to enter into new supply agreements with them in a timely manner or on acceptable terms, if at all. These third parties may also be subject to capacity constraints that would cause them to limit the amount of TorreyPines' product candidates they can produce or the chemicals that TorreyPines can purchase. Any interruption or delay TorreyPines experiences in the supply of its product candidates or the chemicals may impede or delay such product candidates' clinical development and cause TorreyPines to incur increased expenses associated with identifying and qualifying one or more alternate suppliers.

In addition, TorreyPines, its future collaborators or other third-party manufacturers of its products must comply with current good manufacturing practice, or cGMP, requirements enforced by the FDA

through its facilities inspection program. These requirements include quality control, quality assurance and the maintenance of records and documentation. In addition, product manufacturing facilities in California are subject to licensing requirements of the California Department of Health Services and may be inspected by the California Department of Health Services at any time. TorreyPines, its collaborators or other third-party manufacturers of its products may be unable to comply with these cGMP requirements and with other FDA, state and foreign regulatory requirements. A failure to comply with these requirements may result in fines and civil penalties, suspension or delay in product approval, product seizure or recall, or withdrawal of product approval.

If TorreyPines fail to attract and keep key management and scientific personnel, TorreyPines may be unable to develop or commercialize its product candidates successfully.

TorreyPines' success depends on its continued ability to attract, retain and motivate highly qualified management and scientific personnel. The loss of the services of any principal member of TorreyPines' senior management could delay or prevent the commercialization of its product candidates. TorreyPines employs these individuals on an at-will basis and their employment can be terminated by TorreyPines or them at any time, for any reason and with or without notice, subject to the terms contained in their employment offer letters.

Competition for qualified personnel in the biotechnology field is intense. TorreyPines may not be able to attract and retain quality personnel on acceptable terms given the competition for such personnel among biotechnology, pharmaceutical and other companies.

TorreyPines has established a scientific advisory board, the members of which assist TorreyPines in formulating research and development strategies. These scientific advisors are not TorreyPines' employees and may have commitments to, or consulting or advisory contracts with, other entities that may limit their availability to TorreyPines. The failure of TorreyPines' scientific advisors to devote sufficient time and resources to TorreyPines' programs could harm its business. In addition, TorreyPines' scientific advisors may have arrangements with other companies to assist those companies in developing products or technologies that may compete with TorreyPines.

TorreyPines has a history of net losses, which TorreyPines expects to continue for the foreseeable future, and TorreyPines is unable to predict the extent of future losses or when TorreyPines will become profitable, if at all.

Since its inception in 2000, TorreyPines has engaged only in research and development efforts. TorreyPines has incurred operating losses in each year since its inception, and TorreyPines may never achieve profitability. The net loss for each of the fiscal years ended December 31, 2005, December 31, 2004, December 31, 2003, December 31, 2002 and December 31, 2001 was $11.5 million, $10.4 million, $13.1 million, $6.8 million and $3.4 million, respectively. The net loss for the six months ended June 30, 2006 was $9.5 million. As of June 30, 2006, TorreyPines had an accumulated deficit of approximately $70.7 million. TorreyPines' losses have resulted principally from costs incurred in connection with its research activities and from general and administrative costs associated with its operations.

TorreyPines expects to increase its operating expenses over the next several years as TorreyPines continues and expands its research and development activities, including clinical trials for its product candidates and further development of its product pipeline, acquire or in-license products, technologies or businesses, and fund other working capital and general corporate purposes. As a result, TorreyPines expects to continue to incur significant and increasing operating losses for the foreseeable future. Because of the numerous risks and uncertainties associated with its product development efforts, TorreyPines is unable to predict the extent of any future losses or when TorreyPines will become profitable, if at all.

TorreyPines currently lacks a significant continuing revenue source and may not become profitable.

TorreyPines' ability to become profitable depends upon its ability to generate continuing revenues. To date, TorreyPines' product candidates and strategic collaborations have not generated any significant revenues, other than one-time or time-limited payments associated with current collaborations. TorreyPines' ability to generate significant continuing revenues depends on a number of factors, including:

- successful completion of ongoing and future clinical trials for its product candidates;
- achievement of regulatory approval for its product candidates;
- successful completion of current and future strategic collaborations; and
- successful sales, manufacturing, distribution and marketing of its products.

TorreyPines does not anticipate that it will generate significant continuing revenues for several years. If TorreyPines is unable to generate significant continuing revenues, TorreyPines will not become profitable, and TorreyPines may be unable to continue its operations and, in such event, investors could lose their entire investment.

TorreyPines will need substantial additional funding and may be unable to raise capital when needed, which would force TorreyPines to delay, reduce or eliminate its research and development programs or commercialization efforts.

TorreyPines will need to raise substantial additional capital in the future and additional funding requirements will depend on, and could increase significantly as a result of, many factors, including:

- the rate of progress and cost of clinical trials;
- the scope of TorreyPines' clinical trials and other research and development activities;
- the prioritization and number of clinical development and research programs TorreyPines pursues;
- the terms and timing of any collaborative, licensing and other arrangements that TorreyPines may establish;
- the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;
- the costs and timing of regulatory approvals; and
- the costs of establishing or contracting for sales and marketing capabilities.

TorreyPines does not anticipate that it will generate significant continuing revenues for several years, if at all. Until TorreyPines can generate significant continuing revenues, if ever, TorreyPines expects to satisfy its future cash needs through public or private equity offerings, debt financings or corporate collaboration and licensing arrangements, as well as through interest income earned on cash balances. TorreyPines cannot be certain that additional funding will be available on acceptable terms, or at all. If adequate funds are not available, TorreyPines may be required to delay, reduce the scope of, or eliminate one or more of its research and development programs or commercialization efforts.

Raising additional funds by issuing securities or through collaboration and licensing arrangements may cause dilution to existing stockholders, restrict operations or require TorreyPines to relinquish proprietary rights.

TorreyPines may raise additional funds through public or private equity offerings, debt financings or corporate collaboration and licensing arrangements. To the extent that TorreyPines raises additional capital by issuing equity securities, its existing stockholders' ownership will be diluted. Any debt

financing TorreyPines enter into may involve covenants that restrict its operations. These restrictive covenants may include limitations on additional borrowing, specific restrictions on the use of TorreyPines assets as well as prohibitions on TorreyPines' ability to create liens, pay dividends, redeem stock or make investments. In addition, if TorreyPines raises additional funds through collaboration and licensing arrangements, it may be necessary to relinquish potentially valuable rights to its potential products or proprietary technologies, or grant licenses on terms that are not favorable to TorreyPines.

Changes in, or interpretations of, accounting rules and regulations could result in unfavorable accounting charges or require TorreyPines to change its compensation policies.

Accounting methods and policies for biopharmaceutical companies, including policies governing revenue recognition, expenses, accounting for stock options and in-process research and development costs are subject to further review, interpretation and guidance from relevant accounting authorities, including the Securities and Exchange Commission. Changes to, or interpretations of, accounting methods or policies in the future may require TorreyPines to reclassify, restate or otherwise change or revise its financial statements, including those contained in this joint proxy statement/prospectus.

Risks Related to TorreyPines' Intellectual Property

TorreyPines' success depends upon its ability to protect its intellectual property and proprietary technologies.

TorreyPines' commercial success depends on obtaining and maintaining patent protection and trade secret protection of its product candidates, proprietary technologies and their uses, as well as successfully defending these patents against third-party challenges. TorreyPines will only be able to protect its product candidates, proprietary technologies and their uses from unauthorized use by third parties to the extent that valid and enforceable patents or trade secrets cover them.

The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in biotechnology patents has emerged to date in the U.S. The biotechnology patent situation outside the U.S. is even more uncertain. Changes in either the patent laws or in interpretations of patent laws in the U.S. and other countries may diminish the value of TorreyPines' intellectual property. Accordingly, TorreyPines cannot predict the breadth of claims that may be allowed or enforced in its patents or in third-party patents.

The degree of future protection for TorreyPines' proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect its rights or permit it to gain or keep its competitive advantage. For example:

- TorreyPines or its licensors might not have been the first to make the inventions covered by each of its pending patent applications and issued patents;
- TorreyPines or its licensors might not have been the first to file patent applications for these inventions;
- others may independently develop similar or alternative technologies or duplicate any of TorreyPines' technologies;
- it is possible that none of TorreyPines' pending patent applications will result in issued patents;
- TorreyPines' issued patents may not provide a basis for commercially viable products, may not provide it with any competitive advantages, or may be challenged by third parties;
- TorreyPines' issued patents may not be valid or enforceable;
- TorreyPines may not develop additional proprietary technologies that are patentable; and

the patents of others may have an adverse effect on TorreyPines' business.

Proprietary trade secrets and unpatented know-how are also very important to TorreyPines' business. Although TorreyPines has taken steps to protect its trade secrets and unpatented know-how, including entering into confidentiality agreements with third parties and proprietary information and inventions agreements with employees, consultants and advisors, third parties may still obtain this information. Enforcing a claim that a third party illegally obtained and is using TorreyPines' trade secrets or unpatented know-how is expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the U.S. may be less willing to protect this information. Moreover, TorreyPines' competitors may independently develop equivalent knowledge, methods and know-how.

If TorreyPines is sued for infringing intellectual property rights of third parties, it will be costly and time consuming, and an unfavorable outcome in that litigation would have a material adverse effect on its business.

TorreyPines' commercial success depends upon its ability and the ability of any of its collaborators to develop, manufacture, market, and sell its 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 TorreyPines is developing products. Because patent applications can take many years to issue, there may be currently pending applications, unknown to TorreyPines, which may later result in issued patents that its product candidates or proprietary technologies may infringe. TorreyPines has not conducted a complete search of existing patents to identify existing patents that its product candidates or proprietary technologies may inadvertently infringe.

TorreyPines may be exposed to future litigation by the companies holding these patents or other third parties based on claims that its product candidates and/or proprietary technologies infringe their intellectual property rights. If one of these patents was found to cover TorreyPines' product candidates, proprietary technologies or their uses, TorreyPines or its collaborators could be required to pay damages and could be unable to commercialize its product candidates or use its proprietary technologies unless it obtained a license to the patent. A license to these patents may not be available to TorreyPines or its collaborators on acceptable terms, if at all.

There is a substantial amount of litigation involving patent and other intellectual property rights in the biotechnology and biopharmaceutical industries generally. If a third party claims that TorreyPines or its collaborators infringe on its technology, it may face a number of issues, including:

infringement and other intellectual property claims which, with or without merit, may be expensive and time-consuming to litigate and may divert management's attention from its core business;

substantial damages for infringement, including treble damages and attorneys' fees, as well as damages for products development using allegedly infringing drug discovery tools or methods which TorreyPines may have to pay if a court decides that the product or proprietary technology at issue infringes on or violates the third party's rights;

a court prohibiting TorreyPines from selling or licensing the product or using the proprietary technology unless the third party licenses its technology to TorreyPines, which it is not required to do;

if a license is available from the third party, TorreyPines may have to pay substantial royalties, fees and/or grant cross licenses to its technology; and

redesigning TorreyPines' products or processes so they do not infringe, which may not be possible or may require substantial funds and time,

TorreyPines may also be subject to claims that it or its employees, who were previously employed at universities or other biotechnology or pharmaceutical companies, have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. If TorreyPines fails in defending such claims, in addition to paying monetary damages, it may lose valuable intellectual property rights or personnel. A loss of key research personnel or their work product could hamper or prevent TorreyPines' ability to commercialize certain potential drugs, which could severely harm its business. Even if TorreyPines is successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

Risks Related to TorreyPines' Industry

TorreyPines' product candidates are subject to extensive regulation, which can be costly and time consuming, cause unanticipated delays or prevent the receipt of the required approvals to commercialize TorreyPines' product candidates.

The clinical development, manufacturing, labeling, storage, record-keeping, advertising, promotion, export, marketing and distribution of TorreyPines' product candidates are subject to extensive regulation by the FDA and other regulatory agencies in the U.S. and by comparable foreign governmental authorities. The process of obtaining these approvals is expensive, often takes many years, and can vary substantially based upon the type, complexity and novelty of the products involved. Approval policies or regulations may change. In addition, although members of TorreyPines' management have drug development and regulatory experience, as a company TorreyPines has not previously filed the marketing applications necessary to gain regulatory approvals for any product. This lack of experience may impede TorreyPines' ability to obtain FDA marketing approval in a timely manner, if at all, for its product candidates for which development and commercialization is TorreyPines' responsibility. TorreyPines will not be able to commercialize its product candidates in the U.S. until TorreyPines obtains FDA approval and in other countries until TorreyPines obtains approval by comparable governmental authorities. Any delay in obtaining, or inability to obtain, these approvals would prevent TorreyPines from commercializing its product candidates.

Even if any of TorreyPines' product candidates receives regulatory approval, they may still face future development and regulatory difficulties.

If any of TorreyPines' product candidates receive regulatory approval, the FDA and foreign regulatory authorities may still impose significant restrictions on the uses or marketing of the product candidates or impose ongoing requirements for post-approval studies. In addition, regulatory agencies subject a product, its manufacturer and the manufacturer's facilities to continuing review and periodic inspections. If previously unknown problems with a product or its manufacturing facility are discovered, a regulatory agency may impose restrictions on that product, TorreyPines, or its partners, including requiring withdrawal of the product from the market. TorreyPines' candidates will also be subject to ongoing FDA requirements for submission of safety and other post-market information. If TorreyPines' product candidates fail to comply with applicable regulatory requirements, a regulatory agency may:

issue warning letters;

impose civil or criminal penalties;

suspend regulatory approval;

suspend any ongoing clinical trials;

refuse to approve pending applications or supplements to approved applications filed by TorreyPines or its collaborators;

impose restrictions on operations, including costly new manufacturing requirements; or

seize or detain products or require a product recall.

In order to market any products outside of the U.S., TorreyPines and its partners 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 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. 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 negatively impact 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 described above regarding FDA approval in the U.S., including the risk that TorreyPines' product candidates may not be approved for all indications requested, which could limit the uses of its product candidates and adversely impact potential royalties and 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.

If TorreyPines and its partners fail to comply with applicable foreign regulatory requirements, TorreyPines and its partners may be subject to fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

If TorreyPines' competitors have products that are approved faster, marketed more effectively or demonstrated to be more effective than TorreyPines' products, then TorreyPines' commercial opportunity will be reduced or eliminated.

The biotechnology and biopharmaceutical industries are characterized by rapidly advancing technologies, intense competition and a strong emphasis on proprietary products. TorreyPines faces competition from many different sources, including commercial pharmaceutical and biotechnology enterprises, academic institutions, government agencies and private and public research institutions. Due to the high demand for treatments for CNS diseases and disorders, research is intense and new treatments are being sought out and developed by TorreyPines' competitors.

In addition, many other competitors are developing products for the treatment of the diseases TorreyPines is targeting and if successful, these products could compete with TorreyPines' products. If TorreyPines receives approval to market and sell any of its product candidates, TorreyPines may compete with these companies and their products as well as others in varying stages of development.

Many of TorreyPines' competitors have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, clinical trials, regulatory approvals and marketing approved products than TorreyPines does. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. TorreyPines' competitors may succeed in developing technologies and therapies that are more effective, better tolerated or less costly than any which TorreyPines is developing, or that would render TorreyPines' product candidates obsolete and noncompetitive. TorreyPines' competitors may succeed in obtaining approvals from the FDA and foreign regulatory authorities for their products sooner than TorreyPines does. TorreyPines will also face competition from these third parties in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, and in acquiring and in-licensing technologies and products complementary to TorreyPines' programs or advantageous to its business.

If TorreyPines' product candidates do not achieve market acceptance among physicians, patients, health care payors and the medical community, they will not be commercially successful and TorreyPines' business will be adversely affected.

The degree of market acceptance of any of TorreyPines' approved product candidates among physicians, patients, health care payors and the medical community will depend on a number of factors, including:

- acceptable evidence of safety and efficacy;
- relative convenience and ease of administration;
- the prevalence and severity of any adverse side effects;
- availability of alternative treatments;
- pricing and cost effectiveness;
- effectiveness of sales and marketing strategies; and
- ability to obtain sufficient third-party coverage or reimbursement.

TorreyPines is subject to uncertainty relating to health care reform measures and reimbursement policies which, if not favorable to its product candidates, could hinder or prevent the commercial success of its product candidates.

The continuing efforts of the government, insurance companies, managed care organizations and other payors of health care costs to contain or reduce costs of health care may adversely affect TorreyPines':

- ability to set a price TorreyPines believes is fair for its products;
- ability to generate revenues and achieve profitability;
- future revenues and profitability of potential customers, suppliers and collaborators; and
- the availability of capital.

In certain foreign markets, the pricing of prescription drugs is subject to government control. In the U.S., given recent federal and state government initiatives directed at lowering the total cost of health care, Congress and state legislatures will likely continue to focus on health care reform, the cost of prescription drugs and the reform of the Medicare and Medicaid systems. For example, a new Medicare prescription drug benefit program began in 2006. While TorreyPines cannot predict the full outcome of the implementation of this legislation or whether any future legislative or regulatory proposals affecting its business will be adopted, the announcement or adoption of these proposals could materially and adversely affect TorreyPines' business, financial condition, and results of operations.

TorreyPines' ability to commercialize its product candidates successfully will depend in part on the extent to which governmental authorities, private health insurers and other organizations establish appropriate reimbursement levels for the cost of its products and related treatments. Third-party payors are increasingly challenging the prices charged for medical products and services. Also, the trend toward managed health care in the U.S., which could significantly influence the purchase of health care services and products, as well as legislative proposals to reform health care or reduce government insurance programs, may result in lower prices for TorreyPines' product candidates or exclusion of its product candidates from reimbursement programs. The cost containment measures that health care payors and providers are

instituting and the effect of any health care reform could materially and adversely affect TorreyPines' results of operations.

Product liability claims may harm TorreyPines' business if its insurance coverage for those claims is inadequate.

TorreyPines faces an inherent risk of product liability exposure related to the testing of its product candidates in human clinical trials, and will face an even greater risk if TorreyPines sells its product candidates commercially. An individual may bring a liability claim against TorreyPines if one of its product candidates causes, or merely appears to have caused, an injury. If TorreyPines cannot successfully defend itself against the product liability claim, TorreyPines will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

decreased demand for TorreyPines' product candidates;

injury to TorreyPines' reputation;

withdrawal of clinical trial participants;

costs of related litigation;

substantial monetary awards to patients or other claimants;

loss of revenues; and

the inability to commercialize TorreyPines' product candidates.

TorreyPines has product liability insurance that covers its clinical trials, up to an annual aggregate limit of $5.0 million. TorreyPines intends to expand its insurance coverage to include the sale of commercial products if marketing approval is obtained for any of its product candidates. However, insurance coverage is increasingly expensive. TorreyPines may not be able to maintain insurance coverage at a reasonable cost and TorreyPines may not be able to obtain insurance coverage that will be adequate to satisfy any liability that may arise.

TorreyPines uses hazardous chemicals and radioactive and biological materials in its business. Any claims relating to improper handling, storage or disposal of these materials could be time-consuming and costly.

TorreyPines' research and development processes involve the controlled use of hazardous materials, including chemicals, radioactive and biological materials. TorreyPines' operations produce hazardous waste products. TorreyPines cannot eliminate the risk of accidental contamination or discharge and any resultant injury from those materials. Federal, state and local laws and regulations govern the use, manufacture, storage, handling and disposal of hazardous materials. TorreyPines may be sued for any injury or contamination that results from its use or the use by third parties of these materials. Compliance with environmental laws and regulations may be expensive, and current or future environmental regulations may impair TorreyPines' research, development and production efforts.

Risks Related to the Combined Company

In determining whether you should approve the merger, the issuance of shares of Axonyx common stock and the merger warrants 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 under "Risk Factors Risks Related to Axonyx" and "Risk Factors Risks Related to TorreyPines," which will also apply to the combined company.

The combined company's stock price 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 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 combined company's common stock to fluctuate include:

- the results of the combined company's current and any future clinical trials of its product candidates;
- the results of ongoing preclinical studies and planned clinical trials of the combined company's preclinical product candidates;
- the entry into, or termination of, key agreements, including key strategic alliance agreements;
- the results and timing of regulatory reviews relating to the approval of the combined company's product candidates;
- the initiation of, material developments in, or conclusion of litigation to enforce or defend any of the combined company's intellectual property rights;
- failure of any of the combined company's product candidates, if approved, to achieve commercial success;
- general and industry-specific economic conditions that may affect the combined company's research and development expenditures;
- the results of clinical trials conducted by others on drugs that would compete with the combined company's product candidates;
- issues in manufacturing the combined company's product candidates or any approved products;
- the loss of key employees;
- the introduction of technological innovations or new commercial products by competitors of the combined company;
- changes in estimates or recommendations by securities analysts, if any, who cover the combined company's common stock;
- future sales of the combined company's common stock;
- changes in the structure of health care payment systems; and
- period-to-period fluctuations in the combined company'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 company'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 company's profitability and reputation.

The combined company's management will be required to devote substantial time to comply with public company regulations.

As a public company, the combined company will incur significant legal, accounting and other expenses that TorreyPines does not incur as a private company. In addition, the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, as well as rules subsequently implemented by the SEC and the NASDAQ Global Market, impose various requirements on public companies, including with respect to corporate governance practices. The combined company's management and other personnel will need to devote a substantial amount of time to these requirements. Moreover, these rules and regulations will increase the combined company's legal and financial compliance costs relative to those of TorreyPines and will make some activities more time-consuming and costly.

In addition, the Sarbanes-Oxley Act requires, among other things, that the combined company maintain effective internal controls for financial reporting and disclosure controls and procedures. In particular, the combined company must perform system and process evaluation and testing of its internal controls over financial reporting to allow management to report on the effectiveness of its internal controls over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act. The combined company's compliance with Section 404 will require that it incur substantial accounting and related expense and expend significant management efforts. The combined company will need to hire additional accounting and financial staff to satisfy the ongoing requirements of Section 404. Moreover, if the combined company is not able to comply with the requirements of Section 404, or if the combined company or its independent registered public accounting firm identifies deficiencies in its internal controls over financial reporting that are deemed to be material weaknesses, the market price of the combined company's stock could decline and the combined company could be subject to sanctions or investigations by the NASDAQ Global Market, SEC or other regulatory authorities.

Anti-takeover provisions in the combined company's stockholder rights plan and in its certificate of incorporation and bylaws may prevent or frustrate attempts by stockholders to change the board of directors or current management and could make a third-party acquisition of the combined company difficult.

The combined company will be party to a stockholder rights plan, also referred to as a poison pill, which is intended to deter a hostile takeover of the combined company by making such proposed acquisition more expensive and less desirable to the potential acquirer. The stockholder rights plan and the combined company's certificate of incorporation and bylaws, as amended, will contain provisions that may discourage, delay or prevent a merger, acquisition or other change in control that stockholders may consider favorable, including transactions in which stockholders might otherwise receive a premium for their shares. These provisions could limit the price that investors might be willing to pay in the future for shares of the combined company's common stock.

The combined company may continue to incur losses for the foreseeable future, and might never achieve profitability.

Axonyx began operations in 1997 and has incurred a net operating loss every year since that time. As of June 30, 2006, Axonyx had an accumulated deficit of approximately $99.3 million. TorreyPines has incurred operating losses in each year since its inception, and TorreyPines may never achieve profitability. As of June 30, 2006, TorreyPines had an accumulated deficit of approximately $70.7 million. The combined company may never become profitable, even if the combined company is able to commercialize additional products. The combined company will need to conduct significant research, development, testing and regulatory compliance activities that, together with projected general and administrative expenses, is expected to result in substantial increased operating losses for at least

the next several years. Even if the combined company does achieve profitability, it may not be able to sustain or increase profitability on a quarterly or annual basis.

The combined company may be required to suspend, repeat or terminate its clinical trials if they do not meet regulatory requirements, the results are negative or inconclusive, or if the trials are not well designed.

Before regulatory approval for any potential product can be obtained, the combined company must undertake extensive clinical testing in humans to demonstrate the tolerability and efficacy of the product, both on its own terms, and as compared to the other principal drugs on the market that have the same therapeutic indication. Neither Axonyx nor TorreyPines can assure investors that it will obtain authorization to permit product candidates that are already in the preclinical development phase to enter the human clinical testing phase. In addition, neither Axonyx nor TorreyPines can assure investors that any authorized preclinical or clinical testing will be completed successfully within any specified time period by the combined company, or without significant additional resources or expertise to those originally expected to be necessary. Neither Axonyx nor TorreyPines can assure investors that such testing will show potential products to be safe and efficacious or that any such product will be approved for a specific indication. Further, the results from preclinical studies and early clinical trials may not be indicative of the results that will be obtained in later-stage clinical trials. In addition, the combined company or regulatory authorities may suspend clinical trials at any time on the basis that the participants are being exposed to unacceptable health risks.

Completion of clinical tests depends on, among other things, the number of patients available for testing, which is a function of many factors, including the number of patients with the relevant conditions, the nature of the clinical testing, the proximity of patients to clinical testing centers, the eligibility criteria for tests as well as competition with other clinical testing programs involving the same patient profile but different treatments. The combined company will rely on third parties, such as contract research organizations and/or co-operative groups, to assist it in overseeing and monitoring clinical trials as well as to process the clinical results and manage test requests, which may result in delays or failure to complete trials, if the third parties fail to perform or to meet the applicable standards. A failure by the combined company or such third parties to keep to the terms of a product program development for any particular product candidate or to complete the clinical trials for a product candidate in the envisaged time frame could have significant negative repercussions on the combined company's business and financial condition.

Even if the combined company's product candidates are successful in clinical trials, the combined company may not be able to successfully commercialize them.

Since Axonyx's inception in 1997 and since TorreyPines began operations as Neurogenetics, Inc. in 2000, both companies have dedicated substantially all of their resources to the research and development of their technologies and related compounds. All of Axonyx's and TorreyPines compounds currently are in research or development, and none have been submitted for marketing approval. The combined company's compounds may not enter human clinical trials on a timely basis, if at all, and the combined company may not develop any product candidates suitable for commercialization.

Prior to commercialization, each product candidate will require significant additional research, development and preclinical testing and extensive clinical investigation before submission of any regulatory application for marketing approval. Potential products that appear to be promising at early stages of development may not reach the market for a number of reasons, including that they may:

be found ineffective or cause harmful side effects during preclinical testing or clinical trials;

fail to receive necessary regulatory approvals;

be difficult to manufacture on a large scale;

be uneconomical to produce;

fail to achieve market acceptance; or

be precluded from commercialization by proprietary rights of third parties.

The combined company's product development efforts or the combined company's collaborative partners' efforts may not be successfully completed and the combined company may not obtain required regulatory approvals. Any products, if introduced, may not be successfully marketed nor achieve customer acceptance.

If the combined company fails to establish and maintain collaborations or if its partners do not perform, the combined company may be unable to develop and commercialize its product candidates.

Axonyx and TorreyPines have each entered into collaborative arrangements with third parties to develop and/or commercialize product candidates. Additional collaborations might be necessary in order for the combined company to fund its research and development activities and third-party manufacturing arrangements, seek and obtain regulatory approvals and successfully commercialize existing and future product candidates. If the combined company fails to maintain the existing collaborative arrangements held by Axonyx and TorreyPines or fails to enter into additional collaborative arrangements, the number of product candidates from which the combined company could receive future revenues would decline.

The combined company's dependence on collaborative arrangements with third parties will subject it to a number of risks that could harm the combined company's ability to develop and commercialize products:

collaborative arrangements might not be on terms favorable to the combined company;

disagreements with partners may result in delays in the development and marketing of products, termination of collaboration agreements or time consuming and expensive legal action;

the combined company cannot control the amount and timing of resources partners devote to product candidates or their prioritization of product candidates, and partners may not allocate sufficient funds or resources to the development, promotion or marketing of the combined company's products, or may not perform their obligations as expected;

partners may choose to develop, independently or with other companies, alternative products or treatments, including products or treatments which compete with the combined company's;

agreements with partners may expire or be terminated without renewal, or partners may breach collaboration agreements with the combined company;

business combinations or significant changes in a partner's business strategy might adversely affect that partner's willingness or ability to complete its obligations to the combined company; and

the terms and conditions of the relevant agreements may no longer be suitable.

Axonyx and TorreyPines cannot assure you that the combined company will be able to negotiate future collaboration agreements or that those currently in existence will make it possible for the combined company to fulfill its objectives.

The combined company may not complete its clinical trials in the time expected, which could delay or prevent the commercialization of its products.

Although for planning purposes Axonyx and TorreyPines forecast the commencement and completion of clinical trials, the actual timing of these events can vary dramatically due to factors such

as delays, scheduling conflicts with participating clinicians and clinical institutions and the rate of patient enrollment. Clinical trials involving the combined company's product candidates may not commence nor be completed as forecasted. In certain circumstances the combined company will rely on academic institutions or clinical research organizations to conduct, supervise or monitor some or all aspects of clinical trials involving the combined company's products. The combined company will have less control over the timing and other aspects of these clinical trials than if it conducted them entirely on its own. These trials may not commence or be completed as either Axonyx or TorreyPines expect. They may not be conducted successfully. Failure to commence or complete, or delays in, any of the combined company's planned clinical trials could delay or prevent the commercialization of the combined company's products and harm its business.

If the combined company fails to keep pace with rapid technological change in the biotechnology and pharmaceutical industries, its products could become obsolete.

Biotechnology and related pharmaceutical technology have undergone and are subject to rapid and significant change. Axonyx and TorreyPines expect that the technologies associated with biotechnology research and development will continue to develop rapidly. The combined company's future will depend in large part on its ability to maintain a competitive position with respect to these technologies. Any compounds, products or processes that the combined company develops may become obsolete before the combined company recovers any expenses incurred in connection with developing these products.

If the combined company loses key personnel or is unable to attract and retain additional personnel, the combined company may be unable to pursue collaborations or develop its own products.

The loss of any key members of the combined company's scientific or management staff, or failure to attract or retain other key scientific employees, could prevent the combined company from pursuing collaborations or developing its products and core technologies. Recruiting and retaining qualified scientific personnel to perform research and development work are critical to the combined company's success. There is intense competition for qualified scientists and managerial personnel from numerous pharmaceutical and biotechnology companies, as well as from academic and government organizations, research institutions and other entities. In addition, the combined company will rely on consultants and advisors, including scientific and clinical advisors, to assist it in formulating its research and development strategy. All of the combined company's consultants and advisors will be employed by other employers or be self-employed, and will have commitments to or consulting or advisory contracts with other entities that may limit their availability to the combined company.

FORWARD-LOOKING STATEMENTS

This joint proxy statement/prospectus contains "forward-looking statements" of Axonyx within the meaning of the Private Securities Litigation Reform Act of 1995, which is applicable to Axonyx because Axonyx is a public company subject to the reporting requirements of the Exchange Act but is not applicable to TorreyPines because TorreyPines is not a public company and is not currently subject to the reporting requirements of the Exchange Act. These forward-looking statements include:

- the potential value created by the proposed merger for Axonyx's and TorreyPines' securityholders;
- the efficacy, safety and intended utilization of TorreyPines' and Axonyx's product candidates;
- the conduct and results of TorreyPines' and Axonyx's research, discovery and preclinical efforts and clinical trials;
- TorreyPines' and Axonyx's plans regarding future research, discovery and preclinical efforts and clinical activities and collaborative, intellectual property and regulatory activities;
- the period in which TorreyPines expects cash will be available to fund its current operating plan, both before and after giving effect to the merger;
- the amount of shares Axonyx expects to issue in connection with the merger; and
- each of Axonyx's and TorreyPines' results of operations, financial condition and businesses, and products and product candidates under development and the expected impact of the proposed merger on the combined company's financial and operating performance.

Words such as "anticipates," "believes," "forecast," "potential," "contemplates," "expects," "intends," "plans," "believes," "seeks," "estimates," "could," "would," "will," "may," "can" and similar expressions identify forward-looking statements. These forward-looking statements are not guarantees of future performance and are subject to risks and uncertainties that could cause actual results to differ materially from the results contemplated by the forward-looking statements, including the following:

- Axonyx and TorreyPines may not be able to complete the proposed merger;
- TorreyPines' and Axonyx's product candidates that appear promising in early research and clinical trials may not demonstrate safety and efficacy in subsequent clinical trials;
- risks associated with reliance on collaborative partners for further clinical trials and other development activities; and
- risks involved with development and commercialization of product candidates.

Many of the important factors that will determine these results and values are beyond Axonyx's and TorreyPines' ability to control or predict. You are cautioned not to put undue reliance on any forward-looking statements. Except as otherwise required by law, Axonyx and TorreyPines do not assume any obligation to update any forward-looking statements. In evaluating the merger, you should carefully consider the discussion of risks and uncertainties in the section entitled "Risk Factors" in this joint proxy statement/prospectus.

THE ANNUAL MEETING OF AXONYX STOCKHOLDERS

Date, Time and Place

The annual meeting of Axonyx stockholders will be held on September 28, 2006, at the offices of Eisner LLP, 750 Third Avenue, 16th Floor, New York, NY 10017 commencing at 2:00 p.m. local time. Axonyx is sending this joint proxy statement/prospectus to its stockholders in connection with the solicitation of proxies by the Axonyx board of directors for use at the Axonyx annual meeting and any adjournments or postponements of the annual meeting. This joint proxy statement/prospectus is first being furnished to stockholders of Axonyx on or about [ ], 2006.

Purposes of the Axonyx Annual Meeting

The purposes of the Axonyx annual meeting are:

1. To consider and vote upon a proposal to approve the issuance of Axonyx common stock and warrants to purchase common stock, referred to herein as the merger warrants, and the resulting change in control pursuant to the Agreement and Plan of Merger and Reorganization, dated as of June 7, 2006, by and among Axonyx, Autobahn Acquisition, Inc., a wholly owned subsidiary of Axonyx, and TorreyPines Therapeutics, Inc., a Delaware corporation, as described in this joint proxy statement/prospectus.

2. To approve an amendment to Axonyx's articles of incorporation effecting the reverse stock split, as described in this joint proxy statement/prospectus.

3. To approve an amendment to Axonyx's articles of incorporation to change the name "Axonyx Inc." to "TorreyPines Therapeutics, Inc."

4. To approve a change of Axonyx's state of incorporation from Nevada to Delaware, as described in this joint proxy statement/prospectus.

5. To approve the adoption, contingent upon and effective as of immediately following the effective time of the merger, of the Axonyx 2006 Equity Incentive Plan, as described in this joint proxy statement/prospectus.

6. To elect the six directors nominated by the nominating/governance committee of Axonyx's board of directors and named herein; provided, however, that if the merger is completed, it is anticipated that the Axonyx board of directors will consist of the ten people identified in this joint proxy statement/prospectus, four of whom are listed nominees.

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

8. To transact such other business as may properly come before the Axonyx annual meeting or any adjournment or postponement thereof.

Recommendation of Axonyx's Board of Directors

The Axonyx board of directors has determined and believes that the issuance of shares of Axonyx common stock pursuant to the merger and the issuance of the merger warrants and the resulting change in control is advisable to, and in the best interests of, Axonyx and its stockholders and has approved such items. The Axonyx board of directors unanimously recommends that Axonyx stockholders vote "FOR" Axonyx Proposal No. 1 to approve the issuance of shares of Axonyx common stock and the merger warrants in the merger and the resulting change in control.

The Axonyx board of directors has determined and believes that it is advisable to, and in the best interests of, Axonyx and its stockholders to approve an amendment to Axonyx's articles of incorporation effecting the reverse stock split, as described in this joint proxy statement/prospectus. The Axonyx board of directors unanimously recommends that Axonyx stockholders vote "FOR" Axonyx Proposal No. 2 to approve the amendment to Axonyx's articles of incorporation effecting the reverse stock split, as described in this joint proxy statement/prospectus.

The Axonyx board of directors has determined and believes that the amendment of Axonyx's articles of incorporation to change the name of Axonyx to "TorreyPines Therapeutics, Inc." is advisable to, and in the best interests of, Axonyx and its stockholders and has approved such name change. The Axonyx board of directors unanimously recommends that Axonyx stockholders vote "FOR" Axonyx Proposal No. 3 to approve the name change.

The Axonyx board of directors has determined and believes that it is advisable to, and in the best interests of, Axonyx and its stockholders to approve a change of Axonyx's state of incorporation from Nevada to Delaware, as described in this joint proxy statement/prospectus. The Axonyx board of directors unanimously recommends that Axonyx stockholders vote "FOR" Proposal No. 4 to approve a change of Axonyx's state of incorporation from Nevada to Delaware, as described in this joint proxy statement/prospectus.

The Axonyx board of directors has determined and believes that the adoption, contingent upon and effective as of immediately following the effective time of the merger, of the Axonyx 2006 equity incentive plan, as described in this joint proxy statement/prospectus, is advisable to, and in the best interests of, Axonyx and its stockholders and has approved and adopted the Axonyx 2006 equity incentive plan. The Axonyx board of directors unanimously recommends that Axonyx stockholders vote "FOR" Axonyx Proposal No. 5 to approve the adoption of the Axonyx 2006 equity incentive plan, as described in this joint proxy statement/prospectus.

The Axonyx board of directors unanimously recommends a vote in favor of each of the six named nominees in Proposal No. 6.

The Axonyx board of directors has determined and believes that adjourning the Axonyx annual meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Axonyx Proposal Nos. 1, 2, 3 and 4 is advisable to, and in the best interests of, Axonyx and its stockholders and has approved and adopted the proposal. The Axonyx board of directors unanimously recommends that Axonyx stockholders vote "FOR" Axonyx Proposal No. 7 to adjourn the Axonyx annual meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Axonyx Proposal Nos. 1, 2, 3 and 4.

Record Date and Voting Power

Only holders of record of Axonyx common stock at the close of business on the record date, August 14, 2006, are entitled to notice of, and to vote at, the Axonyx annual meeting. There were approximately 334 holders of record of Axonyx common stock at the close of business on the record date. At the close of business on the record date, 53,680,721 shares of Axonyx common stock were issued and outstanding. Each share of Axonyx common stock entitles the holder thereof to one vote on each matter submitted for stockholder approval. See the section entitled "Principal Stockholders of Axonyx" in this joint proxy statement/prospectus for information regarding persons known to the management of Axonyx to be the beneficial owners of more than 5% of the outstanding shares of Axonyx common stock.

Voting and Revocation of Proxies

The proxy accompanying this joint proxy statement/prospectus is solicited on behalf of the board of directors of Axonyx for use at the Axonyx annual meeting.

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

- to vote in person, come to the Axonyx annual meeting and Axonyx 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 Axonyx before the Axonyx annual meeting, Axonyx will vote your shares as you direct.
- to vote over the telephone, dial the toll-free number on your proxy card or voting instruction form using a touch-tone phone and follow the recorded instructions. You will be asked to provide the company number and control number from the enclosed proxy card. Your vote must be received by 11:59 p.m., Eastern Time on September 27, 2006 to be counted.
- 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 11:59 p.m., Eastern Time on September 27, 2006 to be counted.

If your Axonyx 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 Axonyx shares. If you do not give instructions to your broker, your broker can vote your Axonyx 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 New York Stock Exchange 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 Axonyx shares will be treated as broker non-votes. It is anticipated that Axonyx Proposal Nos. 1, 2, 3, 4 and 5 will be non-discretionary items.

All properly executed proxies that are not revoked will be voted at the Axonyx annual meeting and at any adjournments or postponements of the Axonyx annual meeting in accordance with the instructions contained in the proxy. If a holder of Axonyx common stock executes and returns a proxy and does not specify otherwise, the shares represented by that proxy will be voted "FOR" Axonyx Proposal No. 1 to approve the issuance of shares of Axonyx common stock and the merger warrants in the merger, and for the resulting change in control; "FOR" Axonyx Proposal No. 2 to approve an amendment to Axonyx's articles of incorporation effecting the reverse stock split described in this joint proxy statement/prospectus; "FOR" Axonyx Proposal No. 3 to approve an amendment to Axonyx's articles of incorporation to change the name of "Axonyx Inc." to "TorreyPines Therapeutics, Inc."; "FOR" Axonyx Proposal No. 4 to approve a change of Axonyx's state of incorporation from Nevada to Delaware, as described in this joint proxy statement/prospectus; "FOR" Axonyx Proposal No. 5 to approve the adoption of the Axonyx 2006 Equity Incentive Plan, as described in this joint proxy statement/prospectus; "FOR" Axonyx Proposal No. 6 for the election of each of the six named nominees to Axonyx's board of directors; and "FOR" Axonyx Proposal No. 7 to adjourn the Axonyx annual meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of

Axonyx Proposal Nos. 1, 2, 3 and 4 in accordance with the recommendation of the Axonyx board of directors.

Axonyx stockholders of record, other than those Axonyx stockholders who have executed voting agreements, may change their vote at any time before their proxy is voted at the Axonyx annual meeting in one of three ways. First, a stockholder of record of Axonyx can send a written notice to the Secretary of Axonyx stating that the stockholder would like to revoke its proxy. Second, a stockholder of record of Axonyx can submit new proxy instructions either on a new proxy card, by telephone or via the Internet. Third, a stockholder of record of Axonyx can attend the Axonyx annual meeting and vote in person. Attendance alone will not revoke a proxy. If an Axonyx stockholder of record or a stockholder who owns Axonyx shares in "street name" has instructed a broker to vote its shares of Axonyx 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 Axonyx annual meeting of the holders of a majority of the shares of Axonyx common stock outstanding and entitled to vote at the Axonyx annual meeting is necessary to constitute a quorum at the meeting. Abstentions and broker non-votes will be counted towards a quorum. Approval of each of Axonyx Proposal Nos. 1, 5 and 7 requires the affirmative vote of the holders of a majority of the Axonyx common stock having voting power present in person or represented by proxy at the Axonyx annual meeting. Approval of each of Axonyx Proposal Nos. 2, 3 and 4 requires the affirmative vote of holders of a majority of the Axonyx common stock having voting power outstanding on the record date for the Axonyx annual meeting. For the election of directors (Axonyx Proposal No. 6), the six nominees receiving the most "For" votes from the shares having voting power present in person or represented by proxy will be elected.

Votes will be counted by the inspector of election appointed for the meeting, who will separately count "For", with respect to proposals other than Axonyx Proposal No. 6, and "Against" votes, abstentions and broker non-votes. Abstentions will be counted towards the vote total for each proposal (other than the election of directors) and will have the same effect as "Against" votes. Broker non-votes will have the same effect as "Against" votes for Axonyx Proposal Nos. 2, 3, and 4. For Axonyx Proposal Nos. 1, 5 and 7, broker non-votes will have no effect and will not be counted towards the vote total.

At the record date for the Axonyx annual meeting, the directors and executive officers of Axonyx beneficially owned approximately 8.5% of the outstanding shares of Axonyx common stock entitled to vote at the Axonyx annual meeting, and the directors and executive officers of Axonyx owning these shares are subject to voting agreements. Each stockholder that entered into a voting agreement has agreed to vote all shares of Axonyx common stock owned by him as of the record date in favor of the approval of the issuance of the shares of Axonyx common stock and merger warrants pursuant to the merger, the amendment to Axonyx's articles of incorporation effecting the reverse stock split and the name change from "Axonyx Inc." to "TorreyPines Therapeutics, Inc.", the change of Axonyx's state of incorporation from Nevada to Delaware, the Axonyx 2006 Equity Incentive Plan and any action in furtherance of the foregoing, and against any matter that would result in a breach of the merger agreement by Axonyx and any other action which is intended to, or could reasonably be expected to, impede, interfere with, delay, postpone, discourage or adversely affect the merger or any of the transactions contemplated by the merger agreement. As of June 15, 2006, neither TorreyPines nor any of TorreyPines' affiliates owned any shares of Axonyx common stock entitled to vote at the Axonyx annual meeting.

Solicitation of Proxies

In addition to solicitation by mail, the directors, officers, employees and agents of Axonyx may solicit proxies from Axonyx's stockholders by personal interview, telephone, telegram or otherwise. Axonyx has retained Georgeson Inc., a proxy solicitation firm, to solicit proxies for a fee of approximately $25,000 plus reimbursement of out-of-pocket expenses and a $4.25 per call charge for all telephone calls made in connection with proxy solicitations and a $5.00 per call charge for stockholder votes over the telephone. Axonyx will pay Georgeson Inc. an additional $25,000 in the event of a contested solicitation. Axonyx and TorreyPines will share equally the costs of printing and filing this joint proxy statement/prospectus and proxy card. Arrangements will also be made with brokerage firms and other custodians, nominees and fiduciaries who are record holders of Axonyx common stock for the forwarding of solicitation materials to the beneficial owners of Axonyx common stock. Axonyx 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.

Other Matters

As of the date of this joint proxy statement/prospectus, the Axonyx board of directors does not know of any business to be presented at the Axonyx annual meeting other than as set forth in the notice accompanying this joint proxy statement/prospectus. If any other matters should properly come before the Axonyx annual 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.

THE SPECIAL MEETING OF TORREYPINES STOCKHOLDERS

General

TorreyPines is furnishing this joint proxy statement/prospectus to holders of TorreyPines common stock and TorreyPines preferred stock in connection with the solicitation of proxies by the TorreyPines board of directors for use at the TorreyPines special meeting to be held on September 28, 2006 and at any adjournment or postponement thereof. This joint proxy statement/prospectus is first being furnished to stockholders of TorreyPines on or about [ ], 2006.

Date, Time and Place

The special meeting of TorreyPines stockholders will be held on September 28, 2006 at 9:00 a.m., local time, at the offices of Cooley Godward LLP, 4401 Eastgate Mall, San Diego, CA 92121.

Purposes of the TorreyPines Special Meeting

The purposes of the TorreyPines special meeting are:

1. To consider and vote upon TorreyPines Proposal No. 1 to adopt the merger agreement.

2. To consider and vote upon TorreyPines Proposal No. 2 to approve an amendment to TorreyPines' certificate of incorporation to change the name "TorreyPines Therapeutics, Inc." to "TPTX, Inc."

3. To consider and vote on TorreyPines Proposal No. 3 to adjourn the TorreyPines special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the adoption of the merger agreement.

4. To transact such other business as may properly come before the TorreyPines special meeting or any adjournments, postponements or continuations of the TorreyPines special meeting.

Recommendations of TorreyPines' Board of Directors

The TorreyPines board of directors has determined and believes that the merger is advisable and fair to, and in the best interests of, TorreyPines and its stockholders and has approved the merger and the merger agreement. The TorreyPines board of directors unanimously recommends that TorreyPines stockholders vote "FOR" TorreyPines Proposal No. 1 to adopt the merger agreement.

The TorreyPines board of directors has determined and believes that the name change is advisable, and in the best interests of, TorreyPines and its stockholders and has approved the name change. The TorreyPines board of directors unanimously recommends that TorreyPines stockholders vote "FOR" TorreyPines Proposal No. 2 to change the name "TorreyPines Therapeutics, Inc." to "TPTX, Inc."

The TorreyPines board of directors has concluded that the proposal to adjourn the TorreyPines special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the adoption of the merger agreement is advisable to, and in the best interests of, TorreyPines and its stockholders and has approved and adopted the proposal. Accordingly, the TorreyPines board of directors unanimously recommends that TorreyPines stockholders vote "FOR" TorreyPines Proposal No. 3 to adjourn the TorreyPines special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the adoption of the merger agreement.

Record Date; Shares of Common Stock and Preferred Stock Outstanding and Entitled to Vote

TorreyPines has fixed the close of business on August 14, 2006 as the record date for determination of the holders of TorreyPines common stock and TorreyPines preferred stock entitled to notice of and to attend and vote at the TorreyPines special meeting or at any adjournment or postponement thereof. As of the close of business on August 14, 2006, there were 3,456,052 shares of TorreyPines common stock and 48,994,673 shares of TorreyPines preferred stock, consisting of 8,794,800 shares of Series A preferred stock, 12,736,828 shares of Series B preferred stock, 23,220,199 shares of Series C preferred stock and 4,242,846 shares of Series C-2 preferred stock, outstanding and entitled to vote. Each share of TorreyPines common stock and each share of TorreyPines preferred stock entitles its holder to one vote at the TorreyPines special meeting on all matters properly presented at the TorreyPines special meeting.

Quorum and Vote of TorreyPines Stockholders Required

A quorum of stockholders is necessary to hold a valid meeting. The presence, in person or by proxy, at the TorreyPines special meeting of the holders of a majority of the shares of TorreyPines common stock and TorreyPines preferred stock issued and outstanding and entitled to vote at the TorreyPines special meeting is necessary to constitute a quorum at the TorreyPines special meeting. If a quorum is not present at the TorreyPines special meeting, TorreyPines expects that the meeting will be adjourned or postponed to solicit additional proxies.

The adoption of the merger agreement and the approval of an amendment to TorreyPines' certificate of incorporation to change the name "TorreyPines Therapeutics, Inc." to "TPTX, Inc.", requires the affirmative vote of (a) the holders of a majority of the shares of TorreyPines common stock and TorreyPines preferred stock outstanding on the record date and entitled to vote at the TorreyPines special meeting, voting as a single class and on an as-converted basis, and (b) the holders of two-thirds of the shares of TorreyPines preferred stock outstanding on the record date and entitled to vote at the TorreyPines special meeting, voting as a single class and on an as-converted basis.

The adjournment of the TorreyPines special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the adoption of the merger agreement requires the affirmative vote of the holders of a majority of the stock having voting power present in person or by proxy at the TorreyPines special meeting.

Abstentions count as being present to establish a quorum and will have the same effect as votes against the adoption of the merger agreement and against the adjournment of the TorreyPines special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the adoption of the merger agreement.

As of August 23, 2006, stockholders of TorreyPines that owned in the aggregate 1,100,000 shares of common stock and 39,379,400 shares of preferred stock of TorreyPines, representing approximately 32% of the outstanding TorreyPines common stock of the outstanding capital stock, approximately 80% of the outstanding TorreyPines preferred stock and approximately 77% of the aggregate outstanding TorreyPines capital stock, have entered into agreements to vote their shares of common stock and preferred stock in favor of the adoption of the merger agreement and to adjourn the TorreyPines special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the adoption of the merger agreement. All of these stockholders are executive officers, directors, or entities controlled by such persons, or 5% stockholders, of TorreyPines. Please see the section entitled "Agreements Related to the Merger Voting Agreements" in this joint proxy statement/prospectus. Notwithstanding the foregoing, if the board of directors of TorreyPines withdraws its recommendation in favor of the merger to the extent permitted under the merger agreement and TorreyPines receives a superior offer, as defined in the section entitled "The Merger Agreement No Solicitation" in this joint proxy statement/prospectus, the voting agreement will only apply to the number of shares of

TorreyPines capital stock that is equal to 33% of the outstanding TorreyPines common stock and preferred stock, voting together as a class, and 33% of the TorreyPines preferred stock, voting separately as a class.

If you do not submit a proxy card or vote at the TorreyPines special meeting, your shares of TorreyPines common stock and/or TorreyPines preferred stock will not be counted as present for the purpose of determining a quorum and will have the same effect as votes against the adoption of the merger agreement, but will not be counted for any purpose in determining whether to adjourn the TorreyPines special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the adoption of the merger agreement.

Voting of Proxies

TorreyPines requests that its stockholders complete, date and sign the accompanying proxy and promptly return it in the accompanying envelope or otherwise mail it to TorreyPines. All properly executed proxies that TorreyPines receives prior to the vote at the TorreyPines special meeting, and that are not revoked, will be voted in accordance with the instructions indicated on the proxies or, if no instruction is indicated, to adopt the merger agreement, to approve the name change and to adjourn the TorreyPines special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the adoption of the merger agreement. TorreyPines' board of directors does not currently intend to bring any other business before the TorreyPines special meeting and, so far as TorreyPines' board of directors knows, no other matters are to be brought before the special meeting. If other business properly comes before the TorreyPines special meeting, the proxies will vote in accordance with their own judgment.

In addition to solicitation by use of the mails, proxies may be solicited by directors, officers, employees or agents of TorreyPines in person or by telephone, telegram or other means of communication. No additional compensation will be paid to directors, officers or other regular employees of TorreyPines for such services.

Revocation of Proxies

Stockholders may revoke their proxies at any time prior to use by delivering to the Secretary of TorreyPines a signed notice of revocation or a later-dated signed proxy, or by attending the TorreyPines special meeting and voting in person. Attendance at the TorreyPines special meeting does not in itself constitute the revocation of a proxy. You may also attend the TorreyPines special meeting in person instead of submitting a proxy.

THE MERGER

This section and the section entitled "The Merger Agreement" in this joint proxy statement/prospectus describe the material aspects of the merger, including the merger agreement. While Axonyx and TorreyPines 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 joint proxy statement/prospectus for a more complete understanding of the merger and the merger agreement, including the merger agreement attached as Annex A, the opinion of Banc of America Securities attached as Annex B, and the other documents to which you are referred herein. See the section entitled "Where You Can Find More Information" in this joint proxy statement/prospectus.

Background of the Merger

Historical Background for Axonyx

In February 2005, Axonyx announced that Phenserine, its lead compound in development for the potential symptomatic and disease progression treatment for mild to moderate AD failed to achieve statistical significance in its primary endpoints in its first Phase III trial. Following this announcement, Axonyx halted additional patient recruitment for the then ongoing two additional Phase III clinical trials for Phenserine in order to reevaluate the planned Phenserine clinical program and consider the alternatives available to Axonyx to maximize stockholder value. Due in part to Phenserine's disappointing Phase III results and the lagging trading price of Axonyx common stock, the board of directors of Axonyx asked Axonyx management to evaluate Axonyx's existing product pipeline and the strategic alternatives available to Axonyx.

On March 23, 2005, Axonyx management presented to the board of directors of Axonyx a variety of strategic directions that Axonyx could pursue, including continuing to develop its existing portfolio of compounds, in-licensing additional products, out-licensing Phenserine, shifting Axonyx's focus from high-risk research and development activities to lower-risk, potentially nearer-term revenue generating activities, and entering into a strategic business combination. Following the presentation, the Axonyx board directed Axonyx management to identify, evaluate and recommend opportunities to expand Axonyx's product portfolio and to continue to explore other strategic alternatives available to Axonyx.

In April 2005, Axonyx management began a process of identifying and evaluating potential compounds that might be added to Axonyx's portfolio. Through the summer of 2005, Axonyx management continued to explore potential product acquisitions and licensing opportunities. As the process continued over the next several months, Axonyx management began to simultaneously identify and consider companies that might be candidates for a strategic business combination. Through February 2006 Axonyx management screened over 150 opportunities for product in-licensing or business combination transactions, evaluated over 50 such opportunities that met Axonyx's initial diligence criteria and had substantive discussions with 18 of these companies. As Axonyx's diligence proceeded, management further narrowed the list of candidates.

In June 2005, Axonyx management reported to the board of directors of Axonyx that it was exploring an out-licensing opportunity with respect to Phenserine rights in South Korea and another out-licensing opportunity for Phenserine in the veterinary market. Axonyx management also reported on its ongoing evaluation of potential product candidates as well as potential strategic business combination candidates.

In June 2005, following due diligence review and negotiation, Axonyx made a non-binding offer to acquire the assets of a privately-held Canadian neuropharmaceutical company. This acquisition did not proceed as the parties were unable to agree upon the value of the assets.

In July 2005, a second interim statistical analysis from a then-ongoing Phase IIb clinical trial of Phenserine again failed to produce statistically significant results for Phenserine. At a meeting of the

board of directors of Axonyx on July 25, 2005, the board of directors of Axonyx considered Axonyx's options with respect to continuing clinical trials with respect to Phenserine, as well as Axonyx's ongoing evaluation of strategic initiatives. Axonyx management reported that it had reviewed and evaluated a significant number of companies and compounds in its effort to identify additional product candidates that might be added to Axonyx's portfolio. Axonyx management reported that it was also continuing to evaluate potential candidates for a possible strategic business combination and seeking potential out-licensing opportunities for Phenserine. The Axonyx board of directors authorized Axonyx management to continue its examination of all of these strategic alternatives.

During July through October 2005 Axonyx conducted extensive due diligence review of and negotiations with a European biopharmaceutical company for in-licensing its CNS product candidates. These discussions evolved into negotiations regarding the potential acquisition of the company by Axonyx. However, this acquisition did not proceed as the parties were unable to agree upon relative valuations.

In August 2005, Axonyx entered into a non-binding letter of intent to acquire a potential CNS drug candidate from a different European pharmaceutical company, which was subject to further preclinical due diligence. Axonyx elected not to in-license this compound based on the results of that diligence and terminated discussions with this company.

In early November 2005, the Axonyx board of directors determined to retain a financial advisor to assist Axonyx in its review and consideration of strategic alternatives. After meeting with a number of investment banks, in November 2005, Axonyx engaged Banc of America Securities as its financial advisor. By mid-November 2005, with the assistance of Banc of America Securities, Axonyx management evaluated two potential strategic business combination candidates that met Axonyx's revised diligence criteria, referred to as Company A and Company B. Axonyx management also evaluated two additional potential strategic business combination candidates that met Axonyx's revised diligence criteria, referred to as Company C and Company D. In late November 2005, Axonyx retained Latham & Watkins LLP as special legal counsel to assist Axonyx in any merger or acquisition transaction that might occur.

In November 2005, Axonyx received a non-binding expression of interest from Company A with respect to a potential business combination. Axonyx and Company A conducted extensive mutual due diligence and negotiations during November and December 2005, but were unable to agree upon relative valuations.

During November through December 2005 Axonyx evaluated Company B, and in December 2005 Axonyx received an offer from Company B related to a potential business combination. Following due diligence, Axonyx management determined that the product candidates under development by Company B, which were primarily in the genetics area, were not an appropriate strategic fit for Axonyx's business strategy.

During November 2005 through February 2006 Axonyx held discussions with Company C and Company D, and by the end of 2005 had not received an offer from either company.

In December 2005, Axonyx retained a healthcare consultant to assist Axonyx in its efforts to outlicense Phenserine. By January 2006, Axonyx entered into an agreement to license the rights to Phenserine in South Korea to Daewoong Pharmaceutical Company, Ltd. However, despite contacting over 30 potential licensing partners and engaging in varying degrees of discussion and information exchange with a number of these companies, Axonyx was unable to outlicense Phenserine to any other parties through July 2006.

Historical Background for TorreyPines

On December 3, 2005, the board of directors and management of TorreyPines initiated a process to evaluate the advantages and disadvantages of various strategic options for TorreyPines, including an initial public offering, a private equity financing or a merger transaction. As part of this process, they conducted a review of potential merger partners that included United States based public companies. In parallel, they performed an exploratory assessment of the financial markets to evaluate the possibilities of, and risks associated with, an initial public offering in the United States or a private equity financing. The board of directors of TorreyPines subsequently decided that, given the then-current market conditions, it would not pursue an initial public offering or a private equity financing until at least the third quarter of 2006.

Background of Discussions between Axonyx and TorreyPines

On January 11, 2006, while attending the JPMorgan Annual Healthcare Conference, TorreyPines learned that Axonyx had retained Banc of America Securities as its financial advisor.

On January 17, 2006, representatives from TorreyPines' management requested that Banc of America Securities set up a meeting with members of Axonyx's board of directors and management to discuss the possibility of a merger transaction between Axonyx and TorreyPines.

In January 2006, Axonyx continued discussions with both Company C and Company D regarding a potential business combination.

On February 2, 2006, the board of directors of TorreyPines met and agreed to initiate discussions with Axonyx regarding a possible merger.

On February 8, 2006, TorreyPines and Axonyx entered into a confidentiality agreement and representatives of the board of directors and management of TorreyPines met with representatives of the board of directors and management of Axonyx at Axonyx's offices in New York. At the meeting, representatives of both companies gave presentations regarding their respective businesses. At this meeting, the representatives of TorreyPines presented a rationale for a merger of Axonyx and TorreyPines.

On February 9, 2006, Gosse B. Bruinsma M.D., President and Chief Executive Officer of Axonyx called Neil Kurtz, M.D., President and Chief Executive Officer of TorreyPines to inform him that Axonyx was interested in pursuing further discussions with at least three companies, one of which was TorreyPines. A brief discussion was held at that time between Drs. Bruinsma and Kurtz regarding what a merger between Axonyx and TorreyPines might entail and the due diligence process that the parties would need to undertake. During February 2006, Axonyx continued discussions with TorreyPines, Company C and Company D.

On February 16, 2006, Axonyx management met with Banc of America Securities to discuss Axonyx's ongoing exploration of strategic alternatives as well as TorreyPines and Company D.

On February 22, 2006, TorreyPines selected Piper Jaffray as its financial advisor in connection with a potential merger with Axonyx.

On February 28, 2006, the board of directors of Axonyx met and discussed the ongoing discussions and due diligence efforts in which Axonyx had engaged regarding the evaluation of potential companies and compounds and the due diligence reviews Axonyx had been performing. At this meeting, the board of directors of Axonyx considered a non-binding proposal it had received from Company C relating to a potential business combination of Company C and Axonyx. Negotiations with Company D concluded without Company D making any proposal to Axonyx regarding a transaction.

On March 6, 2006, Piper Jaffray, on behalf of TorreyPines, contacted Banc of America Securities, on behalf of Axonyx, to discuss generally the possible form and structure for the potential merger of Axonyx and TorreyPines.

On March 8, 2006, Dr. Bruinsma informed Dr. Kurtz that Axonyx was interested in moving forward with further discussions and in performing due diligence at TorreyPines' offices in La Jolla, California.

On March 8, 2006, Dr. Kurtz sent a letter to Eisai Co. Ltd., referred to as Eisai, one of TorreyPines' collaborators, informing Eisai, as required by TorreyPines' collaboration agreements with Eisai, that TorreyPines was considering the possibility of a merger with a third party. Dr. Kurtz subsequently met with representatives of Eisai at Eisai's offices in Tokyo, Japan to discuss the potential transaction and Eisai's rights under its collaboration agreements with TorreyPines.

From March 13, 2006 to March 15, 2006, representatives from Axonyx visited TorreyPines' offices in La Jolla, California for the purpose of conducting financial, business and scientific due diligence on TorreyPines.

On March 17, 2006, the board of directors of Axonyx held a meeting to discuss the status of discussions with TorreyPines and Company C. A representative from Latham & Watkins LLP reviewed with the board members their fiduciary duties in considering and evaluating the potential transactions. Axonyx's management informed the board that representatives from TorreyPines' management would attend the March 22 meeting of the Axonyx board of directors to provide the board with additional information regarding TorreyPines.

From March 21, 2006 to March 22, 2006, representatives of TorreyPines visited Axonyx's offices in New York for the purpose of conducting financial, business and scientific due diligence on Axonyx.

On March 22, 2006, at a meeting of the board of directors of Axonyx at Axonyx's offices in New York Dr. Kurtz gave a presentation on TorreyPines' drug portfolio and the rationale for the proposed merger to representatives of the board of directors and management of Axonyx at Axonyx's offices in New York. Following the presentation, the board of directors of Axonyx considered the relative strengths and weaknesses of the merger opportunities presented by TorreyPines and Company C. Following the discussion, the board of directors of Axonyx authorized Axonyx management to continue discussions with TorreyPines and Company C.

On March 22, 2006, TorreyPines executed an engagement letter formally retaining Piper Jaffray as TorreyPines' financial advisor in connection with the potential merger.

On March 28, 2006, TorreyPines submitted a non-binding written term sheet to Axonyx that outlined general terms of a proposed merger between TorreyPines and Axonyx.

On April 4, 2006, the board of directors of Axonyx held a meeting to review the term sheet provided by TorreyPines and the non-binding proposal received from Company C. A representative from Latham & Watkins LLP reviewed with the board members their fiduciary duties in considering and evaluating the potential transactions. Representatives of Banc of America Securities reviewed the TorreyPines proposal with the Axonyx board of directors. Following a discussion of the relative strengths and weaknesses of the two proposals, the board of directors of Axonyx authorized Axonyx management to continue discussions with TorreyPines regarding the potential merger transaction.

From March 28, 2006 through April 6, 2006, Axonyx and TorreyPines, together with their respective legal counsel, continued their mutual due diligence and engaged in discussions regarding the proposed terms of the merger, including among other things the general structure of the merger, the relative ownership of the securityholders of TorreyPines and Axonyx following the merger, the issuance of warrants to purchase Axonyx common stock to holders of TorreyPines preferred stock and the composition of the board of directors of the combined company following the merger.

On April 8, 2006, representatives of Axonyx and TorreyPines met at TorreyPines' offices in La Jolla, California to further discuss the financial terms of the merger, including the relative ownership of the securityholders of TorreyPines and Axonyx following the merger.

On April 12, 2006, the board of directors of TorreyPines met to discuss the proposed terms of the merger. Representatives of Piper Jaffray reviewed with the board of directors the proposed timeline for completing the merger and proposed deal terms including among other things the general structure of the merger, the relative ownership of the securityholders of TorreyPines and Axonyx following the merger, the exchange ratio in the merger and potential adjustments to such exchange ratio, the issuance of warrants to purchase Axonyx common stock to holders of TorreyPines preferred stock and the composition of the board of directors of Axonyx following the merger. In addition, the board of directors of TorreyPines discussed a potential private equity investment by certain stockholders of TorreyPines concurrent with the proposed merger. Following the presentation, the board of directors of TorreyPines unanimously approved the management of TorreyPines and outside legal counsel to TorreyPines continuing discussions related to a potential merger with Axonyx and negotiating deal terms and definitive documentation related thereto, subject to approval of the final deal terms and definitive documentation by the board of directors.

From April 12, 2006 to June 7, 2006 TorreyPines and Axonyx, together with their respective outside legal counsel, and financial advisors, continued their mutual due diligence and engaged in negotiations regarding the merger agreement, lock-up agreements and voting agreements, including potential adjustments to the exchange ratio in the merger, net cash requirements of Axonyx, the ability for each of the parties to consummate certain out-licensing transactions during the period between signing and closing of the merger, the requirement that Axonyx change the state of its incorporation from Nevada to Delaware in connection with the merger, the requirement that Axonyx effect a reverse stock split in connection with the merger, termination rights and termination fees and representations and warranties and covenants of the parties. Final agreement on these and other issues was reached over the course of numerous discussions involving members of TorreyPines' and Axonyx's respective management and legal counsel.

On April 25, 2006, the board of directors of Axonyx met to discuss the status and proposed terms of the merger agreement and the negotiations with TorreyPines, and the continuing discussions with Company C. The board also discussed a new proposal recently received from Company B related to a potential business combination and discussed Company B's product portfolio. The board then discussed the fact that TorreyPines had requested that Axonyx enter into an exclusivity agreement pursuant to which each of Axonyx and TorreyPines would agree to continue further merger discussions only with the other and to terminate all existing merger discussions with third parties. Following discussion and evaluation, the board of directors of Axonyx concluded that the opportunities presented by the TorreyPines proposal were superior to the opportunities presented by the other proposals, and that terminating merger discussions with Company C and Company B was prudent in order to enhance Axonyx's chances of reaching a negotiated agreement with TorreyPines. The board of directors of Axonyx then approved Axonyx entering into an exclusivity agreement with TorreyPines, provided that the exclusivity agreement permit each party to continue discussions with respect to the out-licensing of its product candidates.

On April 29, 2006, Axonyx and TorreyPines entered into an exclusivity agreement pursuant to which each of Axonyx and TorreyPines agreed to continue further merger discussions only with the other and which permitted each party to continue discussions with respect to the out-licensing of its product candidates.

During the week of May 8, 2006, Axonyx engaged consultants to assist Axonyx in evaluating TorreyPines' assumptions with respect to TorreyPines' product candidates and their future financial prospects in the relevant markets.

On May 10, 2006, the board of directors of TorreyPines met to discuss the status of the merger agreement and negotiations with Axonyx. Representatives from Cooley Godward LLP, outside legal counsel to TorreyPines, provided an update regarding the merger agreement including certain issues, including adjustments to the exchange ratios for certain events, the ability for each of the parties to consummate certain out-licensing transactions during the period between signing and closing of the merger, termination rights and termination fees. In addition, the board of directors of TorreyPines discussed a potential private equity investment by certain stockholders of TorreyPines in connection with the proposed merger. The board noted that certain issues remained open for resolution and authorized the management of TorreyPines and Cooley Godward LLP to continue negotiations with Axonyx.

On May 24, 2006, the board of directors of Axonyx met to discuss the status of discussions with TorreyPines. Representatives of Banc of America Securities reviewed with the board of directors of Axonyx the preliminary financial aspects of the transaction with TorreyPines. Representatives from Latham & Watkins LLP reviewed with the board members their fiduciary duties in considering and evaluating the potential transactions and discussed the terms of the draft merger agreement and other transaction documents, noting that certain issues remained open for resolution, including the final amount of the private equity investment that certain stockholders of TorreyPines would be making in TorreyPines in connection with the proposed merger. The board of directors authorized the management of Axonyx and Latham & Watkins LLP to continue negotiations with TorreyPines.

On June 5, 2006, the board of directors of TorreyPines convened by teleconference to discuss the proposed merger with Axonyx. TorreyPines management, together with representatives of Cooley Godward LLP, summarized the terms of the merger agreement for the board of directors and discussed the resolution of the various issues discussed at the meeting of the board of directors of TorreyPines on May 10, 2006. Following this summary and discussion, the board of directors of TorreyPines, after considering the terms of the merger agreement, unanimously approved the merger, the merger agreement and the transactions contemplated by the merger agreement and recommended the adoption of the merger agreement by the stockholders of TorreyPines. In addition, the board of directors authorized the sale of shares of TorreyPines preferred stock to certain stockholders of TorreyPines.

On June 5, 2006, the board of directors of Axonyx held a meeting to discuss the proposed merger with TorreyPines. Prior to the meeting, the board of directors of Axonyx had received copies of the transaction documents and written summaries thereof. Representatives from Latham & Watkins LLP reviewed with the board members their fiduciary duties in considering and evaluating the potential transaction. Axonyx management, together with representatives from Latham & Watkins LLP, summarized the terms of the merger agreement for the board of directors, including the consideration to be paid by Axonyx, the representations and warranties to be made by the parties, the non-solicitation provisions, the management of the combined company following the merger, the treatment of stock options and warrants in the merger, employee benefits, conditions to each party's obligation to complete the merger, the termination provisions of the merger agreement and the provisions governing the payment of expenses and termination fees. The board of directors also discussed the resolution of the various issues discussed at the meeting of the board of directors of Axonyx on May 24, 2006. Representatives of Banc of America Securities reviewed with the board of directors of Axonyx Banc of America Securities' updated financial analysis of the consideration to be paid by Axonyx in the proposed merger as of that date. Representatives of Latham & Watkins LLP advised the board of directors of Axonyx that the final amount of the TorreyPines private equity investment had not yet been finalized by TorreyPines, and that the amount of this financing was necessary in order to finalize the exchange ratio for the merger transaction. The board of directors of Axonyx then adjourned the meeting.

On June 6, 2006, the board of directors of Axonyx held a meeting in which Axonyx management advised the board of directors of the status of discussions with TorreyPines. The board of directors of Axonyx then adjourned the meeting.

On June 7, 2006, the board of directors of Axonyx held a meeting to discuss the proposed merger with TorreyPines. Representatives from Latham & Watkins LLP reviewed with the board members their fiduciary duties in considering and evaluating the potential transaction. Axonyx management, together with representatives of Latham & Watkins LLP, summarized the proposed final terms of the merger agreement. Representatives of Banc of America Securities reviewed with the board of directors of Axonyx its financial analysis of the consideration to be paid by Axonyx in the merger and delivered to the board of directors of Axonyx an oral opinion, which was confirmed by delivery of a written opinion dated June 7, 2006, to the effect that, as of that date and based on and subject to various assumptions and limitations described in its opinion, the consideration provided for in the proposed merger was fair, from a financial point of view, to Axonyx. Following this summary and discussion, the board of directors of Axonyx, after considering the terms of the merger agreement, unanimously approved the merger, the merger agreement, the voting agreements and the transactions contemplated by the merger agreement and recommended the adoption of the merger agreement by the stockholders of Axonyx.

On June 7, 2006 a definitive merger agreement was signed between Axonyx and TorreyPines. In addition, certain directors, officers and stockholders of TorreyPines executed voting agreements with Axonyx and certain directors, officers and stockholders of Axonyx executed voting agreements with TorreyPines. Prior to the opening of trading markets on June 8, 2006, the parties issue a joint press release announcing the execution of the merger agreement.

On August 23, 2006, Axonyx and TorreyPines entered into an amendment to the merger agreement that increased the number of directors of the combined company from eight to ten, four of whom would be continuing directors of Axonyx and six of whom would be appointed by TorreyPines. This amendment is included with the merger agreement attached as *Annex A* to this joint proxy statement/prospectus.

Reasons for the Merger

The following discussion of the parties' reasons for the merger contains a number of forward-looking statements that reflect the currents views of TorreyPines and/or Axonyx with respect to future events that may have an effect on their future financial performance. Forward-looking statements are subject to risks and uncertainties. Actual results and outcomes may differ materially from the results and outcomes discussed in the forward-looking statements. Cautionary statements that identify important factors that could cause or contribute to differences in results and outcomes included those discussed in the sections entitled "Risk Factors" and "Forward-Looking Statements" in this joint proxy statement/prospectus.

Mutual Reasons for the Merger

Axonyx and TorreyPines believe that the merger will result in a biopharmaceutical company with the following potential advantages:

Pipeline. The product candidate pipeline of the combined company will be composed of eight product candidates in various stages of development, with two product candidates for treatment of pain and six product candidates for AD. Of the two product candidates for treatment of pain, one product candidate has completed Phase IIa clinical trials and the other began a Phase I clinical trial in August 2006. Of the six candidates for AD, two product candidates are in Phase I clinical trials, and three product candidates are in preclinical development. The combined company's pipeline in AD also includes Phenserine, which is in Phase III clinical development and which the combined company may make available to third parties for licensing.

Markets. The combined company will have discovery and development capabilities across a spectrum of CNS diseases and disorders. The markets to be addressed by the clinical and preclinical stage product candidates of the combined company represent sizable and underserved or unmet medical needs. The product candidates may provide significant medical benefits for patients.

Financial Resources. The financial resources of the combined company will position it well to focus on execution with respect to its product candidate portfolio.

Management Team. The combined company will be led by experienced senior management from TorreyPines and a board of directors with representation from each of TorreyPines and Axonyx.

Axonyx's Reasons for the Merger

The Axonyx board of directors approved the merger based on a number of factors, including the following:

Expanded Pipeline. Axonyx currently has two product candidates in clinical development and one product candidate in preclinical development. The addition of the three TorreyPines product candidates currently being evaluated in clinical trials and a number of additional TorreyPines product candidates in preclinical development, broadens the product pipeline for treatments of CNS diseases and disorders.

Fairness Opinion. The board of directors considered the financial presentation of Banc of America Securities, including its opinion, dated June 7, 2006, to the board of directors of Axonyx as to the fairness, from a financial point of view and as of the date of the opinion, of the consideration provided for in the merger, as more fully described below under the caption "The Merger Opinion of Axonyx's Financial Advisor."

In addition to considering the factors outlined above, the Axonyx board of directors considered the following factors in reaching its conclusion to approve the merger and to recommend that the Axonyx stockholders approve the issuance of shares of Axonyx common stock and the merger warrants in the merger and the resulting change of control of Axonyx, all of which it viewed as supporting its decision to approve the business combination with TorreyPines:

the results of the due diligence review of TorreyPines' business and operations by Axonyx's management, legal advisors and financial advisors, which review supported Axonyx's belief that the addition of the TorreyPines product candidates would broaden Axonyx's product pipeline for the treatment of CNS diseases and disorders;

the terms and conditions of the merger agreement, including the following related factors:

the determination that the relative percentage ownership of Axonyx securityholders and TorreyPines securityholders is based on Axonyx's perceived valuations of each company at the time of the Axonyx board of directors' approval of the merger agreement;

the expectation that the merger will be treated as a reorganization for United States federal income tax purposes, with the result that in the merger Axonyx's securityholders will generally not recognize taxable gain or loss for United States federal income tax purposes;

the nature of the conditions to TorreyPines' obligation to consummate the merger and the limited risk of non-satisfaction of such conditions;

the limited number and nature of the conditions to TorreyPines' obligation to consummate the merger;

Axonyx's rights under the merger agreement to consider certain unsolicited acquisition proposals under certain circumstances should Axonyx receive a superior proposal;

the conclusion of Axonyx's board of directors that the potential termination fee of up to $2 million, and the circumstances when such fee may be payable, were reasonable;

the no solicitation provisions governing TorreyPines' ability to engage in negotiations with, provide any confidential information or data to, and otherwise have discussions with, any person relating to an alternative acquisition proposal;

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; and

the ability to increase Axonyx securityholders' ownership of the combined company if Axonyx completes an out-license of any of its product candidates to specified companies;

the voting agreements entered into by stockholders of TorreyPines representing approximately 77% of the outstanding capital stock as of June 7, 2006, pursuant to which those stockholders agreed, solely in their capacity as stockholders, to vote all of their shares of TorreyPines capital stock in favor of adoption of the merger agreement, unless the TorreyPines board of directors withdraws its recommendation if favor of the merger agreement under certain permitted circumstances in light of a superior proposal, in which case the voting agreement will only apply to 33% of the outstanding TorreyPines common stock and preferred stock (voting together as a class) and 33% of the TorreyPines preferred stock (voting separately as a class);

the likelihood of retaining key TorreyPines employees to help manage the combined company;

the likelihood that the merger will be consummated on a timely basis, including the likelihood that the merger will receive all necessary regulatory approvals;

the opportunity for Axonyx's securityholders to participate in the long-term value of TorreyPines' product candidate development programs as a result of the merger;

the complementary nature of the two companies' clinical programs;

the possibility that the combined entity would be able to take advantage of the potential benefits resulting from the combination of Axonyx's public company infrastructure and TorreyPines experienced management team;

the Axonyx board of directors' consideration of strategic alternatives to the merger, including engaging in a merger transaction with another company, continuing to operate Axonyx on a stand-alone basis or undertaking a liquidation of Axonyx; and

its understanding of Axonyx's business, including its product candidates, the expenses and fixed costs associated with Axonyx's operations and Axonyx's cash position, and of TorreyPines' business, including its product candidates, TorreyPines experienced management team, TorreyPines need for financing to continue development of its product candidates, and the prospects for value creation for Axonyx stockholders in connection with the merger.

In the course of its deliberations, Axonyx's board of directors also considered a variety of risks and other countervailing factors related to entering into the merger agreement, including:

the risk that TorreyPines may terminate the merger agreement if Axonyx's net cash balance at closing or at interim measurement dates, as calculated pursuant to the merger agreement, is less than $38 million;

the risk that TorreyPines may terminate the merger agreement if Axonyx completes an out-license of any of its product candidates to specified companies;

the risk that TorreyPines securityholders may increase their ownership of the combined company if TorreyPines completes an out-license of any of its product candidates to specified companies;

the $2 million termination fee payable to TorreyPines upon the occurrence of certain events and the potential effect of such termination fee in deterring other potential acquirors from proposing an alternative transaction that may be more advantageous to Axonyx securityholders;

the risks, challenges and costs inherent in combining the operations of the two companies and the substantial expenses to be incurred in connection with the merger, including the possibility that delays or difficulties in completing the integration could adversely affect the combined company's operating results and preclude the achievement of some of the benefits anticipated from the merger;

the possible volatility, at least in the short term, of the trading price of Axonyx's common stock resulting from the merger announcement;

the risk of diverting management's attention from other strategic priorities to implement merger integration efforts;

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 on Axonyx's reputation;

the risk to Axonyx's business, operations and financial results in the event that the merger is not consummated;

the strategic direction of the combined board; and

various other risks associated with the combined company and the merger, including those described in the section entitled "Risk Factors" in this joint proxy statement/prospectus.

The foregoing information and factors considered by Axonyx's board of directors are not intended to be exhaustive but are believed to include all of the material factors considered by Axonyx's board of directors. In view of the wide variety of factors considered in connection with its evaluation of the merger and the complexity of these matters, Axonyx's board of directors 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 Axonyx's board of directors may have given different weight to different factors. Axonyx's board of directors conducted an overall analysis of the factors described above, including thorough discussions with, and questioning of, Axonyx's management and Axonyx's legal and financial advisors, and considered the factors overall to be favorable to, and to support, its determination.

TorreyPines' Reasons for the Merger

TorreyPines' board of directors approved the merger based on a number of factors, including the following:

the fact that Axonyx's available cash, together with TorreyPines' cash resources, are anticipated to meet TorreyPines projected operating requirements through 2007 and to enable TorreyPines to reach its projected near-term product development milestones, and that, without Axonyx's cash, TorreyPines would need to raise additional funds through private or public equity offerings, partnerships with pharmaceutical companies, project financing, debt financing or other arrangements;

the merger with Axonyx was judged to be a more time and cost-effective means to access capital than other options considered, including an initial public offering and a private equity financing given TorreyPines' stage of development and the state of the market for initial public offerings;

the relative certainty of amount and timing of access to capital through the merger with Axonyx compared to other financing options considered;

the combination of Axonyx's status as an existing public company with a product candidate pipeline in the AD area combined with TorreyPines' product candidate pipeline in the migraine, chronic pain and AD areas;

the range of options available to the combined company to access private and public equity markets should additional capital be needed in the future will likely be greater as a public company than TorreyPines' existing options;

its understanding of TorreyPines' business including, its product candidates, TorreyPines' experienced management team, TorreyPines' need for financing to continue development of its product candidates, and the prospects for value creation for TorreyPines stockholders in connection with the merger, and of Axonyx's business, including its product candidates, the expenses and fixed costs associated with Axonyx's operations and Axonyx's cash position.

the belief that the terms of the merger agreement, including the parties' representations, warranties and covenants, and the conditions to their respective obligations, such as the condition that Axonyx have a specified amount of net cash at closing and at interim measurement dates, as calculated pursuant to the merger agreement, are reasonable under the circumstances.

In addition to considering the strategic factors outlined above, the TorreyPines board considered the following factors in reaching its conclusion to approve the merger, all of which it viewed as supporting its decision to approve the business combination with Axonyx:

Axonyx's attractiveness as a merger partner, including its:

existing capital resources, particularly in light of TorreyPines' cash needs and current cash resources;

potential access to public capital and stock liquidity; and

significant synergy between the product candidate pipelines of TorreyPines and Axonyx;

the opportunity for TorreyPines stockholders to participate in the long-term value of TorreyPines' and Axonyx's product candidate development programs through the ownership of common stock in a public company;

the aggregate value to be received by TorreyPines securityholders in the merger;

the terms and conditions of the merger agreement, including the following related factors:

the determination that the relative percentage ownership of Axonyx securityholders and TorreyPines securityholders is consistent with market practice for a merger of this type and captures the respective ownership interests of the Axonyx and TorreyPines securityholders in the combined company based on TorreyPines' perceived valuations of each company at the time of the TorreyPines board of directors' approval of the merger agreement;

the expectation that the merger will be treated as a reorganization for United States federal income tax purposes, with the result that in the merger TorreyPines stockholders will generally not recognize taxable gain or loss for United States federal income tax purposes;

the limited number and nature of the conditions to Axonyx's obligation to consummate the merger;

TorreyPines' rights under the merger agreement to consider certain unsolicited acquisition proposals under certain circumstances should TorreyPines receive a superior proposal; and

the conclusion of TorreyPines' board of directors that the potential termination fee of up to $2 million, and the circumstances when such fee may be payable, were reasonable;

the fact that shares of Axonyx common stock issued to TorreyPines stockholders will be registered on Form S-4 and will be freely tradable for TorreyPines stockholders who are not affiliates of TorreyPines and who are not parties to lock-up agreements;

the likelihood that the merger will be consummated on a timely basis, including the likelihood that the merger will receive all necessary regulatory approvals; and

the major risks and uncertainties of financing alternatives to the merger.

In the course of its deliberations, TorreyPines' board of directors also considered a variety of risks and other countervailing factors related to entering into 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 TorreyPines and TorreyPines' ability to obtain financing in the future in the event the merger is not completed;

the termination fee of up to $2 million payable to Axonyx 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 TorreyPines stockholders;

the risk of diverting management's attention from other strategic priorities to implement the merger and integrate each company's operations and infrastructure following the merger;

the risk that the merger might not be consummated in a timely manner or at all;

the challenges and costs of combining each company's operations and the substantial expenses to be incurred in connection with the merger, including the risks that delays or difficulties in completing integration activities and such other expenses, as well as the additional public company expenses and obligations that TorreyPines will be subject to in the merger that it has not previously been subject to, could adversely affect the combined company's operating results and preclude the achievement of some benefits anticipated from the merger; and

various other applicable risks associated with the combined company and the merger, including the risks associated with obtaining a positive Axonyx shareholder vote and including those described in the section entitled "Risk Factors" in this joint proxy statement/prospectus.

The foregoing information and factors considered by TorreyPines' board of directors are not intended to be exhaustive but are believed to include all of the material factors considered by TorreyPines' board of directors. In view of the wide variety of factors considered in connection with its evaluation of the merger and the complexity of these matters, the TorreyPines board of directors 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 TorreyPines board of directors may have given different weight to different factors. The TorreyPines board of directors conducted an overall analysis of the factors described above, including thorough discussions with, and questioning of, TorreyPines' management and TorreyPines' legal and financial advisors, and considered the factors overall to be favorable to, and to support, its determination.

Opinion of Axonyx's Financial Advisor

The board of directors of Axonyx retained Banc of America Securities as its financial advisor in connection with a potential transaction. Banc of America Securities is an internationally recognized investment banking firm which is regularly engaged in the valuation of businesses and securities in connection with mergers and acquisitions, negotiated underwritings, secondary distributions of listed and unlisted securities, private placements and valuations for corporate and other purposes. The board of directors of Axonyx selected Banc of America Securities on the basis of Banc of America Securities' experience in transactions similar to the merger, its reputation in the healthcare industry and investment community and its familiarity with Axonyx and its business.

On June 7, 2006, at a meeting of the board of directors of Axonyx held to evaluate the proposed merger, Banc of America Securities delivered to the board of directors of Axonyx an oral opinion, which was confirmed by delivery of a written opinion dated June 7, 2006, to the effect that, as of the date of the opinion and based on and subject to various assumptions and limitations described in its opinion, the consideration provided for in the proposed merger was fair, from a financial point of view, to Axonyx.

The full text of Banc of America Securities' written opinion to the board of directors of Axonyx, which describes, among other things, the assumptions made, procedures followed, factors considered and limitations on the review undertaken, is attached as *Annex B* to this joint proxy statement/prospectus and is incorporated by reference in its entirety into this joint proxy statement/prospectus. Holders of Axonyx common stock are encouraged to read the opinion carefully in its entirety. The following summary of Banc of America Securities' opinion is qualified in its entirety by reference to the full text of the opinion.

Banc of America Securities delivered its opinion to the board of directors of Axonyx for the benefit and use of the board of directors in connection with and for purposes of its evaluation of the consideration provided for in the merger. It does not constitute a recommendation to you on how to vote or act in connection with the merger.

For purposes of its opinion, Banc of America Securities:

- reviewed certain publicly available financial statements of Axonyx and other publicly available business and financial information of Axonyx and TorreyPines, respectively;
- reviewed certain internal financial statements and other internal financial and operating data concerning Axonyx and TorreyPines, respectively;
- discussed the past and current operations, financial condition and prospects of Axonyx and TorreyPines with senior executives of Axonyx and TorreyPines;
- reviewed certain financial forecasts relating to Axonyx prepared by the management of Axonyx, referred to as the Axonyx forecasts, and certain financial forecasts relating to TorreyPines prepared by the management of Axonyx and based on assumptions, data and guidance provided by the managements of TorreyPines and Axonyx, referred to as the TorreyPines forecasts;
- reviewed and discussed with Axonyx and its tax advisors certain net operating losses of Axonyx and TorreyPines, referred to as NOLs, the benefits of which are anticipated by Axonyx to be available to Axonyx and TorreyPines;
- reviewed the reported prices and trading activity for Axonyx common stock;
- compared the future financial performance of Axonyx and the prices and trading activity of Axonyx common stock with that of certain other publicly traded companies Banc of America Securities deemed relevant and compared the financial performance of TorreyPines with that of certain publicly traded companies Banc of America Securities deemed relevant;

reviewed the relative financial contributions of Axonyx and TorreyPines to the future financial performance of the combined company on a pro forma basis following consummation of the transaction;

participated in discussions and negotiations among representatives of Axonyx, TorreyPines and their respective advisors;

considered the results of the efforts of Axonyx and Banc of America Securities, at the direction of the board of directors of Axonyx, to solicit indications of interest from third parties with respect to a possible transaction with Axonyx;

reviewed with Axonyx a report relating to the revenue potential for oral migraine products in TorreyPines' pipeline prepared for Axonyx by a third party consultant and a report relating to NGX-424 SC, the subcutaneous migraine product in TorreyPines' pipeline, prepared for TorreyPines by another third party consultant, which are together referred to as the consultants' reports;

reviewed the merger agreement;

reviewed the terms of the warrant;

reviewed the financing agreement; and

performed such other analyses and considered such other factors as Banc of America Securities deemed appropriate.

Banc of America Securities assumed and relied upon, without independent verification, the accuracy and completeness of the financial and other information reviewed by them for the purposes of its opinion. With respect to the Axonyx forecasts prepared by the management of Axonyx, Banc of America Securities assumed, at Axonyx's direction, that such forecasts had been reasonably prepared on bases reflecting the best currently available estimates and good faith judgments of the management of Axonyx as to the future financial performance of Axonyx. Axonyx advised Banc of America Securities that the management of TorreyPines had not prepared financial forecasts related to TorreyPines. Accordingly, upon TorreyPines' advice and at Axonyx's direction, Banc of America Securities assumed that the TorreyPines forecasts had been reasonably prepared on bases reflecting the best currently available estimates and good faith judgments of the managements of Axonyx and TorreyPines as to the future financial performance of TorreyPines. In addition, Banc of America Securities relied, at Axonyx's direction, upon the assessments of Axonyx and TorreyPines as to the products and product candidates of each of Axonyx and TorreyPines and as to the risks (including the probability of successful testing, development, approval by appropriate governmental authorities and launch) associated with such products and product candidates. Banc of America Securities also relied, at Axonyx's direction, on the assessments of Axonyx as to Axonyx's and TorreyPines' ability to utilize the NOLs and Banc of America Securities assumed, at Axonyx's direction, that such NOLs will be utilized in the amounts and at the times projected by Axonyx.

Banc of America Securities did not make any independent appraisal or valuations of the assets or liabilities of Axonyx or TorreyPines, nor had Banc of America Securities been furnished with any such appraisals or valuations (other than the consultants' reports, which Banc of America Securities reviewed and relied upon without independent verification for purposes of this opinion). With respect to the consultants' reports, Banc of America Securities assumed, at the direction of Axonyx, that each consultant report was reasonably prepared on bases reflecting the best currently available estimates and good faith judgments of the third party consultant that prepared such report as to the subject matter contained therein. For purposes of its opinion, Banc of America Securities assumed, at Axonyx's direction, that neither Axonyx or TorreyPines will complete an Axonyx permitted out-license or a TorreyPines permitted out-license, respectively, and accordingly, no adjustment will be made to the

exchange ratio with respect thereto. Banc of America Securities further assumed, with the consent of Axonyx, that the merger will qualify for federal income tax purposes as a reorganization under the provisions of Section 368(a) of the Internal Revenue Code of 1986, as amended, referred to herein as the Code, and that the merger and related transactions will be consummated as provided in or contemplated by the merger agreement, with full satisfaction of all covenants and conditions set forth in the merger agreement and without any waivers thereof. Banc of America Securities further assumed, with the consent of Axonyx, that all governmental, regulatory or other consents and approvals necessary for the consummation of the merger will be obtained without any adverse effect on Axonyx, TorreyPines or the merger.

Banc of America Securities expressed no view or opinion as to any terms or aspects of the merger (including, without limitation, the form or structure of the merger or the effect of any adjustment to the exchange ratio should Axonyx or TorreyPines complete an Axonyx permitted out-license or a TorreyPines permitted out-license, respectively, on or prior to five business days before the annual meeting of Axonyx stockholders) other than the consideration to the extent expressly specified in its opinion, and Banc of America Securities expressed no view or opinion as to any related transactions (including, without limitation, the reincorporation and the reverse stock split). In addition, no opinion was expressed as to the relative merits of the transaction in comparison to other transactions available to Axonyx or in which Axonyx might engage or as to whether any transaction might be more favorable to Axonyx as an alternative to the transaction, nor did Banc of America Securities express any opinion as to the underlying business decision of the board of directors of Axonyx to proceed with or effect, the transaction. The opinion does not in any manner address the prices at which Axonyx common stock may trade at any time.

Banc of America Securities' opinion was necessarily based on economic, market and other conditions as in effect on, and the information made available to Banc of America Securities as of, the date of its opinion. Accordingly, although subsequent developments may affect its opinion, Banc of America Securities did not assume any obligation to update, revise or reaffirm its opinion.

The following represents a brief summary of the material financial analyses presented by Banc of America Securities to the board of directors of Axonyx in connection with its opinion. **The financial analyses summarized below include information presented in tabular format. In order to fully understand the financial analyses performed by Banc of America Securities, the tables must be read together with the text of each summary. The tables alone do not constitute a complete description of the financial analyses performed by Banc of America Securities. Considering the data in the tables below without considering the full narrative description of the financial analyses, including the methodologies and assumptions underlying the analyses, could create a misleading or incomplete view of the financial analyses performed by Banc of America Securities.**

Implied Equity Ownership Percentage Split

Based on the terms of the merger agreement, and assumptions, data and guidance from management of Axonyx and TorreyPines, Banc of America Securities calculated the equity value of Axonyx, implied equity value of TorreyPines and the resulting implied equity ownership percentage in the combined company of stockholders of Axonyx and TorreyPines resulting from the merger. Banc of Americas Securities determined an equity value of Axonyx of $50.7 million by calculating the product of the number of Axonyx shares of common stock on a fully-diluted basis and the Axonyx common stock price of $0.942, which was the average price of Axonyx common stock for the period of five business days prior to two days before June 7, 2006, the date of the merger agreement. Banc of America Securities compared the equity value of Axonyx with the implied equity value reference ranges derived from Banc of America Securities' analyses, described in this joint proxy statement/prospectus beginning on page 84. Banc of America Securities then calculated an implied equity value of TorreyPines of $70.9 million based on the Axonyx common stock price of $0.942 per share, the

proposed equity ownership percentage split to result from the merger of 58.3% to 41.7% in favor of TorreyPines shareholders, and the fact that in the merger, holders of shares of TorreyPines common and preferred stock would receive 1.299 shares of Axonyx common stock for each share of TorreyPines common or preferred stock held (prior to any adjustment of the exchange ratio as provided for in the merger agreement). Banc of America Securities compared the implied equity value of TorreyPines with the implied equity value reference ranges derived from Banc of America Securities' analyses, described in this joint proxy statement/prospectus beginning on page 87.

In addition, Banc of America Securities calculated an adjusted implied equity value of TorreyPines of $73.2 million based on the fact that holders of shares of TorreyPines preferred stock will be granted a number of warrants to purchase 12,000,000 shares of Axonyx common stock, in the aggregate, at a price of $1.04 per share of Axonyx common stock, subject to adjustment as provided by the terms of each warrant. All share information was based on data furnished by the managements of Axonyx and TorreyPines. Banc of America Securities calculated the net value of the warrants to be $2.29 million using a Black-Scholes model. Banc of America Securities compared the adjusted implied equity value of TorreyPines with the implied equity value reference ranges derived from Banc of America Securities' analyses, described in this joint proxy statement/prospectus beginning on page 87.

As more fully described in the merger agreement, the exchange ratio of 1.299 assumed that, pursuant to the Series C-2 Participating Preferred Stock Purchase Agreement, referred to as the financing agreement, dated June 7, 2006, by and among TorreyPines and certain existing stockholders of TorreyPines, there was an investment by such stockholders of $6,364,269 million, in the aggregate, in TorreyPines Series C-2 preferred stock, referred to herein as the TorreyPines preferred stock financing, on or prior to five business days before the annual meeting of Axonyx stockholders, which TorreyPines preferred stock financing was consummated on June 22, 2006. The aggregate consideration to be received by holders of shares of TorreyPines common stock and TorreyPines preferred stock pursuant to the exchange ratio, as it may be adjusted, as applicable, and holders of shares of TorreyPines preferred stock pursuant to the warrants, is hereinafter referred to as the consideration.

Based upon the consideration to be received in the merger, Banc of America Securities calculated the equity value of Axonyx, the implied equity value of TorreyPines, the adjusted implied equity value of TorreyPines and implied equity ownership percentage split in the combined company resulting from the merger:

Implied Ownership by Stockholders of:	Without warrants	Adjusted for net value of warrants
Axonyx	41.7%	40.9%
TorreyPines	58.3%	59.1%
Exchange Ratio	1.299	1.342

Axonyx Financial Analysis

Selected Publicly Traded Company Analysis. Banc of America Securities reviewed certain publicly available financial information relating to Axonyx and the following fifteen selected publicly traded companies:

Advancis Pharmaceutical Corporation

Avalon Pharmaceuticals, Inc.

Corautus Genetics Inc.

EntreMed, Inc.

Inhibitex, Inc.

Iomai Corporation

La Jolla Pharmaceutical Company

Medivation, Inc.

Manhattan Pharmaceuticals, Inc.

Pharmos Corporation

Praecis Pharmaceuticals Incorporated

Prana Biotechnology Limited

Repros Therapeutics Inc.

Tapestry Pharmaceuticals, Inc.

Threshold Pharmaceuticals, Inc.

Banc of America Securities reviewed the technology value for each selected company, which value is the difference between each selected company's fully-diluted market cap as of June 6, 2006 and the net cash for each selected company. The number of shares outstanding and the net cash for each selected company was as of the last reported quarter for each selected company and pro forma for subsequent equity financings, to the extent applicable to each such selected company. Banc of America Securities then compared the implied equity value of Axonyx by adding Axonyx's cash balance of approximately $49.5 million as of June 30, 2006, as provided by management of Axonyx, to the range of selected technology values for the selected companies, and then compared the resulting implied equity value of Axonyx to the fully-diluted market capitalization of Axonyx based on an a stock price of Axonyx common stock of $0.942 per share, which was the average stock price for Axonyx common stock for the period of five business days prior to two days before the date of the merger agreement. The analysis indicated the following implied equity value reference range, as compared to the fully-diluted market capitalization of Axonyx:

Axonyx Market Capitalization	Implied Equity Value Reference Range
$ 50.7 million	$70 to $100 million

No company used in this analysis is identical to Axonyx or its business. Accordingly, an evaluation of the results of this analysis is not entirely mathematical. Rather, this analysis involves complex considerations and judgments concerning differences in financial and operating characteristics and other factors that could affect the public trading or other values of the companies to which Axonyx was compared.

Discounted Forward Price/Earnings Multiple Analysis. Banc of America Securities performed a discounted forward price/earnings multiple, referred to herein as P/E multiple, analysis to derive the implied current equity value of Axonyx based on the projected net income of Axonyx for the calendar years of 2013 and 2014 based on the Axonyx forecasts. In this analysis, Banc of America Securities reviewed the P/E multiples for the following profitable biotech companies as of June 6, 2006:

Amgen Inc.

Biogen Idec Inc.

Celgene Corporation

Cephalon, Inc.

Genentech, Inc.

Genzyme Corporation

Gilead Sciences Inc.

ImClone Systems Incorporated

MedImmune, Inc.

Sepracor Inc.

Serono S.A.

Banc of America Securities reviewed P/E multiples for the selected companies and derived a mean P/E multiple of 23.9x and a median P/E multiple of 21.8x. Banc of America Securities then calculated the hypothetical future equity value of Axonyx in each of calendar years 2013 and 2014 by applying selected P/E multiple ranges to the net income of Axonyx for the calendar years of 2013 and 2014 based on net income of Axonyx calculated using pre-tax earnings estimates and applying an assumed tax rate of 38%. Banc of America Securities then calculated the implied current equity value of Axonyx for each of calendar year 2013 and 2014 by discounting back to the present at a discount rate of 22%. Banc of America Securities then compared the implied current equity value of Axonyx for each of calendar year 2013 and 2014 to the fully-diluted market capitalization of Axonyx based on a stock price of Axonyx common stock of $0.942 per share, which was the average stock price for Axonyx common stock for the period of five business days prior to two days before the date of the merger agreement. Estimated financial data for Axonyx were provided by the Axonyx forecasts. Financial data for the selected companies were based on publicly available information. The analysis indicated the following implied equity value reference range, as compared to the fully-diluted market capitalization of Axonyx:

Axonyx Market Capitalization	**Implied Equity Value Reference Range**	
	2013 Net Income ($18.1 million)	2014 Net Income ($31.9 million)
$ 50.7 million	$90 to $113 million	$130 to $163 million

No company used in this analysis is identical to Axonyx or its business. Accordingly, an evaluation of the results of this analysis is not entirely mathematical. Rather, this analysis involves complex considerations and judgments concerning differences in financial and operating characteristics and other factors that could affect the public trading or other values of the companies to which Axonyx was compared.

Discounted Cash Flow Analysis. Banc of America Securities performed a discounted cash flow analysis of Axonyx to calculate the estimated present value, as of June 30, 2006, of the implied equity value plus the value of any Axonyx's NOLs, in light of the standalone unlevered, after-tax free cash flows that Axonyx could generate though the fiscal year 2026. In this analysis, Banc of America Securities calculated a range of estimated terminal values, which are estimates of the future value of Axonyx's business at the end of fiscal year 2025, by applying a range of perpetuity growth rates ranging from 0.0% to 2.0%. The enterprise values of Axonyx, which is a measure of equity value plus total debt minus excess cash and cash equivalents, each as of June 30, 2006, were then calculated based on the present value of the terminal value and free cash flows using discount rates ranging from 20.0% to 24.0%. Corresponding equity values were calculated by adding cash on hand at Axonyx as of June 30, 2006 and subtracting total debt, whereupon the net present value of Axonyx's NOLs were added to calculate the implied equity value of Axonyx. Historical financial data for Axonyx was provided by the management of Axonyx and estimated financial data, including the value and availability of NOLs, for

Axonyx were provided by the Axonyx forecasts. The analysis indicated the following implied equity value reference range, as compared to the fully-diluted market capitalization of Axonyx:

Axonyx Market Capitalization	Implied Equity Value Reference Range
$ 50.7 million	$67 to $81 million

TorreyPines Financial Analysis

Selected Publicly Traded Company Analysis. Banc of America Securities reviewed certain publicly available financial information relating to TorreyPines and the following seven selected publicly traded companies:

Arqule, Inc.

Idera Pharmaceuticals, Inc.

Kosan Biosciences Incorporated

Neurogen Corporation

Sangamo BioSciences, Inc.

Sgx Pharmaceuticals, Inc.

Sunesis Pharmaceuticals, Inc.

Banc of America Securities reviewed the technology value for each selected company, which value is the difference between each selected company's fully-diluted market cap as of June 6, 2006 and the net cash for each selected company. The number of shares outstanding and the net cash for each selected company was as of the last reported quarter for each selected company and pro forma for subsequent equity financings, to the extent applicable to each such selected company. Banc of America Securities then compared the range of selected technology values for the selected companies with the implied value of TorreyPines based on the exchange ratio provided for in the merger as well as the adjusted implied equity value of TorreyPines giving effect to the value of the warrants, applying a 20% private company discount to the value of TorreyPines. Financial information for TorreyPines was based on publicly available sources as well as the TorreyPines forecasts, including as assumption provided by TorreyPines management of an amount of net cash equal to $27 million as of June 30, 2006, which assumed that the TorreyPines preferred stock financing was consummated. This analysis indicated the following implied equity value reference range, as compared to the implied equity value and adjusted implied equity value for TorreyPines:

Implied Equity Value for TorreyPines	Adjusted Implied Equity Value for TorreyPines	Implied Equity Value Reference Range
$ 70.9 million	$73.2 million	$86 to $102 million

No company used in this analysis is identical to TorreyPines or its business. Accordingly, an evaluation of the results of this analysis is not entirely mathematical. Rather, this analysis involves complex considerations and judgments concerning differences in financial and operating characteristics and other factors that could affect the public trading or other values of the companies to which TorreyPines was compared.

Discounted Forward Price/Earnings Multiple Analysis. Banc of America Securities performed a discounted forward P/E multiple analysis to derive the implied current equity value of TorreyPines based on the projected net income of TorreyPines for the calendar years of 2013 and 2014 based on the

TorreyPines forecasts. In this analysis, Banc of America Securities reviewed the P/E multiples for the following profitable biotech companies as of June 6, 2006:

Amgen Inc.

Biogen Idec Inc.

Celgene Corporation

Cephalon, Inc.

Genentech, Inc.

Genzyme Corporation

Gilead Sciences Inc.

ImClone Systems Incorporated

MedImmune, Inc.

Sepracor Inc.

Serono S.A.

Banc of America Securities reviewed P/E multiples for the selected companies and derived a mean P/E multiple of 23.9x and a median P/E multiple of 21.8x. Banc of America Securities then calculated the hypothetical future equity value of TorreyPines in each of calendar years 2013 and 2014 by applying selected P/E multiple ranges to the net income of TorreyPines for the calendar years of 2013 and 2014 based on net income of TorreyPines calculated using pre-tax earnings estimates and applying an assumed tax rate of 38%. Banc of America Securities then calculated the implied public market equity value for TorreyPines for each of calendar year 2013 and 2014 by discounting back to the present at a discount rate of 22%. Banc of America Securities then calculated the implied current equity value of TorreyPines in each of calendar years 2013 and 2014 by deducting an estimate of required future equity financing based on a cash burn of $101.8 million from 2006 through 2011 until the first year of positive cash flow in 2012, less cash on hand of $27 million as of June 30, 2006, all as per the TorreyPines forecasts and assuming that the TorreyPines preferred stock financing was consummated, and applying a private company discount of 20%. Historical financial data for TorreyPines was provided by the management of TorreyPines and estimated financial data for TorreyPines were provided by the TorreyPines forecasts. Financial data for the selected companies were based on publicly available information. This analysis indicated the following implied equity value reference range, as compared to the implied equity value and adjusted implied equity value for TorreyPines:

Implied Equity Value for TorreyPines	**Adjusted Implied Equity Value for TorreyPines**	**Implied Equity Value Reference Range**	
		2013 Net Income ($41 million)	2014 Net Income ($71.5 million)
$ 70.9 million	$73.2 million	$103 to $144 million	$173 to $231 million

No company used in this analysis is identical to TorreyPines or its business. Accordingly, an evaluation of the results of this analysis is not entirely mathematical. Rather, this analysis involves complex considerations and judgments concerning differences in financial and operating

characteristics and other factors that could affect the public trading or other values of the companies to which TorreyPines was compared.

Discounted Cash Flow Analysis. Banc of America Securities performed a discounted cash flow analysis of TorreyPines to calculate the estimated present value, as of June 30, 2006, of the implied

equity value, plus the value of any TorreyPines NOLs, in light of the standalone unlevered, after-tax free cash flows that TorreyPines could generate though fiscal year 2025. In this analysis, Banc of America Securities calculated a range of estimated terminal values, which are estimates of the future value of TorreyPines' business at the end of fiscal year 2025, by applying a range of perpetuity growth rates ranging from 0.0% to 2.0%. The enterprise values of TorreyPines, which is a measure of equity value plus total debt minus excess cash and cash equivalents, were then calculated based on the present value of the terminal value and free cash flows using discount rates ranging from 20.0% to 24.0%. Corresponding equity values were calculated by adding cash on hand as of June 30, 2006 and subtracting total debt as of June 30, 2006, whereupon the net present value of TorreyPines' NOLs were added to calculate the implied equity value of TorreyPines. Historical financial data for TorreyPines was provided by the management of TorreyPines and estimated financial data, including the value and availability of NOLs, for TorreyPines were provided by the TorreyPines forecasts. This analysis indicated the following implied equity value reference range, as compared to the implied equity value and adjusted implied equity value for TorreyPines:

Implied Equity Value for TorreyPines	Adjusted Implied Equity Value for TorreyPines	Implied Equity Value Reference Range
$ 70.9 million	$73.2 million	$67 to $105 million

Relative Financial Analysis

Net Income Contribution Analysis. Banc of America Securities performed a contribution analysis in order to evaluate the percentage contribution of each of Axonyx and TorreyPines to the combined company based on projected net income for each of Axonyx and TorreyPines for the years 2013 through 2015. Projected net income of Axonyx was provided by the Axonyx forecasts and projected net income of TorreyPines was provided by the TorreyPines forecasts. The resulting relative percentage contribution based on projected net income for each of Axonyx and TorreyPines is set forth below, as compared with the adjusted implied equity ownership of TorreyPines in the combined company resulting from the merger of 58.3% and 59.1% as adjusted by the net value of the warrants:

Year	Projected Net Income of Axonyx	Projected Net Income of TorreyPines	Axonyx Net Income Contribution to Combined Company	TorreyPines Net Income Contribution to Combined Company
2013P	$ 18.1	$ 41.0	30.7%	69.3%
2014P	31.9	71.5	30.9	69.1
2015P	36.9	101.9	26.6	73.4

Implied Ownership Analysis. Based on the implied valuations for each of Axonyx and TorreyPines derived in the analyses described above, Banc of America Securities calculated an implied equity ownership valuation range for TorreyPines in the combined company and compared it with the implied equity ownership of TorreyPines in the combined company resulting from the merger. The implied equity ownership percentage of TorreyPines in the combined company of 58.3% and 59.1%, as adjusted by the net value of the warrants, was compared with the TorreyPines implied equity ownership valuation range derived from the above analyses set forth below:

	TorreyPines Implied Equity Ownership Valuation Range
Selected Publicly Traded Companies Analysis	46.2%-59.4%
Discounted Forward P/E Multiple Analysis	
2013P Net Income	47.8-61.5
2014P Net Income	51.6-64.0
Discounted Cash Flow Analysis	45.2-60.9

Other Factors

In rendering its opinion, Banc of America Securities also reviewed and considered other factors, including:

- the historical trading prices and trading volumes of Axonyx common stock during the 12-month period ended June 6, 2006; and

- the effects of any possible adjustment to the exchange ratio should the TorreyPines preferred stock financing have been consummated in an amount less than $6,364,269, or not consummated at all.

Miscellaneous

As noted above, the discussion set forth above is merely a summary of the material financial analyses presented by Banc of America Securities to the board of directors of Axonyx in connection with its opinion and is not a comprehensive description of all analyses undertaken by Banc of America Securities in connection with its opinion. The preparation of a financial opinion is a complex analytical 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, a financial opinion is not readily susceptible to partial analysis or summary description. Banc of America Securities believes that its analyses and the summary above must be considered as a whole. Banc of America Securities further believes that selecting portions of its analyses and the factors considered or focusing on information presented in tabular format, without considering all analyses and factors or the narrative description of the analyses, could create a misleading or incomplete view of the processes underlying Banc of America Securities' analyses and opinion. Banc of America Securities did not assign any specific weight to any of the analyses described above. The fact that any specific analysis has been referred to in the summary above is not meant to indicate that such analysis was given greater weight than any other analysis.

In performing its analyses, Banc of America Securities considered industry performance, general business and economic conditions and other matters, many of which are beyond the control of Axonyx and TorreyPines. The estimates of the future performance of Axonyx provided by the management of Axonyx in or underlying Banc of America Securities' analyses, including, but not limited to, the Axonyx forecasts, and the estimates of the future performance of TorreyPines provided by the management of Axonyx, based on assumptions, data and guidance provided by the managements of TorreyPines and Axonyx, in or underlying Banc of America Securities' analyses, including, but not limited to, the TorreyPines forecasts, are not necessarily indicative of actual values or actual future results, which may be significantly more or less favorable than those estimates or those suggested by Banc of America Securities' analyses. These analyses were prepared solely as part of Banc of America Securities' analysis of the financial fairness of the consideration provided for in the merger and were provided to the board of directors of Axonyx in connection with the delivery of Banc of America Securities' opinion. The analyses do not purport to be appraisals or to reflect the prices at which a company might actually be sold or the prices at which any securities have traded or may trade at any time in the future. Accordingly, the estimates used in, and the ranges of valuations resulting from, any particular analysis described above are inherently subject to substantial uncertainty and should not be taken to be Banc of America Securities' view of the actual value of Axonyx or TorreyPines.

The consideration provided for in the merger was determined through negotiations between Axonyx and TorreyPines and was approved by the board of directors of Axonyx. The decision of Axonyx to enter into the merger agreement was solely that of the board of directors of Axonyx. As described above, Banc of America Securities' opinion and analyses were only one of many factors considered by the board of directors of Axonyx in making its determination to recommend the merger

agreement and should not be viewed as determinative of the views of the board of directors of Axonyx or Axonyx management with respect to the merger or the consideration to be paid therein.

Banc of America Securities has acted as financial advisor to the board of directors of Axonyx in connection with the merger, for which services Banc of America Securities will receive a fee of $1.5 million, contingent and payable upon and concurrently with the consummation of the merger. Axonyx also has agreed to reimburse Banc of America Securities for all reasonable expenses, including reasonable fees and disbursements of Banc of America Securities' counsel, incurred in connection with Banc of America Securities' engagement, and to indemnify Banc of America Securities, any controlling person of Banc of America Securities and each of their respective directors, officers, employees, agents, affiliates and representatives against specified liabilities, including liabilities under the federal securities laws.

Banc of America Securities has provided financial advisory services to Axonyx in connection with its adoption of a shareholders' rights plan and Banc of America Securities or its affiliates may in the future provide financial advisory and financing services to Axonyx, for which services Banc of America Securities has received and in the future would expect to receive, compensation. In the ordinary course of its businesses, Banc of America Securities and its affiliates may actively trade or hold the debt and equity securities or loans of Axonyx and TorreyPines for its own account or for the accounts of customers, and accordingly, Banc of America Securities or its affiliates may at any time hold long or short positions in such securities or loans.

Interests of Axonyx's Directors and Executive Officers in the Merger

In considering the recommendation of the Axonyx board of directors with respect to issuing shares of Axonyx common stock and the merger warrants as contemplated by the merger agreement and the other matters to be acted upon by Axonyx's stockholders at the Axonyx annual meeting, Axonyx's stockholders should be aware that certain members of the board of directors and executive officers of Axonyx have interests in the merger that may be different from, or in addition to, the interests of Axonyx's stockholders. These interests relate to or arise from, among other things:

- certain benefits to which Gosse B. Bruinsma, M.D. is entitled due to the non-renewal of his employment agreement in connection with the merger;

- severance benefits to which each of Gosse B. Bruinsma, M.D., S. Colin Neill and Paul Feuerman would become entitled in the event of his qualifying termination of employment within a specified period of time before or after the merger; and

- the accelerated vesting of stock options to purchase approximately 1,110,625 shares of Axonyx common stock held by Axonyx's executive officers and board members in connection with the consummation of the merger;

- the possibility the certain Axonyx directors will continue to serve on the board of directors of the combined company following the consummation of the merger.

Each of Axonyx's and TorreyPines' board of directors was aware of these potential conflicts of interest and considered them, among other matters, in reaching their respective decisions to approve the merger agreement and the merger, and, in the case of each board, to recommend that their respective stockholders approve the Axonyx and TorreyPines proposals, as applicable, contemplated by this joint proxy statement/prospectus to be presented to their stockholders for consideration at their respective stockholder meetings.

Ownership Interests

As of August 23, 2006, all directors and executive officers of Axonyx, together with their affiliates, beneficially owned approximately 8.9% of the shares of Axonyx common stock. The affirmative vote of the holders of a majority of the Axonyx common stock having voting power present in person or represented by proxy at the Axonyx annual meeting is required for approval of Axonyx Proposal Nos. 1, 5 and 7. The affirmative vote of holders of a majority of the Axonyx common stock having voting power outstanding on the record date for the Axonyx annual meeting is required for approval of Axonyx Proposal Nos. 2, 3 and 4. Certain Axonyx officers and directors, and their affiliates, have also entered into voting agreements in connection with the merger. For a more detailed discussion of the voting agreements see the section entitled "Agreements Related to the Merger Voting Agreements" in this joint proxy statement/prospectus.

Employment Agreement of Gosse B. Bruinsma, M.D.

Shortly following the execution of the merger agreement and in anticipation of the merger, Axonyx elected not to renew the employment agreement of Gosse B. Bruinsma, M.D., its President and Chief Executive Officer. Consequently, pursuant to the terms of his amended employment agreement, Dr. Bruinsma is entitled to receive certain benefits, regardless of whether or not the merger occurs. Specifically, the employment agreement provides that Dr. Bruinsma is entitled to receive continued salary and benefits with undiminished terms and conditions for six months following the expiration of his employment agreement, or through March 21, 2007.

Change of Control Agreements

In March 2004, Axonyx entered into change of control agreements with Gosse B. Bruinsma, M.D., its President and Chief Executive Officer, and S. Colin Neill, its Chief Financial Officer. In September 2005, Axonyx entered into a change of control agreement with Paul Feuerman, its General Counsel. Under these agreements, as amended, each executive will be entitled to certain severance benefits if his employment is terminated under either of the following circumstances:

- the executive's employment is terminated by Axonyx without cause (as described below) at any time during the period from 90 days prior to the commencement or public announcement of a change of control, such as the merger, until one year after a change of control; or

- the executive's employment is terminated by the executive for good reason (as described below) at any time during the one-year period immediately following the occurrence of a change of control.

For purposes of these agreements, "cause" is generally defined to mean: (a) the executive's willful failure to perform the duties of his employment (other than as a result of the executive's incapacity due to physical or mental illness) for at least 10 days after a demand for substantial performance, (b) the executive's engaging in negligent or willful misconduct in carrying out the duties of his or her employment or conduct injurious to Axonyx or any of its affiliates, (c) the executive's conviction of, or entering a plea of guilty, nolo contendere (or similar plea) to a crime that constitutes a felony or any crime of moral turpitude, (d) the executive's directly or indirectly selling, passing on or otherwise using or disclosing without permission any confidential information of Axonyx; or (e) the executive's direct or indirect participation in business activities in competition with Axonyx.

For purposes of these agreements, "good reason" is generally defined to mean: (a) a material diminution in the nature of the executive's authority, duties, responsibilities or status, from those in effect immediately prior to the change of control, (b) the required relocation of the executive's place of employment to a location in excess of thirty miles from his or her place of employment at the time of his termination, or (c) any substantial reduction by Axonyx in the executive's base salary, bonus

opportunities, profit sharing opportunities, or other incentive opportunities from those in effect immediately prior to the change of control.

In the event of an executive's qualifying termination of employment, the executive will be entitled to receive the following:

- a lump sum cash payment equal to the sum of (a) 200% of the executive's highest annual base salary in effect during the one year period immediately preceding his resignation or termination, plus (b) 40% of the executive's base salary at the time of termination or resignation in the case of Dr. Bruinsma and 30% of the executive's base salary at the time of termination or resignation in the case of Messrs. Neill and Feuerman;

- the right to continue participation for a one-year period in any group health plan sponsored by Axonyx in which the executive was participating on the date of his termination or resignation, at a cost to the executive equal to the amount charged by Axonyx to its then-current employees; and

- the immediate accelerated vesting of all unvested options held by the executive and the lapse of all post-termination exercise period restrictions applicable to the executive's outstanding options, such that all of the executive's options shall become fully vested and shall remain outstanding and exercisable until their respective expiration dates.

Stockholder approval of the merger will constitute a "change of control" for purposes of these agreements. Set forth below is an estimate of the value of the severance benefits that would become payable to Dr. Bruinsma and Messrs. Neill and Feuerman under the change of control agreements, assuming a qualifying termination of each individual's employment as of August 23, 2006 and excluding the value of any accelerated vesting of stock options or lapsing of any post-termination stock option exercise restrictions. The amount shown for Dr. Bruinsma also includes an estimate of the benefits to which he is entitled under his employment agreement as described above. The amounts shown below are in addition to the values shown in the next table regarding the accelerated vesting of stock options.

Name of Executive Officer	Estimated Value of Severance Benefits
Gosse B. Bruinsma, M.D.	$1,317,500
S. Colin Neill	$619,570
Paul Feuerman	$696,185

(1) Dr. Bruinsma resides in the Netherlands and operates from the Axonyx Europe BV offices in Leiden, The Netherlands and is therefore compensated in the local currency, i.e. Euro. The amount reflected in the table above was calculated using a USD/Euro exchange rate of 1.2801, which was the USD/Euro exchange rate reported for August 23, 2006 in *The Wall Street Journal*.

Stock Options

Each of Axonyx's executive officers and non-employee directors holds options to purchase shares of Axonyx common stock. The options were granted under Axonyx's equity participation plans pursuant to a stock option agreement. Each option grant typically vests in a series of annual installments over a number of years. However, the option agreements provide that each option will vest and become exercisable as to all shares covered by such option upon the consummation of a merger involving Axonyx, subject to certain exceptions that would not apply to the contemplated merger. As a result, all of the outstanding options held by Axonyx's executive officers and non-employee directors will immediately vest and become exercisable in full upon consummation of the merger.

The following table shows the total number of option shares held as of August 23, 2006 by each director and executive officer. The options have exercise prices ranging between $0.825 and $11.50 per

share. Based on the difference between $0.87 (the closing price of a share of Axonyx common stock as quoted on The NASDAQ Capital Market on August 22, 2006) and the actual exercise price of each individual's unvested options, none of the unvested options held by Axonyx's executive officers and non-employee directors has any intrinsic value.

Name	Total Options Held	Vested	Unvested	Weighted Average Exercise Price Per Share
Executive Officers:				
Gosse B. Bruinsma, M.D.(2)	1,047,000	730,500	316,500	$ 3.67
S. Colin Neill	366,400	209,100	157,300	$ 3.39
Paul Feuerman	206,400	51,600	154,800	$ 1.16
Directors(1):				
Marvin S. Hausman, M.D.	941,500	793,750	147,750	$ 5.43
Steven B. Ratoff	293,307	146,032	147,275	$ 1.13
Louis G. Cornacchia	216,500	162,500	54,000	$ 2.74
Steven H. Ferris, Ph.D.	205,500	151,500	54,000	$ 3.32
Ralph Snyderman, M.D. (2)	223,412	144,412	79,000	$ 4.64

(1) Gosse B. Bruinsma, M.D., the President and Chief Executive Officer of Axonyx, is also a director of Axonyx.

(2) Such director will not serve on the board of directors of the combined company following the merger.

Combined Company's Board of Directors After the Merger

The merger agreement provides that, following the merger, the combined company will initially have a ten member board of directors, including four individuals from Axonyx's current board of directors, Louis G. Cornacchia, Marvin S. Hausman, M.D., Steven H. Ferris, Ph.D. and Steven B. Ratoff.

Indemnification of Axonyx's Officers and Directors

The merger agreement provides that, for a period of six years following the effective time of the merger, the combined company will, to the fullest extent permitted by Delaware law, indemnify and hold harmless all present and former directors and officers of Axonyx against all claims, losses, liabilities, damages, judgments, fines and reasonable fees, costs and expenses, including attorneys' fees and disbursements, incurred in connection with any claim, action, suit, proceeding or investigation, whether civil, criminal, administrative or investigative, arising out of or pertaining to the fact that such person is or was a director or officer of Axonyx. In addition, for a period of six years following the effective time of the merger, the certificate of incorporation and bylaws of the combined company and surviving company will contain provisions no less favorable with respect to indemnification of present and former directors and officers of Axonyx than are presently set forth in the certificate of incorporation and bylaws of Axonyx.

The merger agreement also provides that, for a period of six years following the consummation of the merger, the combined company will maintain in effect a directors' and officers' liability insurance policy covering the directors and officers of Axonyx, with coverage in amount and scope at least as favorable as the coverage under Axonyx's existing policy as of the time the merger becomes effective. If the annual premiums payable for such insurance coverage exceed 200% of the current annual

premiums paid by Axonyx for its existing policy, the combined company may reduce the amount of coverage to the amount of coverage available for a cost equal to that amount.

Interests of TorreyPines' Directors and Executive Officers in the Merger

In considering the recommendation of the TorreyPines board of directors with respect to adopting the merger agreement, TorreyPines' stockholders should be aware that certain members of the board of directors and executive officers of TorreyPines have interests in the merger that may be different from, or in addition to, interests they may have as TorreyPines' stockholders. Each of Axonyx's and TorreyPines' board of directors was aware of these potential conflicts of interest and considered them, among other matters, in reaching their respective decisions to approve the merger agreement and the merger, and, in the case of each board of directors, to recommend that their respective stockholders approve the Axonyx and TorreyPines proposals, as applicable, contemplated by this joint proxy statement/prospectus to be presented to their stockholders for consideration at their respective stockholder meetings.

Ownership Interests

As of August 23, 2006, all directors and executive officers of TorreyPines, together with their affiliates, beneficially owned (including through ownership of warrants) approximately 79% of the shares of TorreyPines capital stock. TorreyPines cannot complete the merger unless the merger agreement is adopted by the affirmative vote of (a) the holders of a majority of the shares of TorreyPines common stock and TorreyPines preferred stock outstanding on the record date and entitled to vote at the TorreyPines special meeting, voting as a single class and on an as-converted basis, and (b) the holders of two-thirds of the shares of TorreyPines preferred stock outstanding on the record date and entitled to vote at the TorreyPines special meeting, voting as a single class and on an as-converted basis. Certain TorreyPines officers and directors, and their affiliates, have also entered into voting agreements in connection with the merger. For a more detailed discussion of the voting agreements see the section entitled "Agreements Related to the Merger Voting Agreements" in this joint proxy statement/prospectus.

Stock Options

At the effective time of the merger, each outstanding stock option to purchase TorreyPines common stock not exercised prior to the merger will be assumed by Axonyx and become exercisable (a) for such number of shares of Axonyx common stock as is determined by multiplying the number of shares of TorreyPines common stock subject to the option by the exchange ratio and rounding that result down to the nearest whole number of shares of Axonyx common stock, and (b) at a per share exercise price as is determined by dividing the existing exercise price of the option by the exchange ratio and rounding that result up to the nearest whole cent.

The table below sets forth, as of August 23, 2006, information with respect to options held by each of TorreyPines' current executive officers and directors.

Name	Total Options Held	Vested	Unvested	Weighted Average Exercise Price Per Share
Executive Officers:				
Neil M. Kurtz, M.D.	1,371,560	1,161,872	209,688	$ 0.16
Evelyn Graham	450,000	190,625	259,375	$ 0.20
Craig Johnson	450,000	190,625	259,375	$ 0.20
Michael Murphy, M.D., Ph.D.	450,000	257,291	192,709	$ 0.20
Steven Wagner, Ph.D.	50,000	15,625	34,375	$ 0.20
Directors(1):				
William T. Comer, Ph.D.	50,000	50,000	0	$ 0.15
Roy Cosan(2)				
Peter Davis, Ph.D.	10,000		10,000	$ 0.20
Jean Deleage, Ph.D.				
Jason S. Fisherman, M.D.				
Rudolph E. Tanzi, Ph.D.(2)	200,000	50,000	150,000	$ 0.22
Patrick Van Beneden				

(1) Neil M. Kurtz, M.D., the chief executive officer of TorreyPines, is also a director of TorreyPines.

(2) Such director will not serve on the board of directors of the combined company following the merger.

Combined Company's Board of Directors After the Merger

The merger agreement provides that, following the merger, the combined company will initially have a ten member board of directors, including six individuals from TorreyPines' current board of directors, Neil M. Kurtz, M.D., William T. Comer, Ph.D., Peter Davis, Ph.D., Jean Deleage, Ph.D., Jason Fisherman, M.D. and Patrick Van Beneden.

Indemnification of TorreyPines' Officers and Directors

The merger agreement provides that, for a period of six years following the effective time of the merger, the combined company will, to the fullest extent permitted by Delaware law, indemnify and hold harmless all present and former directors and officers of TorreyPines against all claims, losses, liabilities, damages, judgments, fines and reasonable fees, costs and expenses, including attorneys' fees and disbursements, incurred in connection with any claim, action, suit, proceeding or investigation, whether civil, criminal, administrative or investigative, arising out of or pertaining to the fact that such person is or was a director or officer of TorreyPines. In addition, for a period of six years following the effective time of the merger, the certificate of incorporation and bylaws of the combined company and surviving company will contain provisions no less favorable with respect to indemnification of present and former directors and officers of TorreyPines than are presently set forth in the certificate of incorporation and bylaws of TorreyPines.

The merger agreement also provides that, for a period of six years following the consummation of the merger, the combined company will maintain in effect a directors' and officers' liability insurance policy covering the directors and officers of TorreyPines, with coverage in amount and scope at least as favorable as the coverage under TorreyPines' existing policy as of the time the merger becomes effective. If the annual premiums payable for such insurance coverage exceed 200% of the current

annual premiums paid by TorreyPines for its existing policy, the combined company may reduce the amount of coverage to the amount of coverage available for a cost equal to that amount.

Stock Options and Warrants

TorreyPines has granted options to purchase shares of its common stock under its 2000 Equity Incentive Plan. Each outstanding option to purchase shares of TorreyPines common stock that is not exercised prior to the effective time of the merger will be assumed by Axonyx at the effective time of the merger in accordance with the terms of the 2000 Equity Incentive Plan and the terms of the related stock option agreement and will become an option to purchase shares of Axonyx common stock. The number of shares of Axonyx common stock subject to each assumed option will be determined by multiplying the number of shares of TorreyPines common stock that was subject to each option prior to the effective time of the merger by the exchange ratio and rounding that result down to the nearest whole number of shares of Axonyx common stock. The per share exercise price for the assumed options will be determined by dividing the per share exercise price of the TorreyPines common stock subject to each option as in effect immediately prior to the effective time of the merger by the exchange ratio and rounding that result up to the nearest whole cent.

TorreyPines has issued warrants to purchase shares of its Series A preferred stock, Series B preferred stock, Series C-2 preferred stock and common stock. Each outstanding warrant to purchase shares of TorreyPines Series A preferred stock, Series B preferred stock, Series C-2 preferred stock and common stock not terminated or exercised at or prior to the merger will be assumed by Axonyx at the effective time of the merger in accordance with its terms and will become a warrant to purchase shares of Axonyx common stock. The number of shares of Axonyx common stock subject to each assumed warrant will be determined by multiplying the number of shares of TorreyPines common stock, or the number of shares of TorreyPines common stock issuable upon conversion of the shares of TorreyPines preferred stock issuable upon exercise of such warrant, as applicable, that were subject to such warrant prior to the effective time of the merger by the exchange ratio and rounding that result down to the nearest whole number of shares of Axonyx common stock. The per share exercise price for the assumed warrants will be determined by dividing the per share exercise price of the TorreyPines preferred stock or common stock subject to each warrant as in effect immediately prior to the effective time of the merger by the exchange ratio and rounding that result up to the nearest whole cent.

For a more detailed discussion of the exchange ratio and possible adjustments to the exchange ratio to reflect certain events that could occur prior to closing, see the section entitled "The Merger Agreement Merger Consideration and Adjustment" in this joint proxy statement/prospectus. If there is no adjustment to the exchange ratio to reflect certain events that could occur prior to closing, the exchange ratio will be 1.299, subject to adjustment to account for the reverse stock split to be implemented prior to the consummation of the merger, and in such case, subject to further adjustment to account for the reverse stock split:

- the options to purchase 5,565,227 shares of TorreyPines common stock that were outstanding as of June 7, 2006 would, if not earlier terminated or exercised, become options to purchase an aggregate of 7,229,229 shares of Axonyx common stock at the effective time of the merger. Such options which were exercisable at prices per share ranging from $0.10 to $0.24 as of June 7, 2006, would become exercisable at prices per share ranging from $0.07 to $0.18 at the effective time of the merger.

- the warrants to purchase an aggregate of 76,924 shares of TorreyPines Series A preferred stock that were outstanding as of June 7, 2006 would, if not earlier terminated or exercised, become warrants to purchase an aggregate of 99,924 shares of Axonyx common stock at the effective time of the merger. Such Series A preferred stock warrants, which were exercisable at a price per share of $0.91 as of June 7, 2006, would become exercisable at a price per share of $0.70.

the warrants to purchase an aggregate of 80,000 shares of TorreyPines Series B preferred stock that were outstanding as of June 7, 2006 would, if not earlier terminated or exercised, become warrants to purchase an aggregate of 103,920 shares of Axonyx common stock at the effective time of the merger. Such Series B preferred stock warrants, which were exercisable at a price per share of $1.50 as of June 7, 2006, would become exercisable at a price per share of $1.15.

the warrants to purchase an aggregate of 366,664 shares of TorreyPines Series C-2 preferred stock that were outstanding as of June 7, 2006 would, if not earlier terminated or exercised, become warrants to purchase an aggregate of 476,296 shares of Axonyx common stock at the effective time of the merger. Such Series C-2 preferred stock warrants, which were exercisable at a price per share of $1.50 as of June 7, 2006, would become exercisable at a price per share of $1.15.

the warrants to purchase an aggregate of 885,706 shares of TorreyPines common stock that were outstanding as of June 7, 2006 would, if not earlier terminated or exercised, become warrants to purchase an aggregate of 1,150,532 shares of Axonyx common stock at the effective time of the merger. Such common stock warrants, which were exercisable at a price per share of $0.01 as of June 7, 2006, would become exercisable at a price per share of $0.01.

Form of the Merger

The merger agreement provides that at the effective time, merger sub will be merged with and into TorreyPines. Upon the consummation of the merger, TorreyPines will continue as the surviving corporation and will be a wholly owned subsidiary of Axonyx.

After completion of the merger, assuming Axonyx Proposal No. 3 is approved by Axonyx's stockholders at the Axonyx annual meeting, Axonyx will be renamed "TorreyPines Therapeutics, Inc." and expects to trade on the NASDAQ Global Market under the symbol "TPTX".

Merger Consideration and Adjustment

At the effective time of the merger,

each share of TorreyPines common stock and preferred stock outstanding immediately prior to the effective time of the merger will automatically be converted into the right to receive 1.299 shares of Axonyx common stock, subject to adjustment to account for the reverse stock split, which is referred to as the exchange ratio;

each share of TorreyPines preferred stock outstanding immediately prior to the effective time of the merger will also automatically be converted into the right to receive a merger warrant to acquire a number of shares of Axonyx common stock determined by dividing a total of 12,000,000 shares of Axonyx common stock, subject to adjustment to account for the reverse stock split, by the total number of outstanding shares of TorreyPines preferred stock;

each option to purchase shares of TorreyPines common stock outstanding and unexercised immediately prior to the effective time of the merger will be assumed by Axonyx and will become an option to purchase shares of Axonyx common stock; and

each warrant to purchase shares of TorreyPines preferred stock or common stock outstanding and not terminated or exercised immediately prior to the effective time of the merger will be assumed by Axonyx and will become a warrant to purchase shares of Axonyx common stock.

Immediately after the merger, based on the exchange ratio, which is subject to adjustments to reflect certain events that could occur prior to closing of the merger as described below, TorreyPines securityholders will own approximately 58% of the fully-diluted shares of the combined company (excluding the merger warrants) with Axonyx securityholders holding approximately 42% of the fully-

diluted shares of the combined company, in each case calculated using the treasury stock method. If the merger warrants were exercised as of the closing of the merger, when combined with the shares of Axonyx common stock issued in the merger, TorreyPines securityholders would own approximately 62% of the fully-diluted shares of the combined company, with Axonyx securityholders holding approximately 38% of the fully-diluted shares of the combined company, in each case calculated using the treasury stock method. These percentages assume:

- a reference price of $0.942 per share of Axonyx common stock for treasury stock method calculation purposes, calculated based on the average closing price per share of Axonyx common stock for the five trading days ending June 5, 2006;

- that the number of shares subject to TorreyPines options and warrants does not change between the date of this joint proxy statement/prospectus and the closing of the merger; and

- that the exchange ratio is not adjusted, as described below.

The merger agreement does not include a price-based termination right, so there will be no adjustment to the total number of shares of Axonyx common stock that TorreyPines securityholders will be entitled to receive for changes in the market price of Axonyx common stock. Accordingly, the market value of the shares of Axonyx common stock issued pursuant to the merger will depend on the market value of the shares of Axonyx common stock at the time the merger closes, and could vary significantly from the market value on the date of this joint proxy statement/prospectus.

The exchange ratio of 1.299 is subject to adjustment to account for the effect of the reverse stock split and is also subject to adjustment upon the occurrence of certain events, as follows:

- if Axonyx completes an Axonyx permitted out-license prior to the date that is five business days before the date of the Axonyx annual meeting of stockholders, then the exchange ratio will be adjusted in accordance with a formula set forth in the merger agreement to reflect the addition to Axonyx's valuation of 75% of the cash paid to Axonyx at or prior to the closing of the Axonyx permitted out-license, which will have the effect of increasing the percentage of the combined company owned by Axonyx's securityholders and reducing the percentage of the combined company owned by TorreyPines' securityholders. In addition, if Axonyx completes an Axonyx permitted out-license, TorreyPines may elect to terminate the merger agreement and require Axonyx to reimburse it for its expenses, up to a maximum of $1 million; and

- if TorreyPines completes a TorreyPines permitted out-license prior to the date that is five business days before the date of the Axonyx annual meeting of stockholders, then the exchange ratio will be adjusted in accordance with a formula set forth in the merger agreement to reflect the addition to TorreyPines' valuation of 75% of the cash paid to TorreyPines at or prior to the closing of the TorreyPines permitted out-license, which will have the effect of increasing the percentage of the combined company owned by TorreyPines' securityholders and reducing the percentage of the combined company owned by Axonyx's securityholders. In addition, if TorreyPines completes a TorreyPines permitted out-license, Axonyx may elect to terminate the merger agreement and require TorreyPines to reimburse it for its expenses, up to a maximum of $1 million.

No fractional shares of Axonyx common stock will be issuable pursuant to the merger to TorreyPines stockholders. Instead, each TorreyPines stockholder who would otherwise be entitled to receive a fraction of a share of Axonyx common stock, after aggregating all fractional shares of Axonyx common stock issuable to such stockholder, will be entitled to receive in cash the dollar amount, rounded to the nearest whole cent, without interest, determined by multiplying such fraction by the closing price of a share of Axonyx common stock as quoted on the NASDAQ Capital Market, on the date the merger becomes effective.

The merger agreement provides that, at the effective time of the merger, Axonyx will deposit with an exchange agent acceptable to Axonyx and TorreyPines stock certificates representing the shares of Axonyx common stock issuable to the TorreyPines stockholders, the merger warrants issuable to the holders of TorreyPines preferred stock and a sufficient amount of cash to make payments in lieu of fractional shares.

The merger agreement provides that, promptly after the effective time of the merger, the exchange agent will mail to each record holder of TorreyPines common stock and TorreyPines preferred stock immediately prior to the effective time of the merger a letter of transmittal and instructions for surrendering and exchanging the record holder's TorreyPines stock certificates for shares of Axonyx common stock and, in the case of holders of TorreyPines preferred stock, the merger warrants. Upon surrender of a TorreyPines common stock certificate or a TorreyPines preferred stock certificate for exchange to the exchange agent, together with a duly signed letter of transmittal and such other documents as the exchange agent or Axonyx may reasonably require, the TorreyPines stock certificate surrendered will be cancelled and the holder of the TorreyPines stock certificate will be entitled to receive the following:

a certificate representing the number of whole shares of Axonyx common stock that such holder has the right to receive pursuant to the provisions of the merger agreement;

cash in lieu of any fractional share of Axonyx common stock;

in the case of holders of TorreyPines preferred stock, a merger warrant; and

dividends or other distributions, if any, declared or made with respect to Axonyx common stock with a record date after the effective time of the merger.

At the effective time of the merger, all holders of certificates representing shares of TorreyPines common stock or TorreyPines preferred stock that were outstanding immediately prior to the effective time of the merger will cease to have any rights as stockholders of TorreyPines. In addition, no transfer of TorreyPines common stock or TorreyPines preferred stock after the effective time of the merger will be registered on the stock transfer books of TorreyPines.

If any TorreyPines stock certificate has been lost, stolen or destroyed, Axonyx may, in its discretion, and as a condition to the delivery of any shares of Axonyx common stock, require the owner of such lost, stolen or destroyed certificate to deliver an affidavit claiming such certificate has been lost, stolen or destroyed and post a bond indemnifying Axonyx against any claim suffered by Axonyx related to the lost, stolen or destroyed certificate or any Axonyx common stock issued in exchange for such certificate as Axonyx may reasonably request.

From and after the effective time of the merger, until it is surrendered, each certificate that previously evidenced TorreyPines common stock or TorreyPines preferred stock will be deemed to represent only the right to receive shares of Axonyx common stock, cash in lieu of any fractional share of Axonyx common stock and, in the case of holders of TorreyPines preferred stock, a merger warrant. Axonyx will not pay dividends or other distributions on any shares of Axonyx common stock to be issued in exchange for any unsurrendered TorreyPines stock certificate until the TorreyPines stock certificate is surrendered as provided in the merger agreement.

Effective Time of the Merger

The merger agreement requires the parties to consummate the merger after all of the conditions to the consummation of the merger contained in the merger agreement are satisfied or waived, including the adoption of the merger agreement by the stockholders of TorreyPines and the approval by the Axonyx stockholders of the issuance of Axonyx common stock and the merger warrants and the resulting change in control of Axonyx, the amendment to Axonyx's articles of incorporation effecting

the reverse stock split and the name change from "Axonyx Inc." to "TorreyPines Therapeutics, Inc." and the change of Axonyx's state of incorporation from Nevada to Delaware. The merger will become effective upon the filing of a certificate of merger with the Secretary of State of the State of Delaware or at such later time as is agreed by Axonyx and TorreyPines and specified in the certificate of merger. Neither Axonyx nor TorreyPines can predict the exact timing of the consummation of the merger.

Regulatory Approvals

As of the date of this joint proxy statement/prospectus, neither Axonyx nor TorreyPines is required to make filings or to obtain approvals or clearances from any antitrust regulatory authorities in the United States or other countries to consummate the merger. In the United States, Axonyx must comply with applicable federal and state securities laws and the rules and regulations of the NASDAQ Capital Market in connection with the issuance of shares of Axonyx common stock and the merger warrants and the resulting change in control of Axonyx and the filing of this joint proxy statement/prospectus with the SEC.

Tax Treatment of the Merger

TorreyPines and Axonyx intend the merger to qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended, or the Code. Each of TorreyPines and Axonyx will use its reasonable best efforts to cause the merger to qualify as a reorganization within the meaning of Section 368(a) of the Code, and not to, and not to permit or cause any affiliate or any subsidiary of TorreyPines or Axonyx to, take any action or cause any action to be taken which would cause the merger to fail to qualify as a reorganization under Section 368(a) of the Code. For a description of the material United States federal tax considerations of the merger, see the section entitled "Material United States Federal Income Tax Consequences of the Merger" below. TorreyPines and Axonyx will cooperate and use their reasonable best efforts in order for TorreyPines to obtain from Cooley Godward LLP, and Axonyx to obtain from Latham & Watkins LLP, an opinion that the merger will qualify as a reorganization within the meaning of Section 368(a) of the Code.

Material United States Federal Income Tax Consequences of the Merger

The following discussion summarizes the material United States federal income tax consequences of the merger that are expected to apply generally to TorreyPines stockholders upon an exchange of their TorreyPines common stock for Axonyx common stock and of their TorreyPines preferred stock for Axonyx common stock and the merger warrants. This summary is based upon current provisions of the Code, existing Treasury Regulations and current administrative rulings and court decisions, all of which are subject to change and to differing interpretations, possibly with retroactive effect.

This summary only applies to a TorreyPines stockholder that is a "U.S. person," defined to include:

a citizen or resident of the United States;

a corporation created or organized in or under the laws of the United States, or any political subdivision thereof (including the District of Columbia);

an estate the income of which is subject to United States federal income taxation regardless of its source;

a trust if either:

a court within the United States is able to exercise primary supervision over the administration of such trust and one or more United States persons have the authority to control all substantial decisions of such trust, or

the trust has a valid election in effect to be treated as a United States person for United States federal income tax purposes; and

any other person or entity that is treated for United States federal income tax purposes as if it were one of the foregoing.

Any TorreyPines stockholder other than a "U.S. person" as so defined is, for purposes of this discussion, a "non-U.S. person." If a partnership holds TorreyPines common or preferred stock, the tax treatment of a partner will generally depend on the status of the partner and the activities of the partnership. If you are a partner of a partnership holding TorreyPines common or preferred stock, you should consult your tax advisor.

This summary assumes that TorreyPines stockholders hold their shares of TorreyPines common or preferred stock as capital assets within the meaning of Section 1221 of the Code (generally, property held for investment). No attempt has been made to comment on all United States federal income tax consequences of the merger that may be relevant to particular holders, including holders:

who are subject to special treatment under United States federal income tax rules such as dealers in securities, financial institutions, non-U.S. persons, mutual funds, regulated investment companies, real estate investment trusts, insurance companies, or tax-exempt entities;

who are subject to the alternative minimum tax provisions of the Code;

who acquired their shares in connection with stock option or stock purchase plans or in other compensatory transactions;

who hold their shares as qualified small business stock within the meaning of Section 1202 of the Code; or

who hold their shares as part of an integrated investment such as a hedge or as part of a hedging, straddle or other risk reduction strategy.

In addition, the following discussion does not address the tax consequences of the merger under state, local and foreign tax laws. Furthermore, the following discussion does not address any of the:

tax consequences of transactions effectuated before, after or at the same time as the merger, whether or not they are in connection with the merger, including, without limitation, transactions in which TorreyPines common or preferred stock is acquired, warrants to purchase shares of Axonyx common stock are exercised, or Axonyx common stock or warrants to purchase shares of Axonyx common stock are disposed of;

tax consequences of the receipt of Axonyx common stock and/or warrants to purchase shares of Axonyx common stock other than in exchange for TorreyPines common or preferred stock; or

tax implications of a failure of the merger to qualify as a reorganization.

Accordingly, holders of TorreyPines common and preferred stock are advised and expected to consult their own tax advisers regarding the federal income tax consequences of the merger in light of their personal circumstances and the consequences of the merger under state, local and foreign tax laws.

Completion of the merger is conditioned upon, among other things, the receipt by TorreyPines of an opinion of Cooley Godward LLP and the receipt by Axonyx of an opinion of Latham & Watkins LLP, dated as of the closing date of the merger, to the effect that the merger will be treated for U.S. federal income tax purposes as a reorganization within the meaning of Section 368(a) of the Code. Neither TorreyPines nor Axonyx may waive such respective tax opinion closing condition to the merger after the TorreyPines stockholders and the Axonyx stockholders have approved the merger unless further approval is obtained from the TorreyPines stockholders and the Axonyx stockholders with

appropriate disclosure. In rendering their opinions, counsel will assume (i) that the statements and facts concerning the merger set forth in this joint proxy statement/prospectus and in the merger agreement, including representations contained in the representation letters of TorreyPines and Axonyx, are true and accurate in all respects, (ii) that the merger will be completed in accordance with this joint proxy statement/prospectus and the merger agreement, and (iii) certain customary factual assumptions. In addition, the tax opinions will be based on the law in effect on the date of the opinions and on representations made in the representation letters of TorreyPines and Axonyx substantially in the forms attached to the merger agreement as exhibits, all of which must continue to be true and accurate in all respects as of the effective time of the merger. If any of these assumptions or representations is inaccurate, the tax consequences of the merger could differ from those described in this joint proxy statement/prospectus. Neither TorreyPines nor Axonyx is currently aware of any facts or circumstances that would cause any representations made by it to Cooley Godward LLP and Latham & Watkins LLP in connection with these opinions to be untrue or incorrect in any material respect.

No ruling from the Internal Revenue Service, or IRS, has been or will be requested in connection with the merger. In addition, stockholders of TorreyPines should be aware that the tax opinions discussed in this section are not binding on the IRS, and the IRS could adopt a contrary position and a contrary position could be sustained by a court.

Assuming that the merger will be treated for United States federal income tax purposes as a reorganization within the meaning of Section 368(a) of the Code and subject to the qualifications and assumptions described in this joint proxy statement/prospectus:

- stockholders of TorreyPines will not recognize any gain or loss upon the receipt of solely Axonyx common stock for their TorreyPines common stock or upon the receipt of solely Axonyx common stock and warrants to purchase shares of Axonyx common stock for their TorreyPines preferred stock, other than with respect to cash received in lieu of fractional shares of Axonyx common stock;

- the aggregate tax basis of the shares of Axonyx common stock, or in the case of a holder of TorreyPines preferred stock, shares of Axonyx common stock and warrants to purchase shares of Axonyx common stock, received by a TorreyPines stockholder in the merger will be equal to the aggregate tax basis of the shares of TorreyPines common and preferred stock surrendered in exchange therefor, decreased by the amount of any tax basis allocable to any fractional share interest in Axonyx common stock for which cash is received. For a holder of TorreyPines preferred stock, such basis will be allocated between the shares of Axonyx common stock and the warrants to purchase shares of Axonyx common stock received therefor in proportion to the relative fair market values of the stock and warrants received.

- the holding period of the shares of Axonyx common stock, or in the case of a holder of TorreyPines preferred stock, shares of Axonyx common stock and warrants to purchase Axonyx common stock, received by a TorreyPines stockholder in the merger will include the holding period of the shares of TorreyPines common and preferred stock surrendered in exchange therefor;

- generally, cash payments received by TorreyPines stockholders in lieu of fractional shares will be treated as if such fractional shares of Axonyx common stock were issued in the merger and then sold. A stockholder of TorreyPines who receives such cash will recognize gain or loss equal to the difference, if any, between such stockholder's basis in the fractional share and the amount of cash received;

- a TorreyPines stockholder who properly perfects appraisal rights with respect to such stockholder's shares of TorreyPines common or preferred stock will be treated as if such stockholder had redeemed such stockholder's shares immediately prior to the merger. Such

redemption will be treated either as a distribution or as a sale or exchange under Section 302 of the Code. Generally, a stockholder who after the merger holds no TorreyPines or Axonyx shares will recognize capital gain or loss equal to the difference between such stockholder's tax basis in the shares of TorreyPines surrendered and the amount of cash received in exchange for such shares; and

in the case of capital gain or loss recognized in respect of a fractional share or in respect of the exercise of appraisal rights, such gain or loss will be capital gain or loss, and generally will constitute long-term capital gain or loss if the stockholder's holding period in the shares surrendered is more than one year as of the effective time of the merger. Net capital gain (*i.e.*, the excess of net long-term capital gain over net short-term capital loss) will be subject to tax at reduced rates for non-corporate stockholders who receive cash. The deductibility of capital losses is subject to various limitations for corporate and non-corporate holders.

For purposes of the above discussion of the bases and holding periods for shares of TorreyPines common or preferred stock and Axonyx common stock and warrants to purchase shares of Axonyx common stock, stockholders who acquired different blocks of TorreyPines common or preferred stock at different times for different prices must calculate their gains and losses and holding periods separately for each identifiable block of such stock exchanged in the merger or sold upon exercise of appraisal rights.

TorreyPines stockholders are required to attach a statement to their tax returns for the year in which the merger is consummated that contains the information listed in Treasury Regulation Section 1.368-3(b). Such statement must include the stockholder's tax basis in the stockholder's TorreyPines common or preferred stock and a description of the Axonyx common stock and warrants to purchase shares of Axonyx common stock, if any, received.

Certain non-corporate TorreyPines stockholders may be subject to backup withholding, at a rate of 28% for 2006, on cash received pursuant to the merger. Backup withholding will not apply; however, to a TorreyPines stockholder who (1) furnishes a correct taxpayer identification number and certifies that the TorreyPines stockholder is not subject to backup withholding on IRS Form W-9 or a substantially similar form, (2) provides a certification of foreign status on an appropriate Form W-8 or successor form or (3) is otherwise exempt from backup withholding. If a TorreyPines stockholder provides an incorrect taxpayer identification number on IRS Form W-9 or a substantially similar form, the TorreyPines stockholder may be subject to penalties imposed by the IRS. Amounts withheld, if any, are generally not an additional tax and may be refunded or credited against the TorreyPines stockholder's federal income tax liability, provided that the TorreyPines stockholder timely furnishes the required information to the IRS.

THE PRECEDING DISCUSSION IS INTENDED ONLY AS A SUMMARY OF CERTAIN UNITED STATES FEDERAL INCOME TAX CONSEQUENCES OF THE MERGER AND DOES NOT PURPORT TO BE A COMPLETE ANALYSIS OR DISCUSSION OF ALL OF THE MERGER'S POTENTIAL TAX EFFECTS. TORREYPINES STOCKHOLDERS ARE URGED TO CONSULT THEIR OWN TAX ADVISORS AS TO THE SPECIFIC TAX CONSEQUENCES TO THEM OF THE MERGER, INCLUDING TAX RETURN REPORTING REQUIREMENTS, AND THE APPLICABILITY AND EFFECT OF FEDERAL, STATE, LOCAL AND OTHER APPLICABLE TAX LAWS.

NASDAQ Stock Market Listing

Axonyx common stock currently is listed on the NASDAQ Capital Market under the symbol "AXYX". Axonyx has agreed to use its reasonable best efforts to maintain its existing listing on the NASDAQ Capital Market, to obtain approval for listing of the combined company on the NASDAQ Global Market or the NASDAQ Capital Market of the shares of Axonyx common stock and common

stock issuable upon exercise of the merger warrants that TorreyPines securityholders will be entitled to receive pursuant to the merger.

Prior to consummation of the merger, Axonyx intends to file an initial listing application with the NASDAQ Global Market pursuant to NASDAQ's "reverse merger" rules. If such application is accepted, Axonyx anticipates that its common stock will be listed on the NASDAQ Global Market following the closing of the merger under the trading symbol "TPTX".

Anticipated Accounting Treatment

The merger will be treated by Axonyx as a reverse merger under the purchase method of accounting in accordance with accounting principles generally accepted in the United States. For accounting purposes, TorreyPines is considered to be acquiring Axonyx in this transaction. Therefore, the aggregate consideration paid in connection with the merger, together with the direct costs of acquisition, will be allocated to Axonyx's tangible and intangible assets and liabilities based on their fair market values. The assets and liabilities and results of operations of Axonyx will be consolidated into the results of operations of TorreyPines as of the effective time of the merger. These allocations will be based upon a valuation that has not yet been finalized.

Appraisal Rights

If the merger is completed, TorreyPines stockholders are entitled to appraisal rights under Section 262 of the DGCL, or Section 262, provided that they comply with the conditions established by Section 262.

The discussion below is not a complete summary regarding a TorreyPines stockholder's appraisal rights under Delaware law and is qualified in its entirety by reference to the text of the relevant provisions of Delaware law, which are attached to this joint proxy statement/prospectus as *Annex C*. Stockholders intending to exercise appraisal rights should carefully review *Annex C*. Failure to follow precisely any of the statutory procedures set forth in *Annex C* may result in a termination or waiver of these rights.

A record holder of shares of TorreyPines capital stock who makes the demand described below with respect to such shares, who continuously is the record holder of such shares through the effective time of the merger, who otherwise complies with the statutory requirements of Section 262 and who neither votes in favor of the merger nor consents thereto in writing will be entitled to an appraisal by the Delaware Court of Chancery, or the Delaware Court, of the fair value of his, her or its shares of TorreyPines capital stock in lieu of the consideration that such stockholder would otherwise be entitled to receive pursuant to the merger agreement. All references in this summary of appraisal rights to a "stockholder" or "holders of shares of TorreyPines capital stock" are to the record holder or holders of shares of TorreyPines capital stock. Except as described herein, stockholders of TorreyPines will not be entitled to appraisal rights in connection with the merger.

Under Section 262, where a merger is to be submitted for approval at a meeting of stockholders, such as the TorreyPines special meeting, not fewer than 20 days prior to the meeting, a constituent corporation must notify each of the holders of its stock for whom appraisal rights are available that such appraisal rights are available and include in each such notice a copy of Section 262. This joint proxy statement/prospectus shall constitute such notice to the record holders of TorreyPines capital stock.

Stockholders who desire to exercise their appraisal rights must satisfy all of the conditions of Section 262. Those conditions include the following:

- Stockholders electing to exercise appraisal rights must not vote "for" the adoption of the merger agreement. Voting "for" the adoption of the merger agreement will result in the waiver of

appraisal rights. Also, because a submitted proxy not marked "against" or "abstain" will be voted "for" the proposal to adopt the merger agreement, the submission of a proxy not marked "against" or "abstain" will result in the waiver of appraisal rights.

A written demand for appraisal of shares must be filed with TorreyPines before the taking of the vote on the merger agreement at the special meeting. The written demand for appraisal should specify the stockholder's name and mailing address, and that the stockholder is thereby demanding appraisal of his or her TorreyPines capital stock. The written demand for appraisal of shares is in addition to and separate from a vote against the merger agreement or an abstention from such vote. That is, failure to return your proxy, voting against, or abstaining from voting on, the merger will not satisfy your obligation to make a written demand for appraisal.

A demand for appraisal must be executed by or for the stockholder of record, fully and correctly, as such stockholder's name appears on the stock certificate. If the shares are owned of record in a fiduciary capacity, such as by a trustee, guardian or custodian, this demand must be executed by or for the fiduciary. If the shares are owned by or for more than one person, as in a joint tenancy or tenancy in common, such demand must be executed by or for all joint owners. An authorized agent, including an agent for two or more joint owners, may execute the demand for appraisal for a stockholder of record. However, the agent must identify the record owner and expressly disclose the fact that, in exercising the demand, he is acting as agent for the record owner. A person having a beneficial interest in TorreyPines capital stock held of record in the name of another person, such as a broker or nominee, must act promptly to cause the record holder to follow the steps summarized below in a timely manner to perfect whatever appraisal rights the beneficial owners may have.

A stockholder who elects to exercise appraisal rights should mail or deliver his, her or its written demand to TorreyPines at 11085 North Torrey Pines Road, Suite 300, La Jolla, CA 92037, Attention: Craig Johnson.

Within 10 days after the effective time of the merger, TorreyPines must provide notice of the effective time of the merger to all TorreyPines stockholders who have complied with Section 262 and have not voted in favor of the adoption of the merger agreement.

Within 120 days after the effective time of the merger, either TorreyPines or any stockholder who has complied with the required conditions of Section 262 may file a petition in the Delaware Court, with a copy served on TorreyPines in the case of a petition filed by a stockholder, demanding a determination of the fair value of the shares of all stockholders seeking to exercise appraisal rights. There is no present intent on the part of TorreyPines to file an appraisal petition, and stockholders seeking to exercise appraisal rights should not assume that TorreyPines will file such a petition or that TorreyPines will initiate any negotiations with respect to the fair value of such shares. Accordingly, holders of TorreyPines capital stock who desire to have their shares appraised should initiate any petitions necessary for the perfection of their appraisal rights within the time periods and in the manner prescribed in Section 262.

Within 120 days after the effective time of the merger, any stockholder who has satisfied the requirements of Section 262 will be entitled, upon written request, to receive from TorreyPines a statement setting forth the aggregate number of shares of TorreyPines common stock and TorreyPines preferred stock not voting in favor of the adoption of the merger agreement and with respect to which demands for appraisal were received by TorreyPines and the aggregate number of holders of such shares. Such statement must be mailed within 10 days after the stockholder's request has been received by TorreyPines or within 10 days after the expiration of the period for the delivery of demands as described above, whichever is later.

If a petition for an appraisal is timely filed and a copy thereof is served upon TorreyPines, TorreyPines will then be obligated, within 20 days after service, to file in the office of the Register in Chancery a duly verified list containing the names and addresses of all stockholders who have demanded an appraisal of their shares and with whom agreements as to the value of their shares have not been reached. After notice to stockholders, as required by the Delaware Court, at the hearing on such petition, the Delaware Court will determine which stockholders are entitled to appraisal rights. The Delaware Court may require the stockholders who have demanded an appraisal for their shares and who hold stock represented by certificates to submit their certificates of stock to the Register in Chancery for notation thereon of the pendency of the appraisal proceedings; and if any stockholder fails to comply with such direction, the Delaware Court may dismiss the proceedings as to such stockholder. Where proceedings are not dismissed, the Delaware Court will appraise the shares of TorreyPines capital stock owned by such stockholders, determining the fair value of such shares exclusive of any element of value arising from the accomplishment or expectation of the merger, together with a fair rate of interest, if any, to be paid upon the amount determined to be the fair value.

Although the board of directors of TorreyPines believes that the merger consideration is fair, no representation is made as to the outcome of the appraisal of fair value as determined by the Delaware Court, and stockholders should recognize that such an appraisal could result in a determination of a value higher or lower than, or the same as, the consideration they would receive pursuant to the merger agreement. Moreover, TorreyPines does not anticipate offering more than the merger consideration to any stockholder exercising appraisal rights and reserves the right to assert, in any appraisal proceeding, that, for purposes of Section 262, the "fair value" of a share of TorreyPines capital stock is less than the merger consideration. In determining "fair value," the Delaware Court is required to take into account all relevant factors. The cost of the appraisal proceeding, which does not include attorneys' or experts' fees, may be determined by the Delaware Court and taxed against the dissenting stockholder and/or TorreyPines as the Delaware Court deems equitable under the circumstances. Each dissenting stockholder is responsible for his or her attorneys' and expert witness expenses, although, upon application of a dissenting stockholder, the Delaware Court may order that all or a portion of the expenses incurred by any dissenting stockholder in connection with the appraisal proceeding, including without limitation, reasonable attorneys' fees and the fees and expenses of experts, be charged pro rata against the value of all shares of stock entitled to appraisal.

Any stockholder who has duly demanded appraisal in compliance with Section 262 will not, after the effective time of the merger, be entitled to vote for any purpose any shares subject to such demand or to receive payment of dividends or other distributions on such shares, except for dividends or distributions payable to stockholders of record at a date prior to the effective time of the merger.

At any time within 60 days after the effective time of the merger, any stockholder will have the right to withdraw his, her or its demand for appraisal and to accept the terms offered in the merger agreement. After this period, a stockholder may withdraw his, her or its demand for appraisal and receive payment for his, her or its shares as provided in the merger agreement only with the consent of TorreyPines. If no petition for appraisal is filed with the court within 120 days after the effective time of the merger, stockholders' rights to appraisal, if available, will cease. Inasmuch as TorreyPines has no obligation to file such a petition, any stockholder who desires a petition to be filed is advised to file it on a timely basis. Any stockholder may withdraw such stockholder's demand for appraisal by delivering to TorreyPines a written withdrawal of his, her or its demand for appraisal and acceptance of the merger consideration, except (i) that any such attempt to withdraw made more than 60 days after the effective time of the merger will require written approval of TorreyPines and (ii) that no appraisal proceeding in the Delaware Court shall be dismissed as to any stockholder without the approval of the Delaware Court, and such approval may be conditioned upon such terms as the Delaware Court deems just.

Failure by any TorreyPines stockholder to comply fully with the procedures described above and set forth in *Annex C* to this joint proxy statement/prospectus may result in termination of such stockholder's appraisal rights. In view of the complexity of exercising appraisal rights under Delaware law, any TorreyPines stockholder considering exercising these rights should consult with legal counsel.

THE MERGER AGREEMENT

The following is a summary of the material terms of the merger agreement. A copy of the merger agreement is attached as Annex A to this joint proxy statement/prospectus and is incorporated by reference into this joint proxy statement/prospectus. The merger agreement has been attached to this joint proxy statement/prospectus to provide you with information regarding its terms. It is not intended to provide any other factual information about Axonyx, TorreyPines or merger sub. The following description does not purport to be complete and is qualified in its entirety by reference to the merger agreement. You should refer to the full text of the merger agreement for details of the merger and the terms and conditions of the merger agreement.

The merger agreement contains representations and warranties that Axonyx and merger sub, on the one hand, and TorreyPines, on the other hand, have made to one another as of specific dates. These representations and warranties have been made for the benefit of the other parties to the merger agreement and may be intended not as statements of fact but rather as a way of allocating the risk to one of the parties if those statements prove to be incorrect. In addition, the assertions embodied in the representations and warranties are qualified by information in confidential disclosure schedules exchanged by the parties in connection with signing the merger agreement. While Axonyx and TorreyPines do not believe that these disclosure schedules contain information required to be publicly disclosed under the applicable securities laws, other than information that has already been so disclosed, the disclosure schedules do contain information that modifies, qualifies and creates exceptions to the representations and warranties set forth in the attached merger agreement. Accordingly, you should not rely on the representations and warranties as current characterizations of factual information about Axonyx or TorreyPines, because they were made as of specific dates, may be intended merely as a risk allocation mechanism between Axonyx and merger sub and TorreyPines and are modified by the disclosure schedules.

General

Under the merger agreement, merger sub, a wholly owned subsidiary of Axonyx formed by Axonyx in connection with the merger, will merge with and into TorreyPines, with TorreyPines continuing as a wholly owned subsidiary of Axonyx.

Merger Consideration and Adjustment

At the effective time of the merger, each share of TorreyPines common stock and TorreyPines preferred stock will be converted into the right to receive 1.299 shares of Axonyx common stock, subject to adjustment as described below, which is referred to as the exchange ratio.

As part of the merger consideration, each holder of TorreyPines preferred stock immediately prior to the effective time of the merger will receive a merger warrant to purchase its pro rata portion of a total of 12,000,000 shares of Axonyx common stock, subject to adjustment to account for the reverse stock split, based on the number of shares of preferred stock held by such holder as a percentage of the total shares of preferred stock outstanding. The warrants will have an exercise price of $1.04, which is equal to 110% of the average closing price of Axonyx common stock for the five trading days ending on June 5, 2006, the trading day two days prior to the date the merger agreement was signed, subject to adjustment to account for the reverse stock split. The warrants have a term of three years. In the event the average closing price of the combined company's common stock for 20 days within any 30 consecutive trading day period equals or exceeds $2.08, subject to adjustment to account for the reverse stock split and for subsequent stock dividends, stock splits or recapitalizations or the like, then the warrants will be terminated if not exercised within 30 days following notice from the combined company.

The exchange ratio is subject to adjustment to account for the effect of the reverse stock split and subject to adjustment upon the occurrence of certain events, as follows:

- if Axonyx completes an Axonyx permitted out-license prior to the date that is five business days before the date of the Axonyx annual meeting of stockholders, then the exchange ratio will be adjusted in accordance with a formula set forth in the merger agreement to reflect the addition to Axonyx's valuation of 75% of the cash paid to Axonyx at or prior to the closing of the Axonyx permitted out-license, which will have the effect of increasing the percentage of the combined company owned by Axonyx's securityholders and reducing the percentage of the combined company owned by TorreyPines' securityholders. In addition, if Axonyx completes an Axonyx permitted out-license, TorreyPines may elect to terminate the merger agreement and require Axonyx to reimburse it for its expenses, up to a maximum of $1 million; and

- if TorreyPines completes a TorreyPines permitted out-license prior to the date that is five business days before the date of the Axonyx annual meeting of stockholders, then the exchange ratio will be adjusted to reflect the addition to TorreyPines' valuation of 75% of the cash paid to TorreyPines at or prior to the closing of the TorreyPines permitted out-license, which will have the effect of increasing the percentage of the combined company owned by TorreyPines' securityholders and reducing the percentage of the combined company owned by Axonyx's securityholders. In addition, if TorreyPines completes a TorreyPines permitted out-license, Axonyx may elect to terminate the merger agreement and require TorreyPines to reimburse it for its expenses, up to a maximum of $1 million.

Following the merger, assuming that Axonyx Proposal No. 3 is approved by Axonyx's stockholders at the Axonyx annual meeting, Axonyx will be renamed "TorreyPines Therapeutics, Inc." and expects to trade on the NASDAQ Global Market under the symbol "TPTX". Immediately after the merger, TorreyPines securityholders will own approximately 58% of the fully-diluted shares of the combined company (excluding the merger warrants), with Axonyx securityholders holding approximately 42% of the fully-diluted shares of the combined company, in each case calculated using the treasury stock method. If the merger warrants were exercised as of the closing of the merger, TorreyPines securityholders would own approximately 62% of the fully-diluted shares of the combined company, with Axonyx securityholders holding approximately 38% of the fully-diluted shares of the combined company, in each case calculated using the treasury stock method. These percentages assume:

- a reference price of $0.942 per share of Axonyx common stock for treasury stock method calculation purposes, calculated based on the average closing price per share of Axonyx common stock for the five trading days ending June 5, 2006;

- that the number of shares subject to TorreyPines options and warrants does not change between the date of this joint proxy statement/prospectus and the closing of the merger; and

- that the exchange ratio is not adjusted, as described above.

The closing of the merger will occur no later than the fifth business day after the last of the conditions to the merger has been satisfied or waived, or at another time as TorreyPines and Axonyx agree. However, because the merger is subject to a number of conditions, neither Axonyx nor TorreyPines can predict exactly when the closing will occur or if it will occur at all.

Assumption of TorreyPines Stock Options and Warrants

All outstanding options to purchase TorreyPines common stock and warrants to purchase TorreyPines common stock or TorreyPines preferred stock not terminated or exercised prior to the effective time of the merger will be assumed by Axonyx in the merger and will become exercisable for shares of Axonyx common stock based on the exchange ratio as discussed in the section entitled "The Merger Stock Options and Warrants" in this joint proxy statement/prospectus.

Directors and Officers of Axonyx Following the Merger

Following the merger, the combined company will initially have a ten member board of directors, comprised of six individuals from TorreyPines' current board of directors, Neil M. Kurtz, M.D., William T. Comer, Ph.D., Peter Davis, Ph.D., Jean Deleage, Ph.D., Jason Fisherman, M.D. and Patrick Van Beneden and four individuals from Axonyx's current board of directors, Louis G. Cornacchia, Marvin S. Hausman, M.D., Steven H. Ferris, Ph.D. and Steven B. Ratoff.

Effective as of the closing of the merger, the combined company's officers will be Neil M. Kurtz, M.D. (President and Chief Executive Officer), Evelyn Graham (Chief Operating Officer), Craig Johnson (Vice President, Finance and Chief Financial Officer), Michael Murphy, M.D., Ph.D. (Sr. Vice President, Discovery and Development and Chief Medical Officer) and Steven Wagner, Ph.D. (Chief Scientific Officer), each of whom currently holds the same position at TorreyPines.

Amendment to Axonyx's Articles of Incorporation

The merger agreement provides that Axonyx's stockholders must approve, as a condition to closing the merger, the amendment to Axonyx's articles of incorporation to effect a reverse stock split of Axonyx common stock, which requires the affirmative vote of holders of a majority of the outstanding common stock on the record date for the Axonyx annual meeting. Upon the effectiveness of the amendment to Axonyx's articles of incorporation effecting the reverse stock split, or the split effective time, the issued shares of Axonyx common stock immediately prior to the split effective time will be reclassified into a smaller number of shares such that a Axonyx stockholder will own one share of Axonyx common stock for each 5 to 10 shares of issued common stock held by that stockholder immediately prior to the split effective time, the exact split ratio within the 5:1 to 10:1 range to be determined by the Axonyx board of directors prior to the split effective time and to be publicly announced by Axonyx.

Stockholders of record of Axonyx common stock on the record date for the Axonyx annual meeting will be also be asked to approve the amendment to Axonyx's articles of incorporation to change the name of the corporation from "Axonyx Inc." to "TorreyPines Therapeutics, Inc." upon consummation of the merger, which requires the affirmative vote of holders of a majority of the outstanding common stock on the record date for the Axonyx annual meeting.

Change of Axonyx's State of Incorporation from Nevada to Delaware

Following the filing of the amendment to Axonyx's articles of incorporation described above, as a condition to closing the merger, Axonyx will cause its state of incorporation to be changed from Nevada to Delaware.

Conditions to the Completion of the Merger

Each party's obligation to complete the merger is subject to the satisfaction or waiver by each of the parties, at or prior to the merger, of various conditions, which include the following:

- the registration statement on Form S-4, of which this joint proxy statement/prospectus is a part, must have been declared effective by the SEC in accordance with the Securities Act and must not be subject to any stop order or proceeding, or any proceeding threatened by the SEC, seeking a stop order;

- there must not have been issued any temporary restraining order, preliminary or permanent injunction or other order preventing the consummation of the merger, and no law, statute, rule, regulation, ruling or decree shall be in effect which has the effect of making the consummation of the merger illegal;

stockholders of TorreyPines must have adopted the merger agreement, and stockholders of Axonyx must have approved the issuance of Axonyx common stock and the merger warrants, the resulting change in control of Axonyx, the amendment to Axonyx's articles of incorporation effecting the reverse stock split and the name change from "Axonyx Inc." to "TorreyPines Therapeutics, Inc." and the change of Axonyx's state of incorporation from Nevada to Delaware;

the existing shares of Axonyx common stock must have been continually listed on the NASDAQ Capital Market, and Axonyx must have caused the shares of Axonyx common stock that the TorreyPines securityholders will be entitled to receive pursuant to the merger to be approved for listing on the NASDAQ Global Market or NASDAQ Capital Market following the closing of the merger;

any waiting period applicable to the consummation of the merger under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, or any material applicable foreign antitrust requirements reasonably determined to apply to the merger must have expired or been terminated, and there must not be in effect any voluntary agreement by any party to the merger agreement and the U.S. Federal Trade Commission, the U.S. Department of Justice or any foreign governmental body, pursuant to which such party has agreed not to consummate the merger for any period of time; and

there must not be any legal proceeding pending, or overtly threatened in writing by an official of any governmental body in which such governmental body indicates that it intends to conduct any legal proceeding or take any action: (1) challenging or seeking to restrain or prohibit the consummation of the merger; (2) relating to the merger and seeking to obtain from Axonyx, merger sub or TorreyPines any damages or other relief that may be material to Axonyx or TorreyPines; (3) seeking to prohibit or limit in any material and adverse respect a party's ability to vote, transfer, receive dividends with respect to or otherwise exercise ownership rights with respect to the stock of Axonyx; (4) that could materially and adversely affect the right or ability of Axonyx or TorreyPines to own the assets or operate the business of Axonyx or TorreyPines; or (5) seeking to compel TorreyPines, Axonyx or any subsidiary of Axonyx to dispose of or hold separate any material assets as a result of the merger.

In addition, each party's obligation to complete the merger is further subject to the satisfaction or waiver by that party of the following additional conditions:

all representations and warranties of the other party in the merger agreement must be true and correct on the date of the merger agreement and on the closing date of the merger with the same force and effect as if made on the date on which the merger is to be completed or, if such representations and warranties address matters as of a particular date, then as of that particular date, except where the failure of these representations and warranties to be true and correct, disregarding any materiality qualifications, individually or in the aggregate, would not reasonably be expected to have a material adverse effect on the party making the representations and warranties;

the other party to the merger agreement must have performed or complied with in all material respects all covenants and obligations required to be performed or complied with by it on or before the closing of the merger; and

the other party must have delivered the documents required under the merger agreement for the closing of the merger.

In addition, the obligation of Axonyx and the merger sub to complete the merger is further subject to the satisfaction or waiver of the following conditions:

- Axonyx must have received all required third-party and governmental consents, and such consents must be in full force and effect at the closing of the merger;
- Axonyx must have received lock-up agreements from the following TorreyPines securityholders: Neil M. Kurtz, M.D., Evelyn Graham, Craig Johnson, William T. Comer, Ph.D., Roy C. Cosan, Peter Davis, Ph.D., Jean Deleage, Ph.D., Jason S. Fisherman, M.D., Rudolph E. Tanzi, Ph.D., Patrick Van Beneden, Johnson & Johnson Development Corporation, Alta Partners and its affiliates, Advent International and its affiliates and GIMV, NV and its affiliates;
- Axonyx must have received the opinion of Latham & Watkins LLP, dated as of the closing date of the merger, to the effect that, on the basis of the facts, representations and assumptions set forth or referred to in such opinion, the merger will be treated for federal income tax purposes as a reorganization within the meaning of Section 368(a) of the Code.

In addition, the obligation of TorreyPines to complete the merger is further subject to the satisfaction or waiver of the following conditions:

- Axonyx must have at least $38 million in net cash as measured on the last business day of each full calendar month following the date of the merger agreement and the date that is 10 business days prior to the anticipated date for closing, as calculated pursuant to the merger agreement;
- Axonyx must have obtained all required consents;
- Axonyx must have completed the reverse stock split, the name change from "Axonyx Inc." to "TorreyPines Therapeutics, Inc." and the change of its state of incorporation from Nevada to Delaware;
- Axonyx must have delivered to TorreyPines written resignations of the officers and directors of Axonyx that are not continuing as officers and directors of Axonyx following the merger and shall have caused the new board members and officers of the combined company, specified in the merger agreement, to be elected;
- Axonyx must have caused its stockholder rights agreement to be amended in order to exclude TorreyPines and its stockholders from the definition of "Acquiring Person" thereunder;
- Neither the principal executive officer nor the principal financial officer of Axonyx shall have failed to provide, with respect to any document filed with the SEC on or after June 7, 2006, any necessary certification required under Rule 13a-14 under the Securities Exchange Act of 1934, as amended, the Exchange Act; and
- TorreyPines must have received the opinion of Cooley Godward LLP, dated as of the closing date of the merger, to the effect that, on the basis of the facts, representations and assumptions set forth or referred to in such opinion, the merger will be treated for federal income tax purposes as a reorganization within the meaning of Section 368(a) of the Code.

No Solicitation

Each of TorreyPines and Axonyx agreed that, except as described below, TorreyPines and Axonyx and any of their respective subsidiaries will not, nor will either party or any of its subsidiaries authorize or permit any of the officers, directors, investment bankers, attorneys or accountants retained by it or any of its subsidiaries to, and it will use its commercially reasonable efforts to cause its and its

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subsidiaries' non-officer employees and other agents not to, and will not authorize any of them to, directly or indirectly:

- solicit, initiate, encourage, induce or knowingly facilitate the communication, making, submission or announcement of, any "acquisition proposal," as defined below, or inquiry, indication of interest or request for information that could reasonably be expected to lead to an acquisition proposal;

- furnish to any person any information with respect to it in connection with or in response to an acquisition proposal, indication of interest or request for information;

- engage in discussions or negotiations with respect to any acquisition proposal, indication of interest or request for information;

- approve, endorse or recommend an acquisition proposal; or

- execute or enter into any letter of intent or similar document or any contract contemplating or otherwise relating to an acquisition proposal.

An "acquisition proposal" means any offer or proposal with respect to an "acquisition transaction," as defined below.

An "acquisition transaction" means the following:

- any merger, consolidation, amalgamation, share exchange, business combination, issuance or acquisition of securities, reorganization, recapitalization, tender offer, exchange offer or similar transaction: (1) in which TorreyPines, Axonyx or merger sub is a constituent corporation, (2) in which any individual, entity, governmental entity, or "group," as defined under applicable securities laws, directly or indirectly acquires beneficial or record ownership of securities representing more than 15% of the outstanding securities of any class of voting securities of TorreyPines, Axonyx or merger sub or any of their subsidiaries or (3) in which TorreyPines, Axonyx or merger sub or any of their subsidiaries issues securities representing more than 15% of the outstanding voting securities of any class of voting securities of such party or any of its subsidiaries;

- any sale, lease, exchange, transfer, license, acquisition or disposition of any business or assets that constitute 15% or more of the consolidated net revenues, net income or book value of the assets of or fair market value of the assets of TorreyPines, Axonyx or merger sub and their subsidiaries, taken as a whole; and

- any liquidation or dissolution of TorreyPines, Axonyx or merger sub.

Notwithstanding the foregoing, the following transactions have been excluded from the definition of "acquisition transaction" and the no solicitation provisions do not restrict any of the following activities:

- in the case of Axonyx, Axonyx's ability to negotiate or consummate an Axonyx permitted out-license; and

- in the case of TorreyPines, TorreyPines' ability to negotiate or consummate a TorreyPines permitted out-license.

However, before obtaining the applicable TorreyPines or Axonyx stockholder approvals required to consummate the merger, each party may furnish information regarding such party to, and may enter into discussions or negotiations with, any third party in response to a bona fide written acquisition proposal made or received after the date of the merger agreement, which such party's board of

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directors determines in good faith, after consultation with a nationally recognized independent financial advisor and its outside legal counsel, constitutes or is reasonably likely to result in a "superior offer" if:

neither such party nor any representative of such party has breached the no solicitation provisions of the merger agreement described above;

that party's board of directors concludes in good faith, based on the advice of outside legal counsel, that the failure to take such action is reasonably likely to result in a breach of the fiduciary duties of such board of directors under applicable legal requirements;

that party gives the other party at least two business days' prior notice of the identity of the third party and of that party's intention to furnish information to, or enter into discussions or negotiations with, such third party before furnishing any information or entering into discussions or negotiations with such person;

that party receives from the third party an executed confidentiality agreement containing provisions at least as favorable to such party as those contained in the confidentiality agreement between TorreyPines and Axonyx; and

at least two business days' prior to the furnishing of any information to a third party, that party furnishes the same information to the other party to the extent not previously furnished.

A "superior offer" means an unsolicited, bona fide written offer made by a third party to enter into (1) a merger, consolidation, amalgamation, share exchange, business combination, issuance of securities, acquisition of securities, reorganization, recapitalization, tender offer, exchange offer or other similar transaction as a result of which either (A) the party's stockholders prior to such transaction in the aggregate cease to own at least 50% of the voting securities of the entity surviving or resulting from such transaction, or the ultimate parent entity thereof, or (B) in which a person or "group," as defined under applicable securities laws, directly or indirectly acquires beneficial or record ownership of securities representing 50% or more of the party's capital stock or (2) a sale, lease, exchange transfer, license, acquisition or disposition of any business or other disposition of at least 50% of the assets of the party or its subsidiaries, taken as a whole, in a single transaction or a series of related transactions that: (x) was not obtained or made as a direct or indirect result of a breach of the merger agreement, and (y) is on terms and conditions that the board of directors of the party receiving the offer determines in its good faith judgment, after obtaining and taking into account such matters as its board of directors deems relevant following consultation with its outside legal counsel and financial advisor:

is reasonably likely to be more favorable, from a financial point of view, to that party's stockholders than the terms of the merger; and

is reasonably capable of being consummated.

An offer will not be a superior offer if (1) any financing required to consummate the transaction contemplated by such offer is not committed and is not reasonably capable of being obtained by such third party or (2) if the consummation of such transaction is contingent on any such financing being obtained.

The merger agreement also provides that each party will promptly advise the other of the status and terms of, and keep the other party fully informed with respect to, any acquisition proposal or any inquiry, indication of interest or request for information that could reasonably be expected to lead to an acquisition proposal or any change or proposed change to that acquisition proposal or inquiry, indication of interest or request for information.

Meetings of Stockholders

Axonyx is obligated under the merger agreement to call, give notice of and hold the Axonyx annual meeting for purposes of considering the issuance of shares of Axonyx common stock and the merger warrants, the change in control of Axonyx, the amendment to Axonyx's articles of incorporation effecting the reverse stock split and the name change from "Axonyx Inc." to "TorreyPines Therapeutics, Inc.", the change of Axonyx's state of incorporation from Nevada to Delaware and the approval of the Axonyx 2006 Equity Incentive Plan.

TorreyPines is obligated under the merger agreement to call, give notice of and hold the TorreyPines special meeting for purposes of considering the adoption of the merger agreement.

Covenants; Conduct of Business Pending the Merger

TorreyPines agreed that it will conduct its business in the ordinary course in accordance with past practices and in compliance with all applicable laws, regulations, and certain contracts, and to take other agreed-upon actions. TorreyPines also agreed that, subject to certain limited exceptions, without the consent of Axonyx, it would not, during the period prior to closing of the merger:

declare, accrue, set aside or pay any dividends or make any other distributions in respect of any shares of its capital stock, repurchase or redeem any securities;

sell, issue or grant any securities, including options and warrants or any other instruments convertible into securities of TorreyPines (but excluding any shares of TorreyPines common stock issued upon the valid exercise of outstanding options);

amend or waive any rights under, or permit the acceleration of vesting under, any stock option plan, stock option, restricted stock purchase agreement, or other contract relating to any equity award;

modify its certificate of incorporation or bylaws or effect or become a party to any merger, consolidation, recapitalization, reclassification, stock split or similar transaction;

form any subsidiary or acquire equity or other interests in another entity;

lend money to any person, incur or guarantee any indebtedness, issue, sell or guarantee any debt securities or make any capital expenditure or commitment in excess of $100,000;

establish or adopt any employee plan, pay any bonus or make any bonus, profit sharing or similar payment to or increase the wages, salary, commissions, fringe benefits or other compensation of any of its directors or employees, other than in the ordinary course of business;

change any of its methods of accounting or accounting practices;

make any material tax election, file any material amendment to any tax return, enter into any tax allocation, sharing or indemnity agreement, settle any claim, notice, audit report or assessment with respect to any taxes, surrender any right to claim a material tax refund or consent to the extension or waiver of the statute of limitations period applicable to any material tax claim or assessment;

commence or settle any legal proceeding;

enter into material transaction outside the ordinary course of business;

acquire any material asset or sell, lease or otherwise irrevocably dispose of any material asset or property, or grant any encumbrance with respect to such assets or properties, except in the ordinary course of business consistent with past practices;

enter into, amend or terminate any material contract;

make any material change to, or agree to change, the pricing or royalties or other payments set or charged by TorreyPines or any of its subsidiaries to its customers or licensees or agree to change pricing or royalties or other payments set or charged by persons who have licensed intellectual property to TorreyPines or any of its subsidiaries; or

negotiate, agree or commit to take any of these actions set forth above.

TorreyPines' ability to negotiate or consummate a TorreyPines permitted out-license has been excluded from the foregoing list of restricted activities.

Axonyx agreed that it will conduct its business in the ordinary course consistent with past practices and in compliance with all applicable laws, regulations and certain contracts, and to take other agreed-upon actions. Axonyx also agreed that, subject to certain limited exceptions, without the consent of TorreyPines, it would not, during the period prior to the closing of the merger:

declare, accrue, set aside or pay any dividends or make any other distributions in respect of any shares of its capital stock or repurchase or redeem any securities;

sell, issue or grant any securities, including options and warrants or any other instruments convertible into securities of Axonyx (but excluding any shares of Axonyx common stock issued upon the valid exercise of outstanding options);

amend or waive any rights under, or permit the acceleration of vesting under, any stock option plan, stock option, restricted stock purchase agreement, or other contract relating to any equity award;

modify its articles of incorporation or bylaws or effect or become a party to any merger, consolidation, recapitalization, reclassification, stock split or similar transaction;

form any subsidiary or acquire equity or other interests in another entity;

lend money to any person, incur or guarantee any indebtedness, issue, sell or guarantee any debt securities or make any capital expenditure or commitment in excess of $100,000;

establish or adopt any employee plan, pay any bonus or make any bonus, profit sharing or similar payment to or increase the wages, salary, commissions, fringe benefits or other compensation of any of its directors or employees, other than in the ordinary course of business;

change any of its methods of accounting or accounting practices;

make any material tax election, file any material amendment to any tax return, enter into any tax allocation, sharing or indemnity agreement, settle any claim, notice, audit report or assessment with respect to any taxes, surrender any right to claim a material tax refund or consent to the extension or waiver of the statute of limitations period applicable to any material tax claim or assessment;

commence or settle any legal proceeding;

enter into material transaction outside the ordinary course of business;

acquire any material asset or sell, lease or otherwise irrevocably dispose of any material asset or property, or grant any encumbrance with respect to such assets or properties, except in the ordinary course of business consistent with past

practices;

enter into, amend or terminate any material contract;

make any material change to, or agree to change, the pricing or royalties or other payments set or charged by Axonyx or any of its subsidiaries to its customers or licensees or agree to change

pricing or royalties or other payments set or charged by persons who have licensed intellectual property to Axonyx or any of its subsidiaries; or

negotiate, agree or commit to take any of these actions set forth above.

Axonyx's ability to negotiate or consummate an Axonyx permitted out-license has been excluded from the foregoing list of restricted activities.

Other Agreements

Each of TorreyPines and Axonyx has agreed to use its commercially reasonable efforts to:

file or otherwise submit all applications, notices, reports and other documents reasonably required to be filed with a governmental entity with respect to the merger;

take all actions necessary to complete the merger;

coordinate with the other in preparing and exchanging information and promptly provide the other with copies of all filings or submissions made in connection with the merger;

obtain all consents, approvals or waivers reasonably required in connection with the transactions contemplated by the merger agreement;

lift any injunction prohibiting the merger or other transactions contemplated by the merger agreement; and

consult and agree with each other about any public statement either will make concerning the merger, subject to certain exceptions.

TorreyPines and Axonyx agreed that:

Axonyx will use reasonable best efforts to maintain the listing of its common stock on the NASDAQ Capital Market and to obtain approval for listing on the NASDAQ Global Market or NASDAQ Capital Market of the combined company and to cause the shares of its common stock and shares of common stock issuable upon exercise of the merger warrants that TorreyPines securityholders will be entitled to receive pursuant to the merger to be approved for listing on the NASDAQ Global Market or NASDAQ Capital Market; and

for a period of six years after the closing of the merger, the combined company will indemnify each of the directors and officers of TorreyPines and Axonyx to the fullest extent permitted under the DGCL and will maintain directors' and officers' liability insurance for TorreyPines' and Axonyx's directors and officers.

Termination

The merger agreement may be terminated at any time before the completion of the merger, whether before or after the required stockholder approvals to complete the merger have been obtained, as set forth below:

by mutual written consent duly authorized by the board of directors of each of TorreyPines and Axonyx;

by TorreyPines or Axonyx if the merger has not been completed by November 30, 2006, but this right to terminate the merger agreement will not be available to any party whose action or failure to act has been a principal cause of the failure of

the merger to be completed by such date and such action or failure to act constitutes a breach of the merger agreement;

by TorreyPines or Axonyx if a governmental entity has issued a final and nonappealable order, decree or ruling or taken any other action that permanently restrains, enjoins or otherwise prohibits the merger;

by TorreyPines or Axonyx if the stockholders of TorreyPines have not adopted the merger agreement at the TorreyPines special meeting or any adjournment or postponement thereof, but TorreyPines may not terminate the merger agreement pursuant to this provision if failure to obtain the approval of TorreyPines' stockholders was caused by the action or failure to act of TorreyPines and such action or failure to act constitutes a material breach by TorreyPines of the merger agreement;

by TorreyPines or Axonyx if the stockholders of Axonyx have not approved the issuance of Axonyx common stock and the merger warrants as well as the resulting change in control of Axonyx, the amendment to Axonyx's articles of incorporation effecting the reverse stock split and the name change from "Axonyx Inc." to "TorreyPines Therapeutics, Inc." and the change of Axonyx's state of incorporation from Nevada to Delaware at the Axonyx annual meeting or any adjournment or postponement thereof, but Axonyx may not terminate the merger agreement pursuant to this provision if failure to obtain the approval of Axonyx stockholders was caused by the action or failure to act of Axonyx and such action or failure to act constitutes a material breach by Axonyx of the merger agreement;

by TorreyPines, at any time prior to the approval of the issuance of the shares of Axonyx common stock pursuant to the merger, if:

Axonyx's board of directors fails to recommend that Axonyx's stockholders vote to approve the issuance of Axonyx common stock and the merger warrants and the resulting change in control of Axonyx, the amendment to Axonyx's articles of incorporation effecting the reverse stock split and the name change from "Axonyx Inc." to "TorreyPines Therapeutics, Inc." and the change of Axonyx's state of incorporation from Nevada to Delaware or withdraws or modifies its recommendation in a manner adverse to TorreyPines;

Axonyx fails to include in this joint proxy statement/prospectus such recommendation;

Axonyx fails to hold the Axonyx annual meeting within 60 days after the registration statement on Form S-4 of which this joint proxy statement/prospectus is a part is declared effective under the Securities Act, other than to the extent that such registration statement is subject to a stop order or proceeding, or threatened proceeding by the SEC, seeking a stop order with respect to such registration statement, in which case such 60-day period will be tolled for so long as such stop order remains in effect or proceeding or threatened proceeding remains pending;

the Axonyx board of directors approves, endorses or recommends any acquisition proposal, as defined in the section entitled "The Merger Agreement No Solicitation" in this joint proxy statement/prospectus;

Axonyx enters into any letter of intent or similar document or any contract relating to any acquisition proposal, other than a confidentiality agreement permitted pursuant to the merger agreement; or

Axonyx or any director, officer or agent of Axonyx willfully and intentionally breaches the no solicitation provisions set forth in the merger agreement (each of the above clauses is referred to as an Axonyx triggering event);

by Axonyx, at any time prior to the adoption of the merger agreement by the stockholders of TorreyPines, if:

TorreyPines' board of directors fails to recommend that TorreyPines' stockholders vote to approve the merger or withdraws or modifies its recommendation in a manner adverse to Axonyx;

TorreyPines fails to include in this joint proxy statement/prospectus such recommendation;

TorreyPines fails to hold the TorreyPines special meeting within 60 days after the registration statement on Form S-4 of which this joint proxy statement/prospectus is a part is declared effective under the Securities Act, other than to the extent that such registration statement is subject to a stop order or proceeding, or threatened proceeding by the SEC, seeking a stop order with respect to such registration statement, in which case such 60-day period will be tolled for so long as such stop order remains in effect or proceeding or threatened proceeding remains pending;

the TorreyPines board of directors approves, endorses or recommends any acquisition proposal, as defined in the section entitled "The Merger Agreement No Solicitation" in this joint proxy statement/prospectus;

TorreyPines enters into any letter of intent or similar document or any contract relating to any acquisition proposal, other than a confidentiality agreement permitted pursuant to the merger agreement; or

TorreyPines or any director, officer or agent of TorreyPines willfully and intentionally breaches the no solicitation provisions set forth in the merger agreement (each of the above clauses is referred to as a TorreyPines triggering event); or

by TorreyPines or Axonyx if the other party has breached any of its representations, warranties, covenants or agreements contained in the merger agreement or if any representation or warranty of the other party has become inaccurate, in either case such that the conditions to the closing of the merger would not be satisfied as of time of such breach or inaccuracy, but if such breach or inaccuracy is curable, then the merger agreement will not terminate pursuant to this provision as a result of a particular breach or inaccuracy until the earlier of the expiration of a 30-day period after delivery of written notice of such breach or inaccuracy and the breaching party ceasing to exercise commercially reasonable efforts to cure such breach, if such breach has not been cured;

by Axonyx if TorreyPines completes a TorreyPines permitted out-license;

by TorreyPines if the Axonyx annual meeting has not been held and completed prior to October 15, 2006;

by TorreyPines if Axonyx completes an Axonyx permitted out-license; and

by TorreyPines if Axonyx's net cash is less than $38 million as measured on the last business day of any full calendar month following the date of the merger agreement and the date that is 10 business days prior to the anticipated date for closing.

For purposes of the net cash determination, Axonyx's net cash balance will generally be equal to the amount of cash, cash equivalents, short term investments, net accounts receivable and restricted cash as of the date of such measurement and determined in a manner substantially consistent with the manner in which each such item was determined for Axonyx's then most recent consolidated balance sheets filed with the SEC, minus Axonyx's accounts payable and accrued expenses, contractual obligations, restructuring accruals, change of control payments, severance payments and certain other similar payments arising as a result of the merger, accrued and unpaid retention payments, unpaid

taxes, payments to its advisors for fees and expenses in connection with the merger, any insured liabilities or damages arising from the pending Axonyx securities litigation, and any proceeds from the disposition of the OXIS investment.

Termination Fee

Fee payable by Axonyx

Axonyx must pay TorreyPines a termination fee of $2 million, less any expenses of TorreyPines paid by Axonyx, as discussed below, if:

- the merger agreement is terminated because Axonyx's stockholders do not approve the issuance of Axonyx common stock and the merger warrants in the merger, the resulting change in control of Axonyx, the amendment to Axonyx's articles of incorporation effecting the reverse stock split and the name change from "Axonyx Inc." to "TorreyPines Therapeutics, Inc." and the change of Axonyx's state of incorporation from Nevada to Delaware, and an acquisition proposal, as defined above in the section entitled "The Merger Agreement No Solicitation," with respect to Axonyx was publicly announced, disclosed or otherwise communicated to the board of directors of Axonyx prior to the Axonyx annual meeting and Axonyx enters into a definitive agreement for, or consummates, an acquisition transaction, as defined above in the section entitled "The Merger Agreement No Solicitation," within 12 months of the termination; or

- the merger agreement is terminated by TorreyPines because of an Axonyx triggering event, as defined above in the section entitled "The Merger Agreement Termination."

Axonyx is also required to reimburse TorreyPines' expenses in the merger, up to a maximum of $1 million, if:

- the merger agreement is terminated because Axonyx stockholders do not approve the issuance of Axonyx common stock and the merger warrants in the merger, the resulting change in control of Axonyx, the amendment to Axonyx's articles of incorporation effecting the reverse stock split and the name change from "Axonyx Inc." to "TorreyPines Therapeutics, Inc." and the change of Axonyx's state of incorporation from Nevada to Delaware, and an acquisition proposal, as defined above in the section entitled "The Merger Agreement No Solicitation," with respect to Axonyx was publicly announced, disclosed or otherwise communicated to the board of directors of Axonyx prior to the Axonyx annual meeting;

- if the merger agreement is terminated because the Axonyx annual meeting has not been held and completed prior to October 15, 2006;

- if the merger agreement is terminated because Axonyx completes an Axonyx permitted out-license; or

- if the merger agreement is terminated because Axonyx's net cash is less than $38 million as measured on the last business day of each full calendar month following the date of the merger agreement and the date that is 10 business days prior to the anticipated date for closing.

Fees payable by TorreyPines

TorreyPines must pay Axonyx a termination fee of $2 million, less any expenses of Axonyx paid by TorreyPines, as discussed below, if:

- the merger agreement is terminated because TorreyPines' stockholders do not approve the merger and an acquisition proposal, as defined above in the section entitled "The Merger Agreement No Solicitation," with respect to TorreyPines was publicly announced, disclosed or otherwise communicated to the board of directors of TorreyPines prior to the TorreyPines special

meeting and TorreyPines enters into a definitive agreement for, or consummates, an acquisition transaction, as defined above in the section entitled "The Merger Agreement No Solicitation," within 12 months of the termination; or

the merger agreement is terminated by Axonyx because of a TorreyPines triggering event, as defined above in the section entitled "The Merger Agreement Termination."

TorreyPines is also required to reimburse Axonyx's expenses in the merger, up to a maximum of $1 million, if:

the merger agreement is terminated because TorreyPines stockholders do not approve the merger and an acquisition proposal, as defined above in the section entitled "The Merger Agreement No Solicitation," with respect to TorreyPines was publicly announced, disclosed or otherwise communicated to the board of directors of TorreyPines prior to the TorreyPines special meeting; or

if the merger agreement is terminated because TorreyPines completes a TorreyPines permitted out-license.

Representations and Warranties

The merger agreement contains customary representations and warranties of Axonyx and TorreyPines relating to, among other things:

corporate organization and power and similar corporate matters;

subsidiaries;

capital structure;

any conflicts or violations of each party's agreements as a result of the merger or the merger agreement;

financial statements and, with respect to Axonyx, documents filed with the SEC and the accuracy of information contained in those documents;

any undisclosed liabilities;

any material changes or events;

title to assets;

bank accounts and receivables;

real property and leaseholds;

filing of tax returns and payment of taxes;

intellectual property;

compliance with legal requirements;

litigation matters;

any brokerage or finder's fee or other fee or commission in connection with the merger;

employee benefits and related matters;

any liens and encumbrances;

environmental matters;

regulatory compliance;

insurance matters;

the validity of material contracts to which the parties or their subsidiaries are a party and any violation, default or breach to such contracts;

authority to enter into the merger agreement and the related agreements;

approval by the board of directors;

votes required for completion of the merger and approval of the proposals that will come before each of the Axonyx annual meeting and the TorreyPines special meeting;

transactions with affiliates;

with respect to Axonyx, disclosure controls and procedures, the timely filing of all registration statements in connection with private placement transactions and related matters;

with respect to Axonyx the amendment of the Axonyx stockholder rights agreement;

with respect to Axonyx, the valid issuance in the merger of the Axonyx common stock and common stock issuable upon exercise of the merger warrants to the TorreyPines securityholders; and

the inapplicability of the provisions of Section 203 of the DGCL to the merger.

The representations and warranties are, in many respects, qualified by materiality and knowledge, and will not survive the merger, but their accuracy forms the basis of one of the conditions to the obligations of TorreyPines and Axonyx to complete the merger.

Amendment

The merger agreement may be amended by the parties at any time, except that after the merger agreement has been adopted by the stockholders of TorreyPines or Axonyx, no amendment which by law requires further approval by the stockholders of TorreyPines or Axonyx, as the case may be, shall be made without such further approval.

AGREEMENTS RELATED TO THE MERGER

Voting Agreements

In order to induce Axonyx to enter into the merger agreement, several TorreyPines stockholders entered into voting agreements and irrevocable proxies with Axonyx pursuant to which, among other things, each of these stockholders agreed, solely in its capacity as a stockholder, to vote all of its shares of TorreyPines capital stock in favor of the merger and the adoption of the merger agreement, against any action or agreement that would result in a breach of the merger agreement by TorreyPines, and against any other action which is intended, or could reasonably be expected to, impede, interfere with, delay, postpone, discourage or adversely affect the merger or any of the other transactions contemplated by the merger agreement, except for a TorreyPines permitted out-license or the TorreyPines preferred stock financing. These TorreyPines stockholders also granted Axonyx an irrevocable proxy to their respective shares in accordance with the voting agreement. These TorreyPines stockholders may vote their shares of TorreyPines capital stock on all other matters not referred to in such proxy.

As of June 7, 2006, the stockholders of TorreyPines that entered into voting agreements owned in the aggregate 1,100,000 shares of TorreyPines common stock and 39,379,400 shares of TorreyPines preferred stock, representing approximately 33% of the outstanding TorreyPines common stock, approximately 80% of the outstanding TorreyPines preferred stock and approximately 77% of the aggregate outstanding TorreyPines capital stock. All of these stockholders are executive officers, directors, or entities controlled by such persons, or 5% stockholders, of TorreyPines. Notwithstanding the foregoing, if the TorreyPines board of directors withdraws its recommendation in favor of the merger to the extent permitted under the merger agreement and TorreyPines receives a superior offer, as defined in the section entitled "The Merger Agreement No Solicitation" in this joint proxy statement/prospectus, the voting agreement will only apply to the number of shares of TorreyPines capital stock that is equal to 33% of the outstanding TorreyPines common stock and preferred stock, voting together as a class, and 33% of the TorreyPines preferred stock, voting separately as a class.

Under these voting agreements executed by TorreyPines stockholders, subject to certain exceptions, such stockholders also have agreed not to sell or transfer TorreyPines capital stock and options and warrants to purchase TorreyPines capital stock held by them until the earlier of the termination of the merger agreement or the completion of the merger. To the extent that any such sale or transfer is permitted pursuant to the exceptions included in the voting agreement, each person to which any shares of capital stock are so sold or transferred must agree in writing to be bound by the terms and provisions of the voting agreement.

In addition, in order to induce TorreyPines to enter into the merger agreement, several Axonyx stockholders entered into voting agreements and irrevocable proxies with TorreyPines pursuant to which, among other things, each of these stockholders agreed, solely in his capacity as a stockholder, to vote all of his shares of Axonyx common stock in favor of the approval of the issuance of the shares of Axonyx common stock and the merger warrants, the amendment to Axonyx's articles of incorporation effecting the reverse stock split and the name change from "Axonyx Inc." to "TorreyPines Therapeutics, Inc.", the change of Axonyx's state of incorporation from Nevada to Delaware, approval of the Axonyx 2006 Equity Incentive Plan and any action in furtherance of the foregoing and against any action or agreement that would result in a breach of the merger agreement by Axonyx and against any other action which is intended, or could reasonably be expected to, impede, interfere with, delay, postpone, discourage or adversely affect the merger or any of the other transactions contemplated by the merger agreement, except for an Axonyx permitted out-license. These Axonyx stockholders also granted TorreyPines an irrevocable proxy to their respective shares in accordance with the voting agreement. These Axonyx stockholders may vote their shares of Axonyx common stock on all other matters not referred to in such proxy.

The Axonyx stockholders that entered into voting agreements are Axonyx officers and directors. As of June 7, 2006, these stockholders owned in the aggregate shares representing approximately 4.7% of the outstanding Axonyx common stock.

Under these voting agreements executed by Axonyx's stockholders, subject to certain exceptions, such stockholders also have agreed not to sell or transfer Axonyx common stock and options and warrants to acquire Axonyx common stock held by them until the earlier of the termination of the merger agreement or the completion of the merger. To the extent that any such sale or transfer is permitted pursuant to the exceptions included in the voting agreement, each person to which any shares of common stock are so sold or transferred must agree in writing to be bound by the terms and provisions of the voting agreement.

Lock-up Agreements

As a condition to the closing of the merger, the TorreyPines securityholders listed below will enter into a lock-up agreement, pursuant to which such parties will agree not to sell or transfer, or engage in hedging or similar transactions with respect to, the shares of Axonyx common stock and merger warrants that they receive pursuant to the terms of the merger agreement from the closing date of the merger until 180 days after the closing of the merger, except in limited circumstances. The following TorreyPines securityholders will execute lock-up agreements: Neil M. Kurtz, M.D., Evelyn Graham, Craig Johnson, William T. Comer, Ph.D., Roy C. Cosan, Peter Davis, Ph.D., Jean Deleage, Ph.D., Jason S. Fisherman, M.D., Rudolph E. Tanzi, Ph.D., Patrick Van Beneden, Johnson & Johnson Development Corporation, Alta Partners and its affiliates, Advent International and its affiliates and GIMV, NV and its affiliates. As of August 23, 2006, these securityholders beneficially owned in the aggregate approximately 78% of the TorreyPines common and preferred stock.

MATTERS BEING SUBMITTED TO A VOTE OF AXONYX STOCKHOLDERS

Axonyx Proposal No. 1: Approval of the Issuance of Common Stock and Merger Warrants in the Merger and the Resulting Change in Control

At the Axonyx annual meeting, Axonyx stockholders will be asked to approve (a) the issuance of Axonyx common stock and the merger warrants pursuant to the merger agreement and (b) the change in control of Axonyx resulting from the issuance of Axonyx common stock and the merger warrants in the merger. Immediately following the merger, TorreyPines securityholders will own approximately 58% of the fully-diluted shares of the combined company (excluding the merger warrants), with existing Axonyx securityholders holding approximately 42% of the fully-diluted shares of the combined company, in each case calculated using the treasury stock method. If the merger warrants were exercised as of the closing of the merger, TorreyPines securityholders would own approximately 62% of the fully-diluted shares of the combined company, with Axonyx securityholders holding approximately 38% of the fully-diluted shares of the combined company, in each case calculated using the treasury stock method. These percentages assume:

- a reference price of $0.942 per share of Axonyx common stock for treasury stock method calculation purposes, calculated based on the average closing price per share of Axonyx common stock for the five trading days ending June 5, 2006;
- that the number of shares subject to TorreyPines options and warrants does not change between the date of this joint proxy statement/prospectus and the closing of the merger; and
- that the exchange ratio is not adjusted, as described below.

The terms of, reasons for and other aspects of the merger agreement, the merger and the issuance of Axonyx common stock and the merger warrants pursuant to the merger agreement are described in detail in the other sections in this joint proxy statement/prospectus.

Required Vote

The affirmative vote of the holders of a majority of the shares of Axonyx common stock having voting power present in person or represented by proxy at the Axonyx annual meeting is required for approval of Axonyx Proposal No. 1.

THE AXONYX BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT AXONYX'S STOCKHOLDERS VOTE "FOR" AXONYX PROPOSAL NO. 1 TO APPROVE THE ISSUANCE OF AXONYX COMMON STOCK AND THE MERGER WARRANTS PURSUANT TO THE MERGER AGREEMENT AND THE RESULTING CHANGE IN CONTROL OF AXONYX.

Axonyx Proposal No. 2: Approval of Amendment to Axonyx's Articles of Incorporation Effecting the Reverse Stock Split

General

At the Axonyx annual meeting, Axonyx stockholders will be asked to approve an amendment to Axonyx's articles of incorporation effecting a reverse stock split of the issued shares of Axonyx common stock, at a ratio within the range of 5:1 to 10:1. The approval of Axonyx Proposal No. 2 by the Axonyx stockholders is a condition to Axonyx's and TorreyPines' obligation to complete the merger. In addition, because Axonyx does not currently have enough authorized shares of common stock available for issuance to pay the aggregate merger consideration to TorreyPines stockholders, the reverse stock split is necessary in order to consummate the merger. Upon the effectiveness of the amendment to Axonyx's articles of incorporation effecting the reverse stock split, or the split effective time, the issued shares of Axonyx common stock immediately prior to the split effective time will be reclassified into a smaller number of shares such that an Axonyx stockholder will own one new share of Axonyx common stock for each 5 to 10 shares of issued common stock held by that stockholder immediately prior to the split effective time, the exact split ratio within the 5:1 to 10:1 range to be determined by the Axonyx board of directors prior to the split effective time and to be publicly announced by Axonyx.

The following table provides estimates of the number of shares of Axonyx common stock authorized, issued and outstanding, reserved for issuance and authorized but neither issued nor reserved for issuance at the following times: (i) prior to the reverse stock split and closing of the merger, (ii) assuming a 5:1 reverse stock split but prior to closing of the merger, (iii) assuming a 10:1 reverse stock split but prior to closing of the merger, (iv) assuming a 5:1 reverse stock split and the closing of the merger, and (v) assuming a 10:1 reverse stock split and the closing of the merger:

	Number of Shares of Common Stock Authorized	Number of Shares Issued and Outstanding(1)	Number of Shares Reserved For Issuance(1)	Number of Shares Authorized but Neither Issued nor Reserved for Issuance(1)
Prior to the Reverse Stock Split and Closing of the Merger:	150,000,000	53,680,721	15,124,716(2)	81,194,563(2)
After Assumed 5:1 Reverse Stock Split but Prior to Closing of the Merger:	150,000,000	10,736,144	3,024,943(3)	136,238,913(3)
After Assumed 10:1 Reverse Stock Split but Prior to Closing of the Merger:	150,000,000	5,368,072	1,512,472(4)	143,119,456(4)
After Assumed 5:1 Reverse Stock Split and Issuance of Shares Following Closing of the Merger:	150,000,000	24,329,772(5)	4,826,423(7)	120,843,804
After Assumed 10:1 Reverse Stock Split and Issuance of Shares Following Closing of the Merger:	150,000,000	12,164,886(6)	2,413,212(8)	135,421,902

(1) These estimates assume 53,680,721 shares of Axonyx common stock issued and outstanding immediately prior to the closing of the merger which was the number of shares issued and outstanding as of June 7, 2006.

(2) Does not include an additional 88,992,322 shares of common stock reserved for issuance to TorreyPines stockholders in connection with the merger contingent upon the completion of the reverse stock split.

(3) Does not include an additional 17,795,108 shares of common stock reserved for issuance to TorreyPines stockholders in connection with the merger, as adjusted for the reverse stock split.

(4) Does not include an additional 8,897,554 shares of common stock reserved for issuance to TorreyPines stockholders in connection with the merger, as adjusted for the reverse stock split.

(5) This assumes 10,736,144 shares of Axonyx common stock issued and outstanding immediately prior to the closing of the merger and 13,593,628 shares of Axonyx common stock that TorreyPines stockholders will be entitled to receive in connection with the merger.

(6) This assumes 5,368,072 shares of Axonyx common stock issued and outstanding immediately prior to the closing of the merger and 6,796,814 shares of Axonyx common stock that TorreyPines stockholders will be entitled to receive in connection with the merger.

(7) This assumes 3,024,943 shares of Axonyx common stock reserved for issuance for the exercise of options and warrants to purchase shares of Axonyx common stock outstanding immediately prior to the closing of the merger and 1,801,480 shares of Axonyx common stock reserved for issuance for the exercise of options and warrants to purchase shares of Axonyx common stock that the holders of options and warrants to purchase shares of TorreyPines capital stock will be entitled to receive in connection with the merger and 2,400,000 shares of Axonyx common stock reserved for issuance for the exercise of the merger warrants that holders of TorreyPines preferred stock will be entitled to receive in connection with the merger.

(8) This assumes 1,512,472 shares of Axonyx common stock reserved for issuance for the exercise of options and warrants to purchase shares of Axonyx common stock outstanding immediately prior to the closing of the merger and 900,740 shares of Axonyx common stock reserved for issuance for the exercise of options and warrants to purchase shares of Axonyx common stock that the holders of options and warrants to purchase shares of TorreyPines capital stock will be entitled to receive in connection with the merger and 1,200,000 shares of Axonyx common stock reserved for issuance for the exercise of the merger warrants that holders of TorreyPines preferred stock will be entitled to receive in connection with the merger.

If Axonyx Proposal No. 2 is approved, the reverse stock split would become effective in connection with the closing of the merger. The Axonyx board of directors may effect only one reverse stock split in connection with this Axonyx Proposal No. 2. The Axonyx board of directors' decision will be based on a number of factors, including market conditions, existing and expected trading prices for Axonyx's common stock and the listing requirements of the NASDAQ Stock Market.

The Axonyx board of directors may determine to effect the reverse stock split, if it is approved by the stockholders, even if the other proposals to be acted upon at the meeting are not approved, including the issuance of shares of Axonyx common stock and the merger warrants pursuant to the merger agreement.

The form of the amendment to Axonyx's articles of incorporation to effect the reverse stock split, as more fully described below, will effect the reverse stock split but will not change the number of authorized shares of common stock or preferred stock, or the par value of Axonyx's common stock or preferred stock.

Purpose

The Axonyx board of directors approved the proposal approving the certificate of amendment to Axonyx's articles of incorporation effecting the reverse stock split for the following reasons:

- because Axonyx does not currently have enough authorized shares of common stock available for issuance to pay the aggregate merger consideration to TorreyPines stockholders, the reverse stock split is necessary in order to consummate the merger;

- the board of directors believes effecting the reverse stock split may be an effective means of avoiding a delisting of Axonyx's common stock from the NASDAQ Stock Market in the future; and

- the board of directors believes a higher stock price may help generate investor interest in Axonyx and help Axonyx attract and retain employees.

If the reverse stock split successfully increases the per share price of Axonyx's common stock, Axonyx's board of directors believes this increase may increase trading volume in Axonyx's common stock and facilitate future financings by Axonyx.

NASDAQ Requirements for Listing on the NASDAQ Global Market

Axonyx's common stock is quoted on the NASDAQ Capital Market under the symbol "AXYX". Axonyx intends to file an initial listing application with NASDAQ to seek listing on the NASDAQ Global Market upon the closing of the merger.

According to NASDAQ rules, an issuer must, in a case such as this, apply for initial inclusion following a transaction whereby the issuer combines with a non-NASDAQ entity, resulting in a change of control of the issuer and potentially allowing the non-NASDAQ entity to obtain a NASDAQ listing. Accordingly, the listing standards of the NASDAQ Global Market will require Axonyx to have, among other things, a $5.00 per share minimum bid price upon the closing of the merger. Therefore, the reverse stock split may be necessary in order to consummate the merger.

Additionally, Axonyx's board of directors believes that achieving a listing on the NASDAQ Global Market may provide a broader market for Axonyx's common stock and facilitate the use of Axonyx's common stock in financing and other transactions. Axonyx's board of directors unanimously approved the reverse stock split partly as a means of maintaining the share price of Axonyx's common stock following the merger above $5.00 per share.

One of the effects of the reverse stock split will be to effectively increase the proportion of authorized shares which are unissued relative to those which are issued. This could result in the combined company's management being able to issue more shares without further stockholder approval. For example, if Axonyx effects the reverse stock split using a 5:1 ratio, its authorized but unissued shares immediately prior to the closing of the merger would be approximately 136,816,000 compared to shares issued of approximately 13,184,000. If Axonyx effects the reverse stock split using a 10:1 ratio, its authorized but unissued shares immediately prior to the closing of the merger would be approximately 143,408,000 compared to shares issued of approximately 6,592,000. Axonyx currently has no plans to issue shares, other than in connection with the merger, and to satisfy obligations under Axonyx's warrants and employee stock options from time to time as these warrants and options are exercised. The reverse stock split will not affect the number of authorized shares of Axonyx common stock which will continue to be 150,000,000.

Potential Increased Investor Interest

On August 22, 2006, Axonyx's common stock closed at $0.87 per share. Axonyx's common stock may not appeal to brokerage firms that are reluctant to recommend lower priced securities to their

clients. Investors may also be dissuaded from purchasing lower priced stocks because the brokerage commissions, as a percentage of the total transaction, tend to be higher for such stocks. Moreover, the analysts at many brokerage firms do not monitor the trading activity or otherwise provide coverage of lower priced stocks. Also, the Axonyx board of directors believes that most investment funds are reluctant to invest in lower priced stocks.

There are risks associated with the reverse stock split, including that the reverse stock split may not result in an increase in the per share price of Axonyx common stock.

Axonyx cannot predict whether the reverse stock split will increase the market price for Axonyx common stock. The history of similar stock split combinations for companies in like circumstances is varied. There is no assurance that:

- the market price per share of Axonyx's common stock after the reverse stock split will rise in proportion to the reduction in the number of shares of Axonyx's common stock outstanding before the reverse stock split;
- the reverse stock split will result in a per share price that will attract brokers and investors who do not trade in lower priced stocks;
- the reverse stock split will result in a per share price that will increase Axonyx's ability to attract and retain employees; or
- the market price per share will either exceed or remain in excess of the $1.00 minimum bid price as required by NASDAQ for continued listing, or that Axonyx will otherwise meet the requirements of NASDAQ for inclusion for trading on the NASDAQ Global Market.

The market price of Axonyx common stock will also be based on Axonyx's performance and other factors, some of which are unrelated to the number of shares outstanding. If the reverse stock split is effected and the market price of Axonyx common stock declines, the percentage decline as an absolute number and as a percentage of Axonyx's overall market capitalization may be greater than would occur in the absence of a reverse stock split. Furthermore, the liquidity of Axonyx common stock could be adversely affected by the reduced number of shares that would be outstanding after the reverse stock split.

Principal Effects of the Reverse Stock Split

The amendment to Axonyx's articles of incorporation effecting the reverse stock split is set forth in *Annex E* to this joint proxy statement/prospectus. The attached amendment also reflects the change of Axonyx's corporate name as described in Axonyx Proposal No. 3.

The reverse stock split will be effected simultaneously for all outstanding shares of Axonyx common stock. The reverse stock split will affect all of Axonyx's stockholders uniformly and will not affect any stockholder's percentage ownership interests in Axonyx, except to the extent that the reverse stock split results in any of Axonyx's stockholders owning a fractional share. Common stock issued pursuant to the reverse stock split will remain fully paid and nonassessable. The reverse stock split will not affect Axonyx's continuing to be subject to the periodic reporting requirements of the Exchange Act.

Procedure for Effecting Reverse Stock Split and Exchange of Stock Certificates

If Axonyx's stockholders approve the amendment to Axonyx's articles of incorporation effecting the reverse stock split, and if Axonyx's board of directors still believes that a reverse stock split is in the best interests of Axonyx and its stockholders, the Axonyx board will determine the ratio of the reverse stock split to be implemented and publicly announce such ratio. Axonyx will file the certificate of amendment with the Secretary of State of the State of Nevada at such time as Axonyx's board of

directors has determined to be the appropriate split effective time. The Axonyx board of directors may delay effecting the reverse stock split without resoliciting stockholder approval. Beginning at the split effective time, each certificate representing pre-split shares will be deemed for all corporate purposes to evidence ownership of post-split shares.

As soon as practicable after the split effective time, stockholders will be notified that the reverse stock split, reincorporation and/or corporate name change have been effected. Axonyx expects that Axonyx's transfer agent will act as exchange agent for purposes of implementing the exchange of stock certificates. Holders of pre-split shares will be asked to surrender to the exchange agent certificates representing pre-split shares in exchange for certificates representing post-split shares in accordance with the procedures to be set forth in a letter of transmittal to be sent by Axonyx. In the event that Axonyx Proposal Nos. 3 and 4 are approved by Axonyx stockholders and the reincorporation is effected by Axonyx in connection with the reverse stock split and the merger, the certificates reflecting the post-split shares will also reflect the change of Axonyx's corporate name to "TorreyPines Therapeutics, Inc." and will reflect that the company is incorporated in Delaware. No new certificates will be issued to a stockholder until such stockholder has surrendered such stockholder's outstanding certificate(s) together with the properly completed and executed letter of transmittal to the exchange agent. Any pre-split shares submitted for transfer, whether pursuant to a sale or other disposition, or otherwise, will automatically be exchanged for post-split shares. **Stockholders should not destroy any stock certificate(s) and should not submit any certificate(s) unless and until requested to do so.**

Fractional Shares

No fractional shares will be issued in connection with the reverse stock split. Stockholders of record who otherwise would be entitled to receive fractional shares because they hold a number of pre-split shares not evenly divisible by the number of pre-split shares for which each post-split share is to be reclassified, will be entitled, upon surrender to the exchange agent of certificates representing such shares, to a cash payment in lieu thereof at a price equal to the fraction to which the stockholder would otherwise be entitled multiplied by the closing price of the common stock on the NASDAQ Capital Market on the date immediately preceding the split effective time. The ownership of a fractional interest will not give the holder thereof any voting, dividend, or other rights except to receive payment therefor as described herein.

By approving the certificate of amendment to Axonyx's articles of incorporation effecting the reverse stock split, stockholders will be approving the combination of any whole number of issued shares of common stock between and including 5 and 10 shares into one share.

Stockholders should be aware that, under the escheat laws of the various jurisdictions where stockholders reside, where Axonyx is domiciled, and where the funds will be deposited, sums due for fractional interests that are not timely claimed after the effective date of the split may be required to be paid to the designated agent for each such jurisdiction, unless correspondence has been received by Axonyx or the exchange agent concerning ownership of such funds within the time permitted in such jurisdiction. Thereafter, stockholders otherwise entitled to receive such funds will have to seek to obtain them directly from the state to which they were paid.

Accounting Matters

The reverse stock split will not affect the stockholders' equity on Axonyx's balance sheet. However, because the par value of Axonyx's common stock will remain unchanged on the effective date of the split, the components that make up the common stock capital account will change by offsetting amounts. Depending on the size of the reverse stock split the board of directors decides to implement, the stated capital component will be reduced to an amount between $10,608 and $5,304 from its present amount, and the additional paid-in capital component will be increased with the amount by

which the stated capital is reduced. The per share net income or loss and net book value of Axonyx will be increased because there will be fewer shares of Axonyx's common stock outstanding. Prior periods' per share amounts will be restated to reflect the reverse stock split.

Potential Anti-Takeover Effect

Although the increased proportion of unissued authorized shares to issued shares could, under certain circumstances, have an anti-takeover effect, for example, by permitting issuances that would dilute the stock ownership of a person seeking to effect a change in the composition of Axonyx's board of directors or contemplating a tender offer or other transaction for the combination of Axonyx with another company, the reverse stock split proposal is not being proposed in response to any effort of which Axonyx is aware to accumulate shares of Axonyx common stock or obtain control of Axonyx, other than in connection with the merger with TorreyPines, nor is it part of a plan by management to recommend a series of similar amendments to Axonyx's board of directors and stockholders. Other than the proposals being submitted to Axonyx's stockholders for their consideration at the Axonyx annual meeting, Axonyx's board of directors does not currently contemplate recommending the adoption of any other actions that could be construed to affect the ability of third parties to take over or change control of Axonyx.

Dissenters' Rights

Any holder of record of shares of Axonyx common stock who would receive in connection with the reverse stock split cash in lieu of any fractional share of Axonyx common stock to which such holder would otherwise be entitled has the right under Nevada law to dissent and instead obtain payment of the fair value of such fractional share. The rights of dissenting stockholders in connection with a reverse stock split are enumerated in Section 78.2055(4) and Sections 92A.300 through 92A.500, inclusive, of the NRS.

The following discussion is not a complete statement of the law pertaining to dissenters' rights under NRS Sections 78.2055(4) and Sections 92A.300 - 92A.500 and is qualified in its entirety by the full text of NRS Sections 78.2055(4) and Sections 92A.300 - 92A.500, which is attached to this proxy statement as *Annex D*. The following summary does not constitute any legal or other advice nor does it constitute a recommendation that stockholders exercise their dissenters' rights under NRS Sections 78.2055(4) and Sections 92A.300 - 92A.500. All references in NRS Sections 78.2055(4) and Sections 92A.300 - 92A.500 and in this summary to a "stockholder" or "holders of shares of Axonyx common stock" are to the record holder or holders of the shares of Axonyx common stock entitled to vote as to which dissenters' rights are asserted. A person having a beneficial interest in shares of Axonyx common stock held of record in the name of another person, such as a broker, fiduciary, depositary or other nominee, must act promptly to cause the record holder to follow the steps summarized below properly and in a timely manner to perfect dissenters' rights.

To assert dissenters' rights, stockholders must satisfy all of the following conditions in NRS Section 92A.420 and 92A.440:

Before the vote on the reverse stock split occurs at the annual meeting, each stockholder who wishes to assert dissenters' rights must give written notice to Axonyx before the vote is taken of the stockholder's intent to demand payment for the fair value of any fractional share of Axonyx common stock to which such stockholder would be entitled. The stockholder shall not vote or cause or permit to be voted his or her shares in favor of the proposed reverse stock split. Neither voting against, abstaining from voting, or failing to vote on the reverse stock split will constitute notice of intent to demand payment or demand for payment of fair value within the meaning of NRS Section 92A.420.

A dissenting stockholder may NOT vote for approval of the reverse stock split. If a stockholder returns a signed proxy but does not specify in the proxy a vote against the reverse stock split or an instruction to abstain, the proxy will be voted FOR the reverse stock split, which will have the effect of waiving the rights of that stockholder to receive payment of the fair value of any fractional share, and upon the completion of the reverse stock split such stockholder will instead receive in lieu of such fractional share the amount of cash to which the stockholder would have received if the stockholder would have voted FOR the reverse stock split.

Abstaining from voting or voting against the reverse stock split will NOT constitute a waiver of a stockholder's rights. After the vote is taken at the annual meeting, if the reverse stock split is approved, no later than 10 days after the reverse stock split takes place, a written dissenters' notice and form, accompanied by a copy of NRS Sections 92A.300-92A.500 inclusive, will be sent to each stockholder who has given the written notice described above and did not vote in favor of the reverse stock split. The dissenters' notice will state the results of the vote on the reverse stock split, where the payment demand must be sent, and where and when share certificates, if any, must be deposited. It will set a date, not fewer than 30 nor more than 60 days after delivery of the notice, by which the payment demand must be received from the dissenting stockholder. The notice will include a form for demanding payment that will require the stockholder asserting dissenters' rights to certify whether or not the stockholder acquired beneficial ownership of the shares before June 8, 2006, the date of the first announcement to the stockholders and the media of the terms of the proposed reverse stock split and that the stockholder did not vote in favor of the transaction. The notice will also inform holders of uncertificated shares to what extent transfer of the uncertificated shares will be restricted after the payment demand is received. Please note that shares acquired after June 8, 2006, referred to in this section as after-acquired shares, may be subject to different treatment in accordance with NRS Section 92A.470 than shares acquired before that date.

A stockholder who receives a dissenters' notice must comply with the terms of the notice. A stockholder asserting dissenters' rights who does so by demanding payment, depositing his certificates in accordance with the terms of the notice and certifying that beneficial ownership was acquired before June 8, 2006 will retain all other rights of a stockholder.

Dissenters' rights under NRS Section 92A.400 may be asserted either by a beneficial stockholder or a stockholder of record. A record stockholder may assert dissenters' rights as to fewer than every share registered in his name only if he objects for all shares beneficially owned by any one person and notifies Axonyx in writing of the name and address of each person on whose behalf he or she asserts dissenters' rights. A beneficial stockholder may assert dissenters' rights as to shares held on his behalf only if he submits to Axonyx the stockholder of record's written consent before or at the time he asserts dissenters' rights and he does so for all shares that he beneficially owns or over which he has the power to direct the vote.

After the reverse stock split takes place, or within 30 days after receipt of a payment demand, Axonyx will pay in cash to each stockholder who complied with the terms of the dissenters' notice the amount Axonyx estimates to be the fair value of the fractional share to which such stockholder would have otherwise been entitled, plus interest. The payment will be accompanied by Axonyx's balance sheet as of the end of a fiscal year ending not more than 16 months before the date of payment, an income statement for that year, a statement of changes in stockholder's equity and the latest available interim financial statements; a statement of Axonyx's estimate of the fair value of the fractional share; an explanation of how the interest was calculated; and a statement of the dissenter's right to demand payment under NRS Sections 78.2055(4) and Sections 92A.300-92A.500. Within 30 days of payment or offered payment, if a dissenting stockholder believes that the amount paid is less than the fair value of the fractional share or that the interest due is incorrectly calculated, the stockholder may notify Axonyx in writing of his own estimate of the fair value of the fractional share and interest due. If this kind of claim is made by a stockholder, and it cannot be settled, Axonyx is required to petition the court to

determine the fair value of the fractional share and accrued interest within 60 days after receiving the payment demand.

The costs and expenses of a court proceeding will be determined by the court and generally will be assessed against Axonyx, but these costs and expenses may be assessed as the court deems equitable against all or some of the stockholders demanding appraisal who are parties to the proceeding if the court finds the action of the stockholders in failing to accept Axonyx's was arbitrary, vexatious or not in good faith. These expenses may include the fees and expenses of counsel and experts employed by the parties.

All written notices of intent to demand payment of fair value should be sent or delivered to, Investor Relations, Axonyx Inc., 500 Seventh Avenue, 10th Floor, New York, New York 10018.

Material United States Federal Income Tax Consequences of the Reverse Stock Split

The following discussion summarizes the material United States federal income tax consequences of the reverse stock split that are expected to apply generally to holders of Axonyx common stock. This summary is based upon current provisions of the Code, existing Treasury Regulations and current administrative rulings and court decisions, all of which are subject to change and to differing interpretations, possibly with retroactive effect.

This summary only applies to a holder of Axonyx common that is a "U.S. person," defined to include:

- a citizen or resident of the United States;
- a corporation created or organized in or under the laws of the United States, or any political subdivision thereof (including the District of Columbia);
- an estate the income of which is subject to United States federal income taxation regardless of its source;
- a trust if either:
  - a court within the United States is able to exercise primary supervision over the administration of such trust and one or more United States persons have the authority to control all substantial decisions of such trust, or
  - the trust has a valid election in effect to be treated as a United States person for United States federal income tax purposes; and
- any other person or entity that is treated for United States federal income tax purposes as if it were one of the foregoing.

Any holder of Axonyx common stock other than a "U.S. person" as so defined is, for purposes of this discussion, a "non-U.S. person." If a partnership holds Axonyx common stock, the tax treatment of a partner will generally depend on the status of the partner and the activities of the partnership. If you are a partner of a partnership holding Axonyx common stock, you should consult your tax advisor.

This summary assumes that holders of Axonyx common stock hold their shares of pre-split and post-split Axonyx common stock as capital assets within the meaning of Section 1221 of the Code (generally, property held for investment). No attempt has been made to comment on all United States federal income tax consequences of the reverse stock split that may be relevant to particular holders, including holders:

- who are subject to special treatment under United States federal income tax rules such as dealers in securities, financial institutions, non-U.S. persons, mutual funds, regulated investment companies, real estate investment trusts, insurance companies, or tax-exempt entities;

who are subject to the alternative minimum tax provisions of the Code;

who acquired their shares in connection with stock option or stock purchase plans or in other compensatory transactions;

who hold their shares as qualified small business stock within the meaning of Section 1202 of the Code; or

who hold their shares as part of an integrated investment such as a hedge or as part of a hedging, straddle or other risk reduction strategy.

In addition, the following discussion does not address the tax consequences of the reverse stock split under state, local and foreign tax laws. For example, the state and local tax consequences of the reverse stock split may vary significantly as to each stockholder, depending upon the state in which such stockholder resides. Furthermore, the following discussion does not address any of the tax consequences of transactions effectuated before, after or at the same time as the reverse stock split, whether or not they are in connection with the reverse stock split. No ruling from the Internal Revenue Service, or IRS, has been or will be requested in connection with the reverse stock split.

Accordingly, holders of Axonyx common stock are advised and expected to consult their own tax advisers regarding the federal income tax consequences of the reverse stock split in light of their personal circumstances and the consequences of the reverse stock split under state, local and foreign tax laws.

Stockholders Who Receive Post-Split Shares

Holders of Axonyx common stock will not recognize any gain or loss or dividend income upon the exchange of pre-split shares for post-split shares pursuant to the reverse stock split, other than with respect to cash received in lieu of fractional shares of Axonyx common stock.

The aggregate tax basis of the post-split shares of Axonyx common stock received in the reverse stock split, including any fraction of a post-split share deemed to have been received, will be equal to the aggregate tax basis of the pre-split shares surrendered in exchange for such post-split shares, decreased by the amount of any tax basis allocable to any fractional share interest in Axonyx common stock for which cash is received. The holding period of the post-split shares will include the holding period of the pre-split shares surrendered in exchange therefor.

Generally, cash payments received by holders of Axonyx common stock upon redemption of their fractional shares will be recognized as gain or loss equal to the difference, if any, between such stockholder's basis in the fractional share and the amount of cash received. Gain, if any, realized by such stockholders on the transaction will be recognized in an amount not in excess of the cash received. Recognized gain will be taxed either as a dividend to the extent of the stockholder's ratable share of Axonyx's earnings and profits, if any (as that term is used in Section 316 of Code) or as capital gain. The determination whether the receipt of cash has the effect of the distribution of a dividend is made by applying the rules under Section 302 of the Code (see " Stockholders Who Receive Only Cash" below).

In the case of capital gain or loss recognized in respect of a fractional share, such gain or loss will be capital gain or loss, and generally will constitute long-term capital gain or loss if the stockholder's holding period in the shares surrendered is more than one year as of the reverse stock split. Net capital gain (*i.e.*, the excess of net long-term capital gain over net short-term capital loss) will be subject to tax at reduced rates for non-corporate stockholders who receive cash. The deductibility of capital losses is subject to various limitations for corporate and non-corporate holders.

For purposes of the above discussion of the bases and holding periods for shares of Axonyx common stock, stockholders who acquired different blocks of Axonyx common stock at different times

for different prices must calculate their gains and losses and holding periods separately for each identifiable block of such stock surrendered in the reverse stock split.

Stockholders Who Receive Only Cash

A holder of Axonyx common stock who receives only cash in the reverse stock split (*i.e.*, a stockholder that owns fewer than the number of shares of pre-split common stock for which one share of Axonyx common stock will be issued in the reverse stock split) will be treated as having such shares redeemed in a taxable transaction governed by Section 302 of the Code and, depending on a stockholder's situation, the transaction will be taxed as either:

A sale or exchange of the redeemed shares, in which case the stockholder will recognize gain or loss equal to the difference between the cash payment and the stockholder's tax basis for the redeemed shares; or

A cash distribution which is treated: (a) first, as a taxable dividend to the extent of allocable earnings and profits, if any; (b) second, as a tax-free return of capital to the extent of the stockholder's tax basis in the redeemed shares; and (c) finally, as gain from the sale or exchange of the redeemed shares.

Amounts treated as gain or loss from the sale or exchange of redeemed shares will be capital gain or loss. Amounts treated as a taxable dividend are ordinary income to the recipient; however, a corporate taxpayer (other than an S corporation) may be allowed a dividends received deduction subject to applicable limitations and other special rules.

Under Section 302 of the Code, a redemption of Axonyx common shares from a stockholder as part of the reverse stock split will be treated as a sale or exchange of the redeemed shares if:

the reverse stock split results in a "complete termination" of the stockholder's interest in the Axonyx;

the receipt of cash is "substantially disproportionate" with respect to the stockholder; or

the receipt of cash is "not essentially equivalent to a dividend" with respect to the stockholder.

These three tests, referred to as the Section 302 Tests, are applied by taking into account not only shares that a stockholder actually owns, but also shares that the stockholder constructively owns pursuant to Section 318 of the Code. Under the constructive ownership rules of Section 318 of the Code, a stockholder is deemed to constructively own shares owned by certain related individuals and entities in which the stockholder has an interest in addition to shares directly owned by the stockholder. For example, an individual stockholder is considered to own shares owned by or for his or her spouse and his or her children, grandchildren and parents ("family attribution"). In addition, a stockholder is considered to own a proportionate number of shares owned by estates or certain trusts in which the stockholder has a beneficial interest, by partnerships in which the stockholder is a partner, and by corporations in which 50% or more in value of the stock is owned directly or indirectly by or for such stockholder. Similarly, shares directly or indirectly owned by beneficiaries of estates of certain trusts, by partners of partnerships and, under certain circumstances, by stockholders of corporations may be considered owned by these entities ("entity attribution"). A stockholder is also deemed to own shares which the stockholder has the right to acquire by exercise of an option or by conversion or exchange of a security. Constructively owned shares may be reattributed to another taxpayer. For example, shares attributed to one taxpayer as a result of entity attribution may be attributed from that taxpayer to another taxpayer through family attribution.

A holder of Axonyx common stock who receives only cash in the reverse stock split (*i.e.*, a stockholder that owns fewer than the number of shares of pre-split common stock for which one share of Axonyx common stock will be issued in the reverse stock split) and does not constructively own any

shares of post-split common stock after the reverse stock split will have his or her interest in Axonyx completely terminated by the reverse stock split and will therefore receive sale or exchange treatment on his or her pre-split common stock. That is, such a stockholder will recognize gain or loss equal to the difference between the cash payment and the stockholder's tax basis for his or her Axonyx (pre-split) common stock.

A holder of Axonyx common stock who receives only cash in the reverse stock split and would only constructively own shares of post-split common stock after the reverse stock split as a result of family attribution may be able to avoid constructive ownership of the shares of post-split common stock by waiving family attribution and, thus, be treated as having had his or her interest in Axonyx completely terminated by the reverse stock split. Among other things, waiving family attribution requires (a) that the stockholder have no interest in Axonyx (including as an officer, director, employee or stockholder) other than an interest as a creditor and does not acquire such an interest during the ten-year period immediately following the reverse stock split other than stock acquired by bequest or inheritance and (b) including an election to waive family attribution in the stockholder's tax return for the year in which the reverse stock split occurs.

A holder of Axonyx common stock who receives cash in the reverse stock split and immediately after the reverse stock split actually or constructively owns shares of post-split common stock must compare (a) his or her percentage ownership immediately before the reverse stock split (*i.e.*, the number of voting shares actually or constructively owned by him or her immediately before the reverse stock split divided by the number of voting shares outstanding immediately before the reverse stock split) with (b) his or her percentage ownership immediately after the reverse stock split (*i.e.*, the number of voting shares actually or constructively owned by him or her immediately after the reverse stock split divided by the number of voting shares outstanding immediately after the reverse stock split).

If the stockholder's post-reverse stock split ownership percentage is less than 80% of the stockholder's pre-reverse stock split ownership percentage, the receipt of cash is "substantially disproportionate" with respect to the stockholder, and the stockholder will, therefore, receive sale or exchange treatment on the portion of his or her shares of pre-split common stock exchanged for cash in lieu of fractional shares.

If the receipt of cash by a holder of Axonyx common stock fails to constitute an "exchange" under the "substantially disproportionate" test or the "complete termination" test, the receipt of cash may constitute an "exchange" under the "not essentially equivalent to a dividend" test. The receipt of cash by a stockholder will be "not essentially equivalent to a dividend" if the transaction results in a "meaningful reduction" of the stockholder's proportionate interest in Axonyx. If (a) the stockholder exercises no control over the affairs of Axonyx (*e.g.*, is not an officer, director or high ranking employee), (b) the stockholder's relative stock interest in Axonyx is minimal, and (c) the stockholder's post-reverse stock split ownership percentage is less than the stockholder's pre-reverse stock split ownership percentage, the receipt of cash will generally not be essentially equivalent to a dividend with respect to the stockholder and the stockholder will, therefore, receive sale or exchange treatment on the portion of his or her shares of pre-split common stock exchanged for cash in lieu of fractional shares.

In all other cases, cash in lieu of fractional shares received by a holder of Axonyx common stock who immediately after the reverse stock split actually or constructively owns shares of post-split common stock will be treated: (a) first, as a taxable dividend to the extent of allocable earnings and profits, if any; (b) second as a tax-free return of capital to the extent of the stockholder's tax basis in the redeemed shares; and (c) finally, as gain from the sale or exchange of the redeemed shares.

Backup Withholding

Axonyx is required to furnish to the record holders of Axonyx common stock, other than corporations and other exempt holders, and to the IRS, information with respect to dividends paid on the Axonyx common stock.

Certain non-corporate holders of Axonyx common stock may be subject to backup withholding with respect to proceeds received from the disposition of shares of Axonyx common stock. Backup withholding will not apply, however, to a holder of Axonyx common stock who (1) furnishes a correct taxpayer identification number and certifies that the holder of Axonyx common stock is not subject to backup withholding on IRS Form W-9 or a substantially similar form, (2) provides a certification of foreign status on an appropriate Form W-8 or successor form or (3) is otherwise exempt from backup withholding. If a holder of Axonyx common stock provides an incorrect taxpayer identification number on IRS Form W-9 or a substantially similar form, such stockholder may be subject to penalties imposed by the IRS. Amounts withheld, if any, are generally not an additional tax and may be refunded or credited against the federal income tax liability of the holders of Axonyx common stock, provided that the holder of Axonyx common stock timely furnishes the required information to the IRS.

THE PRECEDING DISCUSSION IS INTENDED ONLY AS A SUMMARY OF CERTAIN UNITED STATES FEDERAL INCOME TAX CONSEQUENCES OF THE REVERSE STOCK SPLIT AND DOES NOT PURPORT TO BE A COMPLETE ANALYSIS OR DISCUSSION OF ALL OF THE REVERSE STOCK SPLIT'S POTENTIAL TAX EFFECTS. HOLDERS OF AXONYX COMMON STOCK ARE URGED TO CONSULT THEIR OWN TAX ADVISORS AS TO THE SPECIFIC TAX CONSEQUENCES TO THEM OF THE REVERSE STOCK SPLIT AND THE APPLICABILITY AND EFFECT OF FEDERAL, STATE, LOCAL AND OTHER APPLICABLE TAX LAWS.

Vote Required; Recommendation of Board of Directors

The affirmative vote of holders of a majority of the shares of Axonyx common stock having voting power outstanding on the record date for the Axonyx annual meeting is required to approve the certificate of amendment to Axonyx's articles of incorporation effecting a reverse stock split of Axonyx common stock, at a ratio within the range of 5:1 to 10:1, and at such ratio to be determined by the board of directors of Axonyx.

THE AXONYX BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT AXONYX STOCKHOLDERS VOTE "FOR" AXONYX PROPOSAL NO. 2 TO AMEND AXONYX'S ARTICLES OF INCORPORATION EFFECTING THE REVERSE STOCK SPLIT.

Axonyx Proposal No. 3: Approval of Name Change

At the Axonyx annual meeting, holders of Axonyx stock will be asked to approve the amendment to Axonyx's articles of incorporation to change the name of the corporation from "Axonyx Inc." to "TorreyPines Therapeutics, Inc." immediately prior to the consummation of the merger. The primary reason for the corporate name change is that management believes this will allow for brand recognition of TorreyPines' product candidates and product candidate pipeline following the consummation of the merger. Axonyx's management believes that the current name will no longer accurately reflect the business of the combined company and the mission of the combined company subsequent to the consummation of the merger.

Insofar as Axonyx's business will not include TorreyPines' business until the merger has been completed, the proposed name change and the amendment of Axonyx's articles of incorporation, even if approved by the Axonyx stockholders at the Axonyx annual meeting, will only be filed with the office of the Secretary of State of the State of Nevada, and will therefore only become effective, if the merger is consummated.

The affirmative vote of holders of a majority of the shares of Axonyx common stock having voting power outstanding on the record date for the Axonyx annual meeting is required to approve the amendment to Axonyx's articles of incorporation to change the name "Axonyx Inc." to "TorreyPines Therapeutics, Inc."

THE AXONYX BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT AXONYX STOCKHOLDERS VOTE "FOR" AXONYX PROPOSAL NO. 3 TO APPROVE THE NAME CHANGE.

Axonyx Proposal No. 4: Approval of Change of Axonyx's State of Incorporation from Nevada to Delaware

References in this Section to "Axonyx" refer to Axonyx Inc. and include references to Axonyx both as a Nevada corporation before reincorporation in Delaware and to Axonyx as a Delaware corporation following reincorporation, notwithstanding the fact that, if Axonyx Proposal No. 3 is adopted, Axonyx will change its name immediately prior to the reincorporation to "TorreyPines Therapeutics, Inc."

Summary

The principal effects of the reincorporation will be that:

1. The affairs of Axonyx will cease to be governed by Nevada corporation laws and will become subject to Delaware corporation laws.

2. The resulting Delaware corporation will be the same entity as Axonyx and will continue with all of the rights, privileges and powers of Axonyx, will possess all of the properties of Axonyx, will continue with all of the debts, liabilities and obligations of Axonyx and will continue with the same officers and directors of Axonyx immediately prior to the reincorporation, as more fully described below.

General

At the Axonyx annual meeting, Axonyx stockholders will be asked to approve the reincorporation of Axonyx from the State of Nevada to the State of Delaware. This proposal is referred to as the reincorporation proposal. Axonyx would effect the reincorporation by entering into a plan of conversion, a draft copy of which is attached hereto as *Annex F*. At the effective time of the reincorporation, which would occur only in connection with the completion of the merger, Axonyx would file with the Nevada Secretary of State articles of conversion and would also file with the Delaware Secretary of State a certificate of incorporation that would govern Axonyx as a Delaware corporation, which is referred to here as the Delaware certificate of incorporation, a draft copy of which is attached as *Annex G*. In addition, the board of directors of Axonyx would adopt bylaws for the resulting Delaware corporation, which are referred to here as the Delaware bylaws, a draft copy of which is attached as *Annex H*. Apart from being governed by the Delaware certificate of incorporation, the Delaware bylaws and the DGCL, for all other purposes, Axonyx as a Delaware corporation, or Axonyx-Delaware, will be the same entity as Axonyx as a Nevada corporation, or Axonyx-Nevada, immediately prior to the reincorporation: Axonyx-Delaware will continue with all of the rights, privileges and powers of Axonyx-Nevada, it will possess all of the properties of Axonyx-Nevada, it will continue with all of the debts, liabilities and obligations of Axonyx-Nevada and it will continue with the same officers and directors of Axonyx-Nevada immediately prior to the merger, as more fully described below. The completion of the reincorporation is a condition to TorreyPines' obligation to complete the merger.

Reasons for the Reincorporation

Delaware is a nationally recognized leader in adopting and implementing comprehensive and flexible corporate laws. The DGCL is frequently revised and updated to accommodate changing legal and business needs and is more comprehensive, widely used and interpreted than other state corporate laws, including the NRS.

In addition, Delaware has established a specialized court, the Court of Chancery, that has exclusive jurisdiction over matters relating to the DGCL. In the Court of Chancery, corporate cases are heard by judges, without juries, who have many years of experience with corporate issues. Traditionally, this has meant that the Delaware courts are able in most cases to process corporate litigation relatively quickly

and effectively. By comparison, many states, including Nevada, do not have a specialized judiciary for matters relating to corporate issues.

Delaware courts have developed considerable expertise in dealing with corporate legal issues and produced a substantial body of case law construing the DGCL, with multiple cases concerning areas that no Nevada court has considered. Because the judicial system is based largely on legal precedents, the abundance of Delaware case law should serve to enhance the relative clarity and predictability of many areas of corporate law, which should offer added advantages to Axonyx by allowing the Axonyx board of directors and management to make corporate decisions and take corporate actions with greater assurance as to the validity and consequences of those decisions and actions.

Reincorporation from Nevada to Delaware may also make it easier to attract future candidates willing to serve on the Axonyx board of directors, because many such candidates are already familiar with Delaware corporate law, including provisions relating to director indemnification, from their past business experience.

Based on publicly available data, over half of publicly-traded corporations in the United States and 60% of the Fortune 500 companies are incorporated in Delaware.

Changes as a Result of Reincorporation

If the reincorporation proposal is approved at the Axonyx annual meeting, the reincorporation will effect a change in the legal domicile of Axonyx and other changes of a legal nature, the most significant of which are described below in the section entitled "Comparison of Axonyx Stockholders' Rights Before and After the Reincorporation" below. The reincorporation is not expected to affect any of Axonyx's material contracts with any third parties and Axonyx's rights and obligations under such material contractual arrangements will continue as rights and obligations of Axonyx as a Delaware corporation. While the reincorporation itself will not result in any change in headquarters, business, trading status on the Nasdaq Capital Market, jobs, management, location of any of Axonyx's offices or facilities, number of employees, assets, liabilities or net worth (other than as a result of the costs incident to the reincorporation), or officers and directors of Axonyx, some of these changes will occur as a result of the merger described in the section entitled "The Merger" in this joint proxy statement/prospectus. For example, if Axonyx Proposal Nos. 1 and 3 are approved by Axonyx stockholders and the merger is completed, pursuant to the provisions of the merger agreement the directors and officers of Axonyx are expected to consist of those individuals identified in this joint proxy statement/prospectus rather than the current Axonyx directors and officers, and the name of Axonyx will be changed to "TorreyPines Therapeutics, Inc." In addition, if the reverse stock split (as described in Axonyx Proposal No. 2 above) is approved by Axonyx stockholders and if the Axonyx board of directors decides to effect the reverse stock split in connection with the merger, at the effective time of the reverse stock split the outstanding shares of common stock will be converted into a lesser number of shares of Axonyx common stock as described in Axonyx Proposal No. 2. However, these respective changes will occur as a result of the approval and implementation of Axonyx Proposal Nos. 1, 2 and 3 and not as a result of the approval of the reincorporation proposal.

Mechanism for Reincorporation into Delaware

The process for reincorporating Axonyx from Nevada to Delaware calls for the articles of conversion to be filed with the Nevada Secretary of State and for the Delaware certificate of incorporation and a certificate of conversion to be filed with the Delaware Secretary of State at approximately the time desired for the reincorporation to take effect.

The Plan of Conversion

The reincorporation will be effected pursuant to the plan of conversion to be entered into by Axonyx. The plan of conversion provides that Axonyx will convert into a Delaware corporation, with all of the assets, rights, privileges and powers of Axonyx, and all property owned by Axonyx, all debts due to Axonyx, as well as all other causes of action belonging to Axonyx immediately prior to the conversion, remaining vested in Axonyx-Delaware following the conversion. Axonyx-Delaware will remain as the same entity following the conversion. The directors and officers of Axonyx immediately prior to the conversion will be the directors and officers of Axonyx-Delaware and the subsidiaries of Axonyx will be the subsidiaries of Axonyx-Delaware.

At the effective time of the reincorporation each then outstanding share of Axonyx common stock will automatically be converted into one share of common stock of the resulting Delaware corporation. If the reverse stock split (as described in Axonyx Proposal No. 2 above) is approved by Axonyx stockholders and if the Axonyx board of directors decides to effect the reverse stock split in connection with the merger and the reincorporation, then prior to the effective time of the reincorporation the outstanding shares of Axonyx common stock will already have been converted into a lesser number of shares of Axonyx common stock as a Nevada corporation calculated in accordance with the selected ratio of between 5:1 and 10:1.

As soon as practicable after the reincorporation, stockholders will be notified that the reincorporation, reverse stock split and/or corporate name change has been effected. Axonyx expects that Axonyx's transfer agent will act as exchange agent for purposes of implementing the exchange of stock certificates. Holders of pre-reincorporation shares will be asked to surrender to the exchange agent certificates representing pre-reincorporation shares in exchange for certificates representing post-reincorporation shares in accordance with the procedures to be set forth in a letter of transmittal to be sent by Axonyx. In the event that Axonyx Proposal Nos. 2 and 3 are approved by Axonyx stockholders and the reverse stock split is effected by Axonyx in connection with the reincorporation and the merger, the certificates reflecting post-reincorporation shares will also reflect the change of Axonyx's corporate name to "TorreyPines Therapeutics, Inc." and will represent a lesser number of shares of common stock pursuant to the reverse stock split. No new certificates will be issued to a stockholder until such stockholder has surrendered such stockholder's outstanding certificate(s) together with the properly completed and executed letter of transmittal to the exchange agent. Any pre-reincorporation shares submitted for transfer, whether pursuant to a sale or other disposition, or otherwise, will automatically be exchanged for post-reincorporation shares. **Axonyx stockholders should not destroy any stock certificate(s) and should not submit any certificate(s) unless and until requested to do so.**

Pursuant to the reincorporation, Axonyx-Delaware will assume all of Axonyx's obligations under existing options to purchase Axonyx common stock, including all options under the Axonyx 1998 Stock Option Plan and the Axonyx 2000 Stock Option Plan. Each outstanding option to purchase shares of Axonyx common stock will be converted into an option to purchase a number of shares of the resulting Delaware corporation's common stock on the same terms and conditions as in effect immediately prior to the reincorporation. The exact number of shares of the resulting Delaware corporation's common stock an optionholder is entitled to purchase depends on whether the stockholders approve the reverse stock split and whether the Axonyx board of directors decides to effect the reverse stock split in connection with the reincorporation and the merger. If the reverse stock split is implemented, the number of shares subject to each outstanding option to purchase Axonyx common stock will be adjusted to a lesser number of shares and the exercise price will be increased, both adjustments to be made in accordance with the Code and the selected ratio so that the economic value of the options at the time of the reverse stock split is unchanged. If the reverse stock split is implemented, the number of shares of common stock authorized for issuance under each option to purchase Axonyx common

stock will be adjusted to a lower number of shares, the adjustment to be made in accordance with the selected ratio.

Similarly, each outstanding warrant to purchase shares of Axonyx common stock will be converted into a warrant to purchase a number of shares of Axonyx-Delaware's common stock on the same terms and conditions as in effect immediately prior to the reincorporation. The exact number of shares of Axonyx-Delaware that a warrant-holder is entitled to purchase depends on whether the stockholders approve the reverse stock split and whether the Axonyx board of directors decides to effect the reverse stock split in connection with the reincorporation and the merger. If the reverse stock split is implemented, the number of shares subject to each outstanding warrant will be adjusted to a lesser number of shares and the exercise price will be increased, both adjustments to be made in accordance with the selected ratio so that the economic value of the warrants at the time of the reverse stock split is unchanged.

Required Vote for the Reincorporation

A vote in favor of the reincorporation proposal is a vote to approve the plan of conversion and therefore the reincorporation. A vote in favor of the reincorporation proposal is also effectively a vote in favor of the Delaware certificate of incorporation and the Delaware bylaws.

The affirmative vote of holders of a majority of the shares of Axonyx common stock having voting power outstanding on the record date for the Axonyx annual meeting is required to approve the reincorporation proposal.

Effective Time

If the reincorporation proposal is approved, the reincorporation will become effective upon the filing of, and at the date and time specified in (as applicable), the certificate of conversion filed with the Secretary of State of Nevada and the certificate of conversion and the Delaware certificate of incorporation filed with the Secretary of State of Delaware, in each case upon acceptance thereof by the Nevada Secretary of State and the Delaware Secretary of State. If the reincorporation proposal is approved, it is anticipated that the Axonyx board of directors will cause the reincorporation to be effected at approximately the same time as the effective time of the merger and the effective time of the amendment to the Axonyx articles of incorporation described in Axonyx Proposal Nos. 2 and 3. However, the reincorporation may be delayed by the Axonyx board of directors or the plan of conversion may be terminated and abandoned by action of the Axonyx board of directors at any time prior to the effective time of the reincorporation, whether before or after the approval by Axonyx's stockholders, if the Axonyx board of directors determines for any reason that the consummation of the reincorporation should be delayed or would be inadvisable or not in the best interests of Axonyx and its stockholders, as the case may be. However, because completion of the reincorporation is a condition under the merger agreement to TorreyPines' obligation to complete the merger, if the Axonyx board of directors determines not to complete the reincorporation, TorreyPines may elect not to complete the merger.

Effect of Not Obtaining the Required Vote for Approval

If the reincorporation proposal fails to obtain the requisite vote for approval, the reincorporation will not be consummated and Axonyx will continue to be incorporated in Nevada and be subject to Axonyx's existing articles of incorporation and bylaws. Because completion of the reincorporation is a condition under the merger agreement to TorreyPines' obligation to complete the merger, if the reincorporation proposal fails to obtain the requisite vote for approval TorreyPines may elect to terminate the merger agreement and to not complete the merger.

Comparison of Axonyx's Stockholders' Rights Before and After the Reincorporation

Because of differences between the NRS and the DGCL, as well as differences between Axonyx's governing documents before and after the reincorporation, the reincorporation will effect certain changes in the rights of Axonyx's stockholders. Summarized below are the most significant differences between the rights of the stockholders of Axonyx before and after the reincorporation, as a result of the differences among the NRS and the DGCL and the differences between Axonyx's articles of incorporation (the "Nevada articles of incorporation") and the bylaws of Axonyx (the "Nevada bylaws") and the Delaware certificate of incorporation and the Delaware bylaws. The summary below is not an exhaustive list of all differences or a complete description of the differences described, and is qualified in its entirety by reference to the NRS, the DGCL, the Nevada articles of incorporation, the Nevada bylaws, the Delaware certificate of incorporation, and the Delaware bylaws.

Provision	Axonyx (Nevada law)	Axonyx (Delaware law)
	ELECTIONS; VOTING; PROCEDURAL MATTERS	
Classified Board of Directors	Nevada law permits corporations to classify their boards of directors. At least one-fourth of the total number of directors of a Nevada corporation must be elected annually. Axonyx does not have a classified board.	Delaware law permits any Delaware corporation to classify its board of directors into as many as three classes as equally as possible with staggered terms of office. Axonyx will not have a classified board of directors following the reincorporation.
Removal of Directors	Under Nevada law, any one or all of the directors of a corporation may be removed by the holders of not less than two-thirds of the voting power of a corporation's issued and outstanding stock. Nevada does not distinguish between removal of directors with or without cause. The articles of incorporation may require the concurrence of more than two-thirds of the voting power of the issued and outstanding stock entitled to voting power in order to remove one or more directors from office.	Under Delaware law, directors of a corporation without a classified board may be removed with or without cause, by the holders of a majority of shares then entitled to vote in an election of directors. Under the Delaware certificate of incorporation and bylaws, a director may be removed at any time (i) with cause by the affirmative vote of the holders of a majority of the voting power of all then-outstanding shares of capital stock entitled to vote at an election of directors or (ii) without cause by the affirmative vote of the holders of at least $66^{2}/_{3}\%$ of all then-outstanding shares of capital stock of the corporation, entitled to vote generally at an election of directors.

Special Meetings of Stockholders	Nevada law provides that unless otherwise provided in a corporation's articles of incorporation or bylaws, the entire board of directors, any two directors, or the president of the corporation may call a special meeting of the stockholders. Axonyx's bylaws provide that special meetings of the stockholders may be called by the Board of Directors, the Chairman of the Board or the President.	Delaware law permits special meetings of stockholders to be called by the board of directors or by any other person authorized in the certificate of incorporation or bylaws to call a special stockholder meeting. The Delaware bylaws will provide that a special meeting of the stockholders may be called by the chairman of the board of directors, the chief executive officer or by the board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors.
Failure to Hold an Annual Meeting	Nevada law provides that if a corporation fails to elect directors within 18 months after the last election, a Nevada district court may order an election upon the petition of one or more stockholders holding 15 percent of the corporation's voting power.	Delaware law provides that if a corporation fails to hold an annual meeting for the election of directors or there is no written consent to elect directors in lieu of an annual meeting taken, in both cases for a period of 30 days after the date designated for the annual meeting, a director or stockholder of the corporation may apply to the Court of Chancery of the State of Delaware to order an annual meeting for the election of directors.
Cumulative Voting	Unless otherwise provided in the articles of incorporation, directors of a Nevada corporation are elected by a plurality of the votes cast by the shares entitled to vote in the election at a meeting at which a quorum is present. Nevada law permits cumulative voting in the election of directors as long as the articles of incorporation provide for cumulative voting and certain procedures for the exercise of cumulative voting are followed. Axonyx does not have a provision granting cumulative voting rights in the election of its directors in its articles of incorporation or bylaws.	A Delaware corporation may provide for cumulative voting in the corporation's certificate of incorporation. The Delaware certificate of incorporation and bylaws will not have a provision granting cumulative voting rights in the election of its directors.

Vacancies	All vacancies on the board of directors of a Nevada corporation may be filled by a majority of the remaining directors, though less than a quorum, unless the articles of incorporation provide otherwise. Unless otherwise provided in the articles of incorporation, the board may fill the vacancies for the remainder of the term of office of resigning director or directors. Axonyx's articles and bylaws are consistent with Nevada law.	All vacancies on the board of directors of a Delaware corporation may be filled by a majority of the remaining directors, though less than a quorum, unless the certificate of incorporation provide otherwise. Unless otherwise provided in the certificate of incorporation, the board may fill the vacancies for the remainder of the term of office of resigning director or directors. Subject to the rights, if any, of any series of preferred stock to elect directors and to fill vacancies on the board of directors, vacancies on the board of directors may be filled by the affirmative vote of a majority of the remaining directors then in office, even if less than a quorum. Any director so appointed will hold office for the remainder of the full term of the class of directors in which the vacancy occurred. The Delaware certificate of incorporation and bylaws will provide that any vacancy or newly created directorships in the board of directors will be filled only by the affirmative vote of a majority of the directors in office, even though less than a quorum, or by a sole remaining director, unless otherwise determined by resolution of the board of directors, provided however, that whenever the holders of any class or classes of stock or series of stock are entitled to elect directors, vacancies and newly created directorships of such class or classes or series will, unless the board determines that the vacancies or newly created directorships will be filled by stockholders, be filled by a majority of the directors elected by such class or classes or series then in office, or by a sole remaining director so elected. Such elected director will hold office for the remainder of the full term of the director for which the vacancy was created and until such director's successor will have been elected and qualified. A vacancy will be deemed to exist in the case of the death, removal or resignation of any director.

Stockholder Voting Provisions	Under Nevada law, a majority of the voting power, which includes the voting power that is present in person or by proxy, regardless of whether the proxy has authority to vote on all matters, generally constitutes a quorum for the transaction of business at a meeting of stockholders. Generally, action by the stockholders on a matter other than the election of directors is approved if the number of votes cast in favor of the action exceeds the number of votes cast in opposition to the action, unless otherwise provided in Nevada law or the articles of incorporation or bylaws of the corporation. Generally, directors are elected by a plurality of the votes of the shares present in person or represented by proxy at the meeting and entitled to vote on election of directors. Where a separate vote by a class or series or classes or series is required, a majority of the voting power of the class or series that is present or by proxy, regardless of whether the proxy has authority to vote on all matters, generally constitutes a quorum for the transaction of business. Generally, an act by the stockholders of each class or series is approved if a majority of the voting power of a quorum of the class or series votes for the action. Axonyx's articles and bylaws do not change these statutory rules.	Under Delaware law, a majority of the shares entitled to vote, present in person or represented by proxy, generally constitutes a quorum at a meeting of stockholders. Generally, in all matters other than the election of directors, the affirmative vote of the majority of shares present in person or represented by proxy at the meeting and entitled to vote on the subject matter constitutes the act of stockholders. Directors are generally elected by a plurality of the votes of the shares present in person or represented by proxy at the meeting and entitled to vote on the election of directors. Where a separate vote by a class or series or classes or series is required, a majority of the outstanding shares of such class or series or classes or series, present in person or represented by proxy, generally constitutes a quorum entitled to take action with respect to that vote on that matter and, generally, the affirmative vote of the majority of shares of such class or series or classes or series present in person or represented by proxy constitutes the act of such class or series or classes or series.

Stockholder Action by Written Consent	Nevada law provides that, unless the articles of incorporation or bylaws provides otherwise, any action required or permitted to be taken at a meeting of the stockholders may be taken without a meeting if the holders of outstanding stock having at least the minimum number of votes that would be necessary to authorize or take such action at a meeting consents to the action in writing. Axonyx's articles and bylaws do not change this statutory rule.	Delaware law provides that, unless the certificate of incorporation provides otherwise, any action required or permitted to be taken at a meeting of the stockholders may be taken without a meeting if the holders of outstanding stock having at least the minimum number of votes that would be necessary to authorize or take such action at a meeting consents to the action in writing. In addition, Delaware law requires the corporation to give prompt notice of the taking of corporate action without a meeting by less than unanimous written consent to those stockholders who did not consent in writing. The Delaware certificate of incorporation and bylaws will specify that no action will be taken by the stockholders except at an annual or special meeting of the stockholders and that no action will be taken by the stockholders by written consent.
Stockholder Vote for Mergers and Other Corporate Reorganizations	In general, Nevada requires authorization by an absolute majority of outstanding shares entitled to vote, as well as approval by the board of directors, with respect to the terms of a merger or a sale of substantially all of the assets of the corporation. So long as the surviving corporation is organized in Nevada, Nevada law does not generally require a stockholder vote of the surviving corporation in a merger if: (a) the plan of merger does not amend the existing articles of incorporation; (b) each share of stock of the surviving	In general, Delaware requires authorization by an absolute majority of outstanding shares entitled to vote, as well as approval by the board of directors, with respect to the terms of a merger or a sale of substantially all of the assets of the corporation. Delaware law does not generally require a stockholder vote of the surviving corporation in a merger (unless the corporation provides otherwise in its certificate of incorporation) if: (a) the plan of merger does not amend the existing certificate of incorporation; (b) each

	corporation outstanding immediately before the effective date of the merger is an identical outstanding share after the merger; (c) the number of voting shares outstanding immediately after the merger, plus the number of voting shares issued as a result of the merger, either by the conversion of securities issued pursuant to the merger or the exercise of rights and warrants issued pursuant to the merger, will not exceed by more than 20 percent the total number of voting shares of the surviving domestic corporation outstanding immediately before the merger; and (d) the number of participating shares outstanding immediately after the merger, plus the number of participating shares issuable as a result of the merger, either by the conversion of securities issued pursuant to the merger or the exercise of rights and warrants issued pursuant to the merger, will not exceed by more than 20 percent the total number of participating shares outstanding immediately before the merger. Axonyx's articles and bylaws do not change these statutory rules.	share of stock of the surviving corporation outstanding immediately before the effective date of the merger is an identical outstanding share after the merger; and (c) either no shares of common stock of the surviving corporation and no shares, securities or obligations convertible into such stock are to be issued or delivered under the plan of merger, or the authorized unissued shares or shares of common stock of the surviving corporation to be issued or delivered under the plan of merger plus those initially issuable upon conversion of any other shares, securities or obligations to be issued or delivered under such plan do not exceed 20% of the shares of common stock of such constituent corporation outstanding immediately prior to the effective date of the merger.

INDEMNIFICATION OF OFFICERS AND DIRECTORS AND ADVANCEMENT OF EXPENSES; LIMITATION ON PERSONAL LIABILITY

Indemnification	A corporation may indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, except an action by or in the right of the corporation, by reason of the fact that he is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer,	A corporation may through, among other means, a majority vote of disinterested directors, indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that such person is or was a director, officer, employee or agent of the corporation, or is or

employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses, including attorneys' fees, judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with the action, suit or proceeding, if he is not liable under NRS 78.138 (see below Limitation on Personal Liability of Directors), acted in "good faith" and in a manner he reasonably believed to be in and not opposed to the best interests of the corporation, and with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. However, with respect to actions by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which such court shall deem proper. A director or officer who is successful, on the merits or otherwise, in defense of any proceeding subject to the Nevada corporate statutes' indemnification provisions must be indemnified by the corporation for reasonable expenses incurred in connection therewith, including attorneys' fees.

Axonyx's bylaws provide that the corporation shall, to the maximum extent and in the manner permitted by the Nevada Revised Statutes, indemnify each of its directors and officers against expenses (including attorneys' fees), judgments, fines, settlements, and other amounts actually and reasonably incurred in connection with any proceeding, arising by reason of the fact that such

was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding if such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. However, with respect to actions by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit is brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which such court shall deem proper. A director or officer who is successful, on the merits or otherwise, in defense of any proceeding subject to the Delaware corporate statutes' indemnification provisions must be indemnified by the corporation for reasonable expenses incurred in connection therewith, including attorneys' fees.

The Delaware bylaws will provide that Axonyx shall indemnify its directors and executive officers to the fullest extent not prohibited by the DGCL or any other applicable law. Axonyx will be able to modify the extent of such indemnification by individual contracts with its directors and executive officers. Axonyx will not be required to indemnify any

	person is or was an agent of the corporation.	director or executive officer in connection with any proceeding (or part thereof) initiated by such person unless (i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by Axonyx's board of directors, or (iii) such indemnification is provided by Axonyx, in its sole discretion, pursuant to the DGCL or any other applicable law.
Advancement of Expenses	Under Nevada law, the articles of incorporation, bylaws or an agreement made by the corporation may provide that the corporation must pay advancements of expenses in advance of the final disposition of the action, suit or proceedings upon receipt of an undertaking by or on behalf of the director or officer to repay the amount if it is ultimately determined that he or she is not entitled to be indemnified by the corporation. Axonyx's articles and bylaws do not specifically refer to advancement of expenses.	Delaware law provides that expenses incurred by an officer or director in defending any civil, criminal, administrative or investigative action, suit or proceeding may be paid by the corporation in advance of the final disposition of the action, suit or proceeding upon receipt of an undertaking by or on behalf of the director or officer to repay the amount if it is ultimately determined that he or she is not entitled to be indemnified by the corporation. A Delaware corporation has the discretion to decide whether or not to advance expenses, unless its certificate of incorporation or by-laws provides for mandatory advancement. The Delaware bylaws will provide that Axonyx will advance expenses to any executive officer or director prior to the final disposition of the proceeding.
Limitation on Personal Liability of Directors	The NRS provides for more expansive elimination of liability than Delaware law. Neither a director nor	A Delaware corporation is permitted to adopt provisions in its certificate of incorporation limiting or

	an officer of a Nevada corporation can be held personally liable to the corporation, its stockholders or its creditors unless the director or officer committed both a breach of fiduciary duty and such breach was accompanied by intentional misconduct, fraud, or knowing violation of law. Unlike Delaware, Nevada does not exclude breaches of the duty of loyalty or instances where the director has received an improper personal benefit. Axonyx's articles of incorporation provide for elimination of director liability to the fullest extent permitted by the NRS.	eliminating the liability of a director to a company and its stockholders for monetary damages for breach of fiduciary duty as a director, provided that such liability does not arise from certain proscribed conduct, including breach of the duty of loyalty, acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law or liability to the corporation based on unlawful dividends or distributions or improper personal benefit.
	DIVIDENDS	
Declaration and Payment of Dividends	Nevada law provides that no distribution (including dividends on, or redemption or repurchases of, shares of capital stock) may be made if, after giving effect to such distribution, the corporation would not be able to pay its debts as they become due in the usual course of business, or, except as specifically permitted by the articles of incorporation, the corporation's total assets would be less than the sum of its total liabilities plus the amount that would be needed at the time of a dissolution to satisfy the preferential rights of preferred stockholders.	Delaware law is more restrictive than Nevada law with respect to when dividends may be paid. Under Delaware law, unless further restricted in the certificate of incorporation, a corporation may declare and pay dividends, out of surplus, or if no surplus exists, out of net profits for the fiscal year in which the dividend is declared and/or the preceding fiscal year (provided that the amount of capital of the corporation is not less than the aggregate amount of the capital represented by the issued and outstanding stock of all classes having a preference upon the distribution of assets). In addition, Delaware law provides that a corporation may redeem or repurchase its shares only if the capital of the corporation is not impaired and such redemption or repurchase would not impair the capital of the corporation. The Delaware bylaws will provide that, subject to the provisions of the Delaware certificate of incorporation and applicable law, the board of directors may declare dividends at any regular or special meeting. Dividends may be paid in cash, in property, or in shares of capital stock.

		Before payment of any dividend, the board of directors may set aside any Axonyx funds available for dividends as the board of directors from time to time thinks proper.

ANTITAKEOVER STATUTES

Antitakeover Statutes	Nevada law generally prohibits a Nevada corporation, with shares registered under section 12 of the Exchange Act and with 200 or more stockholders of record, from engaging in a combination (defined in the statute to include a variety of transactions, including mergers, asset sales, issuance of stock and other actions resulting in a financial benefit to the Interested Stockholder) with an Interested Stockholder (defined in the statute generally as a person that is the beneficial owner of 10% or more of the voting power of the outstanding voting shares), for a period of three years following the date that such person became an Interested Stockholder unless the board of directors of the corporation first approved either the combination or the transaction that resulted in the stockholder's becoming an Interested Stockholder. If this approval is not obtained, the combination may be consummated after the three year period expires if either (a) (1) the board of directors of the corporation approved the combination or the purchase of the shares by the Interested Stockholder before the date that the person became an Interested Stockholder, (2) the transaction by which the person became an Interested Stockholder was approved by the board of directors of the corporation before the person became an interested stockholder, or (3) the combination is approved by the affirmative vote of holders of a majority of voting power	Under Delaware law, a corporation that is listed on a national securities exchange, designated as a national market system security on an interdealer quotation system by the National Association of Securities Dealers, Inc. or held of record by more than 2,000 stockholders is not permitted to engage in a business combination with any interested stockholder for a three-year period following the time such stockholder became an interested stockholder, unless (i) the transaction resulting in a person becoming an interested stockholder, or the business combination, is approved by the board of directors of the corporation before the person becomes an interested stockholder; (ii) the interested stockholder acquires 85% or more of the outstanding voting stock of the corporation in the same transaction that makes it an interested stockholder (excluding shares owned by persons who are both officers and directors of the corporation, and shares held by certain employee stock ownership plans); or (iii) on or after the date the person becomes an interested stockholder, the business combination is approved by the corporation's board of directors and by the holders of at least 66$^{2}/_{3}$% of the corporation's outstanding voting stock at an annual or special meeting (and not by written consent), excluding shares owned by the interested stockholder. Delaware law defines "interested stockholder" generally as a person

not beneficially owned by the Interested Stockholder at a meeting called no earlier than three years after the date the Interested Stockholder became such; or (b) the aggregate amount of cash and the market value of consideration other than cash to be received by holders of common stock and holders of any other class or series of shares meets the minimum requirements set forth in NRS Sections 78.441 through 78.443, and prior to the consummation of the combination, except in limited circumstances, the Interested Stockholder would not have become the beneficial owner of additional voting shares of the corporation.

A Nevada corporation may adopt an amendment to its articles of incorporation expressly electing not to be governed by these provisions of the NRS, if such amendment is approved by the affirmative vote of a majority of the disinterested shares entitled to vote; provided, however, such vote by disinterested stockholders is not required to the extent the Nevada corporation is not subject to such provisions. Such an amendment to the articles of incorporation does not become effective until 18 months after the vote of the disinterested stockholders and does not apply to any combination with an Interested Stockholder whose date of acquiring shares is on or before the effective date of the amendment.

The NRS also limits the acquisition of a controlling interest in a Nevada corporation with 200 or more stockholders of record, at least 100 of whom have Nevada addresses appearing on the stock ledger of the corporation, and that does business in Nevada directly or through an affiliated corporation. According to the NRS, an acquiring person who acquires a controlling interest in an

who owns 15% or more of the outstanding shares of a corporation's voting stock.

These provisions do not apply, among other exceptions, if (i) the corporation's original certificate of incorporation contains a provision expressly electing not to be governed by these provisions, or (ii) the corporation, by action of its stockholders, adopts an amendment to its certificate of incorporation or bylaws expressly electing not to be governed by these provisions. The new Delaware certificate of incorporation and bylaws do not contain provisions whereby Axonyx opts out of the business combination or acquisition of a controlling interest statutes.

issuing corporation may not exercise voting rights on any control shares unless such voting rights are conferred by a majority vote of the disinterested stockholders of the issuing corporation at a special or annual meeting of the stockholders. In the event that the control shares are accorded full voting rights and the acquiring person acquires control shares with a majority or more of all the voting power, any stockholder, other than the acquiring person, who does not vote in favor of authorizing voting rights for the control shares is entitled to demand payment for the fair value of such person's shares.

Under the NRS, a controlling interest means the ownership of outstanding voting shares of an issuing corporation sufficient to enable the acquiring person, individually or in association with others, directly or indirectly, to exercise (1) one-fifth or more but less than one-third, (2) one-third or more but less than a majority, or (3) a majority or more of the voting power of the issuing corporation in the election of directors. Outstanding voting shares of an issuing corporation that an acquiring person acquires or offers to acquire in an acquisition and acquires within 90 days immediately preceding the date when the acquiring person became an acquiring person are referred to as control shares.

The control share provisions of the NRS do not apply if the corporation opts-out of such provisions in the articles of incorporation or bylaws of the corporation in effect on the tenth day following the acquisition of a controlling interest by an acquiring person.

Axonyx has not opted out of the business combination or acquisition of a controlling interest statutes.

AMENDMENTS TO ARTICLES OF INCORPORATION OR BYLAWS

General Provisions	Nevada law generally requires the approval of the holders of a majority of all outstanding shares entitled to vote to approve proposed amendments to a corporation's articles of incorporation. Nevada law also provides that in addition to the vote described above, the vote of a majority of the outstanding shares of a class may be required to amend the articles of incorporation. Nevada does not require stockholder approval for the board of directors of a corporation to fix the voting powers, designation, preferences, limitations, restrictions and rights of a class of stock provided that the corporation's organizational documents grant such power to its board of directors. The articles of incorporation of Axonyx grant such power to the Axonyx board of directors.	Delaware law generally requires the approval of the holders of a majority of all outstanding shares entitled to vote to approve proposed amendments to a corporation's certificate of incorporation. Delaware law also provides that in addition to the vote described above, the vote of a majority of the outstanding shares of a class may be required to amend the certificate of incorporation. Delaware does not require stockholder approval for the board of directors of a corporation to fix the voting powers, designation, preferences, limitations, restrictions and rights of a class of stock provided that the corporation's organizational documents grant such power to its board of directors. The Delaware certificate of incorporation will provide that Axonyx reserves the right to repeal, alter, amend or rescind any provision of the certificate of incorporation. The Delaware bylaws will provide that the affirmative vote of a majority of the voting power of all of the then-outstanding shares of capital stock entitled to vote generally in the election of directors may amend, alter or adopt the bylaws, and the board of directors also has the power to adopt, amend or repeal by a vote of the majority of the board of directors, unless a different vote is required pursuant to the certificate of incorporation, bylaws or applicable law; provided; however, the affirmative vote of the holders of at least $66^{2}/_{3}\%$ of the voting power of all of the then-outstanding shares of capital stock entitled to vote generally in the election of directors, voting together as a single class, shall be required to alter, amend or repeal certain provisions of the bylaws relating to stockholder meetings and directors.

	INSPECTION OF BOOKS AND RECORDS	
General Provisions	Under Nevada law, any person who has been a stockholder of record of a Nevada corporation for at least six months immediately preceding a demand, or any person holding or authorized in writing by the holders of, at least five percent of all of its outstanding shares, upon at least five days' written demand is entitled to inspect and copy the following records: a copy certified by the secretary of state of the corporation's articles of incorporation, and all amendments thereto; a copy certified by an officer of the corporation of the corporation's bylaws and all amendments thereto; and a stock ledger, revised annually, containing the names of all persons who are stockholders of the corporation, places of residence, and number of shares held by them respectively. In addition, any stockholder of a Nevada corporation owning not less than 15 percent of all issued and outstanding shares, or who has been authorized in writing by the holders of at least 15 percent of all its issued and outstanding shares, upon at least five days written demand, is entitled to inspect the books of account and all financial records of the corporation, to make extracts therefrom, and to conduct an audit of such records. These rights may not be limited in the articles or bylaws of the corporation but may be denied to any stockholder upon the stockholder's refusal to furnish the corporation an affidavit that such inspection, extracts or audit is not desired for any purpose not related to the stockholder's interest in the corporation as a stockholder. However, the right to inspect and audit financial records does not apply to any corporation listed and traded on any recognized stock exchange or to any corporation that furnishes to its stockholders a detailed, annual financial statement.	Under Delaware law, any stockholder of a Delaware corporation may examine the list of stockholders and any stockholder making a written demand may inspect any other corporate books and records for any purpose reasonably related to the stockholder's interest as a stockholder.

Dissenters' Rights

Holders of record of shares of Axonyx common stock who do not vote in favor of the reincorporation or consent thereto in writing and who properly demand payment for their shares will be entitled to dissenters' rights in connection with the reincorporation under Sections 92A.300 - 92A.500 of the Nevada Revised Statutes, or NRS.

The following discussion is not a complete statement of the law pertaining to dissenters' rights under NRS Sections 92A.300 - 92A.500 and is qualified in its entirety by the full text of NRS Sections 92A.300 - 92A.500, which is attached to this proxy statement as *Annex D*. The following summary does not constitute any legal or other advice nor does it constitute a recommendation that stockholders exercise their dissenters' rights under NRS Sections 92A.300 - 92A.500. All references in NRS Sections 92A.300 - 92A.500 and in this summary to a "stockholder" or "holders of shares of Axonyx common stock" are to the record holder or holders of the shares of Axonyx common stock entitled to vote as to which dissenters' rights are asserted. A person having a beneficial interest in shares of Axonyx common stock held of record in the name of another person, such as a broker, fiduciary, depositary or other nominee, must act promptly to cause the record holder to follow the steps summarized below properly and in a timely manner to perfect dissenters' rights.

To assert dissenters' rights, stockholders must satisfy all of the following conditions in NRS Section 92A.420 and 92A.440:

Before the vote on the adoption of the reincorporation occurs at the annual meeting, each stockholder who wishes to assert dissenters' rights must give written notice to Axonyx before the vote is taken, of the stockholder's intent to demand payment for his or her shares if the reincorporation takes place and shall not vote or cause or permit to be voted his or her shares in favor of the proposed reincorporation. Neither voting against, abstaining from voting, or failing to vote on the adoption of the reincorporation will constitute notice of intent to demand payment or demand for payment of fair value within the meaning of NRS Section 92A.420.

A dissenting stockholder may NOT vote for approval of the reincorporation. If a stockholder returns a signed proxy but does not specify in the proxy a vote against adoption of the reincorporation or an instruction to abstain, the proxy will be voted FOR adoption of the reincorporation, which will have the effect of waiving the rights of that stockholder to have his shares purchased at fair value.

Abstaining from voting or voting against the adoption of the reincorporation will NOT constitute a waiver of a stockholder's rights. After the vote is taken at the annual meeting, if the reincorporation is approved, no later than 10 days after the reincorporation takes place, a written dissenters' notice and form, accompanied by a copy of NRS Sections 92A.300 - 92A.500 inclusive, will be sent to each stockholder who has given the written notice described above and did not vote in favor of the reincorporation. The dissenters' notice will state the results of the vote on the reincorporation, where the payment demand must be sent, and where and when share certificates, if any, must be deposited. It will set a date, not fewer than 30 nor more than 60 days after delivery of the notice, by which the payment demand must be received from the dissenting stockholder. The notice will include a form for demanding payment that will require the stockholder asserting dissenters' rights to certify whether or not the stockholder acquired beneficial ownership of the shares before June 8, 2006, the date of the first announcement to the stockholders and the media of the terms of the proposed reincorporation and that the stockholder did not vote in favor of the transaction. The notice will also inform holders of uncertificated shares to what extent transfer of the uncertificated shares will be restricted after the payment demand is received. Please note that shares acquired after June 8, 2006, referred to in this section as after-acquired shares, may be subject to different treatment in accordance with NRS Section 92A.470 than shares acquired before that date.

A stockholder who receives a dissenters' notice must comply with the terms of the notice. A stockholder asserting dissenters' rights who does so by demanding payment, depositing his certificates in accordance with the terms of the notice and certifying that beneficial ownership was acquired before June 8, 2006 will retain all other rights of a stockholder until these rights are cancelled or modified by the reincorporation.

Dissenters' rights under NRS Section 92A.400 may be asserted either by a beneficial stockholder or a stockholder of record. A record stockholder may assert dissenters' rights as to fewer than every share registered in his name only if he objects for all shares beneficially owned by any one person and notifies Axonyx in writing of the name and address of each person on whose behalf he or she asserts dissenters' rights. A beneficial stockholder may assert dissenters' rights as to shares held on his behalf only if he submits to Axonyx the stockholder of record's written consent before or at the time he asserts dissenters' rights and he does so for all shares that he beneficially owns or over which he has the power to direct the vote.

After the reincorporation takes place, or within 30 days after receipt of a payment demand, Axonyx will pay in cash to each stockholder who complied with the terms of the dissenters' notice the amount Axonyx estimates to be the fair value of the shares, plus interest. The payment will be accompanied by Axonyx's balance sheet as of the end of a fiscal year ending not more than 16 months before the date of payment, an income statement for that year, a statement of changes in stockholder's equity and the latest available interim financial statements; a statement of Axonyx's estimate of the fair value of the shares; an explanation of how the interest was calculated; and a statement of the dissenter's right to demand payment under NRS Sections 92A.300 - 92A.500. Within 30 days of payment or offered payment, if a dissenting stockholder believes that the amount paid is less than the fair value of the shares or that the interest due is incorrectly calculated, the stockholder may notify Axonyx in writing of his own estimate of the fair value of the shares and interest due. If this kind of claim is made by a stockholder, and it cannot be settled, Axonyx is required to petition the court to determine the fair value of the shares and accrued interest within 60 days after receiving the payment demand.

The costs and expenses of a court proceeding will be determined by the court and generally will be assessed against Axonyx, but these costs and expenses may be assessed as the court deems equitable against all or some of the stockholders demanding appraisal who are parties to the proceeding if the court finds the action of the stockholders in failing to accept Axonyx's was arbitrary, vexatious or not in good faith. These expenses may include the fees and expenses of counsel and experts employed by the parties.

All written notices of intent to demand payment of fair value should be sent or delivered to, Investor Relations, Axonyx Inc., 500 Seventh Avenue, 10th Floor, New York, New York 10018.

Accounting Treatment of the Reincorporation

The reincorporation has no affect from an accounting perspective because there is no change in the entity as a result of the reincorporation. Accordingly, the historical consolidated financial statements of Axonyx previously reported to the SEC as of and for all periods through the date of this proxy statement remain the consolidated financial statements of Axonyx-Delaware.

Regulatory Approval

To Axonyx's knowledge, the only required regulatory or governmental approval or filing necessary in connection with the consummation of the reincorporation will be the filing of the articles of conversion with the Secretary of State of Nevada and the filing of the certificate of incorporation and the certificate of conversion with the Secretary of State of Delaware.

Material United States Federal Income Tax Consequences of the Reincorporation

The following discussion summarizes the material United States federal income tax consequences of the reincorporation that are expected to apply generally to holders of Axonyx common stock. This summary is based upon current provisions of the Code, existing Treasury Regulations and current administrative rulings and court decisions, all of which are subject to change and to differing interpretations, possibly with retroactive effect.

This summary only applies to an Axonyx common stockholder that is a "U.S. person," defined to include:

- a citizen or resident of the United States;
- a corporation created or organized in or under the laws of the United States, or any political subdivision thereof (including the District of Columbia);
- an estate the income of which is subject to United States federal income taxation regardless of its source;
- a trust if either:
  - a court within the United States is able to exercise primary supervision over the administration of such trust and one or more United States persons have the authority to control all substantial decisions of such trust, or
  - the trust has a valid election in effect to be treated as a United States person for United States federal income tax purposes; and
  - any other person or entity that is treated for United States federal income tax purposes as if it were one of the foregoing.

A holder of Axonyx common stock other than a "U.S. person" as so defined is, for purposes of this discussion, a "non-U.S. person." If a partnership holds Axonyx common stock, the tax treatment of a partner will generally depend on the status of the partner and the activities of the partnership. If you are a partner of a partnership holding Axonyx common stock, you should consult your tax advisor.

This summary assumes that holders of Axonyx common stock hold their shares of Axonyx common stock as capital assets within the meaning of Section 1221 of the Code (generally, property held for investment). No attempt has been made to comment on all United States federal income tax consequences of the reincorporation that may be relevant to particular holders, including holders:

- who are subject to special treatment under United States federal income tax rules such as dealers in securities, financial institutions, non-U.S. persons, mutual funds, regulated investment companies, real estate investment trusts, insurance companies, or tax-exempt entities;
- who are subject to the alternative minimum tax provisions of the Code;
- who acquired their shares in connection with stock option or stock purchase plans or in other compensatory transactions;
- who hold their shares as qualified small business stock within the meaning of Section 1202 of the Code; or

who hold their shares as part of an integrated investment such as a hedge or as part of a hedging, straddle or other risk reduction strategy.

In addition, the following discussion does not address the tax consequences of the reincorporation under state, local and foreign tax laws. Furthermore, the following discussion does not address any of

the tax consequences of transactions effectuated before, after or at the same time as the reincorporation, whether or not they are in connection with the reincorporation.

Accordingly, holders of Axonyx common stock are advised and expected to consult their own tax advisers regarding the federal income tax consequences of the reincorporation in light of their personal circumstances and the consequences of the reincorporation under state, local and foreign tax laws.

Axonyx believes that the reincorporation of Axonyx from Nevada to Delaware will constitute a reorganization within the meaning of Section 368(a)(1)(F) of the Code. Assuming that the reincorporation will be treated for United States federal income tax purposes as a reorganization within the meaning of Section 368(a)(1)(F) of the Code and subject to the qualifications and assumptions described in this joint proxy statement/prospectus: (i) holders of Axonyx common stock will not recognize any gain or loss as a result of the consummation of the reincorporation, (ii) the aggregate tax basis of shares of the resulting Delaware corporation's common stock received in the reincorporation will be equal to the aggregate tax basis of the shares of Axonyx common stock converted therefor, and (iii) the holding period of the shares of the resulting Delaware corporation's common stock received in the reincorporation will include the holding period of the shares of Axonyx common stock converted therefor.

THE PRECEDING DISCUSSION IS INTENDED ONLY AS A SUMMARY OF CERTAIN UNITED STATES FEDERAL INCOME TAX CONSEQUENCES OF THE REINCORPORATION AND DOES NOT PURPORT TO BE A COMPLETE ANALYSIS OR DISCUSSION OF ALL OF THE REINCORPORATION'S POTENTIAL TAX EFFECTS. HOLDERS OF AXONYX COMMON STOCK ARE URGED TO CONSULT THEIR OWN TAX ADVISORS AS TO THE SPECIFIC TAX CONSEQUENCES TO THEM OF THE REINCORPORATION AND THE APPLICABILITY AND EFFECT OF FEDERAL, STATE, LOCAL AND OTHER APPLICABLE TAX LAWS.

Required Vote

The affirmative vote of the holders of a majority of the shares of Axonyx common stock having voting power outstanding on the record date for the Axonyx annual meeting is required for approval of Axonyx Proposal No. 4.

THE AXONYX BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT AXONYX STOCKHOLDERS VOTE "FOR" AXONYX PROPOSAL NO. 4 TO APPROVE THE CHANGE OF AXONYX'S STATE OF INCORPORATION FROM NEVADA TO DELAWARE.

Axonyx Proposal No. 5: Adoption of Axonyx Inc. 2006 Equity Incentive Plan

References in this proposal to "Axonyx" refer to Axonyx when relating to the period of time prior to the effective time of the merger and to the combined company when relating to the period of time commencing with the effective time of the merger.

At the Axonyx annual meeting, Axonyx stockholders will be asked to adopt, contingent upon and effective as of immediately following the effective time of the merger, the Axonyx Inc. 2006 Equity Incentive Plan, which is referred to herein as the Axonyx 2006 Equity Incentive Plan. If Axonyx Proposal No. 3 is approved by Axonyx's stockholders and Axonyx's name is changed to TorreyPines Therapeutics, Inc., the Axonyx 2006 Equity Incentive Plan, as described in this joint proxy statement/prospectus, will automatically be renamed the "TorreyPines Therapeutics, Inc. 2006 Equity Incentive Plan".

On July 24, 2006, the Axonyx board of directors adopted the Axonyx 2006 Equity Incentive Plan, contingent upon and effective as of immediately following the effective time of the merger, and subject to the approval of Axonyx's stockholders.

In the event the shareholders approve the Axonyx 2006 Equity Incentive Plan, the Axonyx Inc. 1998 Stock Option Plan and the Axonyx Inc. Second Amended and Restated 2000 Stock Option Plan will be terminated contingent upon and effective as of the effective time of the merger.

The principal features of the Axonyx 2006 Equity Incentive Plan are summarized below, but the summary is qualified in its entirety by reference to the Axonyx 2006 Equity Incentive Plan itself which is attached to this joint proxy statement/prospectus statement as *Annex J.* We encourage you to read the Axonyx 2006 Equity Incentive Plan carefully.

General

The Axonyx 2006 Equity Incentive Plan provides for the grant of incentive stock options, nonstatutory stock options, restricted stock awards, restricted stock unit awards, stock appreciation rights, performance stock awards, performance cash awards and other forms of equity compensation, referred to as awards. Incentive stock options granted under the Axonyx 2006 Equity Incentive Plan are intended to qualify as "incentive stock options" within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended, referred to as the Code. Nonstatutory stock options granted under the Axonyx 2006 Equity Incentive Plan are not intended to qualify as incentive stock options under the Code. See the section entitled " Federal Income Tax Information" in this Axonyx Proposal No. 5 for a discussion of the tax treatment of awards.

Purpose

The purpose of the Axonyx 2006 Equity Incentive Plan is to provide a means to secure and retain the services of employees, directors and consultants of the combined company's and its affiliates, to provide incentives for such individuals to exert maximum efforts for the success of the combined company's and its affiliates, and to provide a means by which such eligible individuals may be given an opportunity to benefit from increases in the value of the combined company's common stock through the grant of awards.

Administration

Axonyx's board of directors will administer the Axonyx 2006 Equity Incentive Plan. Subject to the provisions of the Axonyx 2006 Equity Incentive Plan, Axonyx's board of directors has the power to construe and interpret the Axonyx 2006 Equity Incentive Plan, to determine the persons to whom and the dates on which awards will be granted, the number of shares of common stock to be subject to each award, the time or times during the term of each award within which all or a portion of such

award may be exercised, the exercise price, or strike price of each award, the type of consideration permitted to exercise or purchase each award and other terms of the award.

The Axonyx board of directors has the power to delegate some or all of the administration of the Axonyx 2006 Equity Incentive Plan to one or more committees. In the discretion of the Axonyx board of directors, a committee may consist solely of two or more "non-employee directors" within the meaning of Rule 16b-3 of the Exchange Act or solely of two or more "outside directors" within the meaning of Section 162(m) of the Code. Axonyx's board of directors has delegated administration of the Axonyx 2006 Equity Incentive Plan to the compensation committee of the Axonyx board of directors. As used herein with respect to the Axonyx 2006 Equity Incentive Plan, "Axonyx's board of directors" refers to any committee the board of directors of Axonyx appoints or, if applicable, any subcommittee, as well as to the Axonyx board of directors itself.

The Axonyx board of directors also may delegate to one or more officers the power to do one or both of the following: (a) designate employees who are not officers to be recipients of options (and, to the extent permitted by applicable law, other stock awards) and the terms thereof, and (b) determine the number of shares of common stock to be subject to such stock awards granted to such employees; provided, however, that the resolutions of Axonyx's board of directors regarding such delegation shall specify the total number of shares of common stock that may be subject to the stock awards granted by such officer and that such officer may not grant a stock award to himself or herself. The Axonyx board of directors may not delegate to an officer authority to determine the fair market value of the common stock.

Stock Subject to the Axonyx 2006 Equity Incentive Plan

An aggregate of 15,000,000 shares of Axonyx common stock is reserved for issuance under the Axonyx 2006 Equity Incentive Plan, which number will be reduced to account for the reverse stock split. Additionally, the number of shares reserved for issuance under the Axonyx 2006 Equity Incentive Plan will be increased annually on the first day of each fiscal year commencing on January 1, 2007 by an amount equal to the lesser of two percent (2%) of the shares of Axonyx common stock then outstanding, 5,000,000 shares of Axonyx common stock, reduced to account for the reverse stock split, or such lesser number of shares of Axonyx common stock as determined by Axonyx's board of directors. Shares may be issued in connection with a merger or acquisition as permitted by the rules of the applicable national securities exchange or national market, as applicable, and such issuance shall not reduce the number of shares available for issuance under the Axonyx 2006 Equity Incentive Plan. If an award granted under the Axonyx 2006 Equity Incentive Plan expires or otherwise terminates without being exercised in full, is settled in cash, or if any shares of common stock issued pursuant to an award are forfeited to or repurchased by Axonyx, including, but not limited to, any repurchase or forfeiture caused by the failure to meet a contingency or condition required for the vesting of such shares, then the shares of common stock not issued under such award, or forfeited to or repurchased by Axonyx, shall revert to and again become available for issuance under the Axonyx 2006 Equity Incentive Plan. If any shares subject to an award are not delivered to a participant because such shares are withheld for the payment of taxes or the award is exercised through a reduction of shares subject to the stock award (*i.e.*, "net exercised"), the number of shares that are not delivered shall remain available for issuance under the Axonyx 2006 Equity Incentive Plan. If the exercise price of any stock award is satisfied by tendering shares of common stock held by the participant, then the number of shares so tendered shall remain available for issuance under the Axonyx 2006 Equity Incentive Plan. Any issued shares that are forfeited back to or repurchased by Axonyx, are withheld for the payment of taxes, or are utilized as part of a "net exercise" shall not be subsequently issued under the Axonyx 2006 Equity Incentive Plan pursuant to the exercise of incentive stock options.

Eligibility

Incentive stock options may be granted under the Axonyx 2006 Equity Incentive Plan only to employees (including officers) of Axonyx and its affiliates. Employees (including officers) and consultants of both Axonyx and its affiliates and directors of Axonyx are eligible to receive all other types of awards under the Axonyx 2006 Equity Incentive Plan. Non-employee directors of Axonyx's affiliates are not eligible to receive awards under the Axonyx 2006 Equity Incentive Plan. All of the approximately 50 employees and consultants of the combined company and its affiliates and 7 non-employee directors of the combined company will be eligible to participate in the Axonyx 2006 Equity Incentive Plan.

No incentive stock option may be granted under the Axonyx 2006 Equity Incentive Plan to any person who, at the time of the grant, owns (or is deemed to own) stock possessing more than 10% of the total combined voting power of Axonyx or any affiliate of Axonyx, unless the exercise price is at least 110% of the fair market value of the stock subject to the option on the date of grant and the term of the option does not exceed five years from the date of grant. In addition, the aggregate fair market value, determined at the time of grant, of the shares of common stock with respect to which incentive stock options are exercisable for the first time by a participant during any calendar year (under the Axonyx 2006 Equity Incentive Plan and all other such plans of Axonyx and its affiliates) may not exceed $100,000.

Under the Axonyx 2006 Equity Incentive Plan, no employee may be granted options and stock appreciation rights covering more than 15,000,000 shares of common stock, subject to adjustment to account for the reverse stock split, during any calendar year, which is referred to herein as the "Section 162(m) limitation."

Terms of Options

Options may be granted under the Axonyx 2006 Equity Incentive Plan pursuant to stock option agreements. The following is a description of the permissible terms of options under the Axonyx 2006 Equity Incentive Plan. Individual option agreements may be more restrictive as to any or all of the permissible terms described below.

Exercise Price. The exercise price of incentive stock options may not be less than 100% of the fair market value of the stock subject to the option on the date of the grant and, in some cases (see the "Eligibility" section of this Axonyx Proposal No. 5), may not be less than 110% of such fair market value. The exercise price of nonstatutory options may not be less than 100% of the fair market value of the stock subject to the option on the date of grant. For purposes of the Axonyx 2006 Equity Incentive Plan, fair market value will usually determined by reference to the closing price of Axonyx's common stock as reported on the NASDAQ Global Market or the NASDAQ Capital Market, as applicable. As of August 22, the closing price of Axonyx's common stock as reported on the NASDAQ Capital Market was $0.87 per share.

Consideration. The exercise price of options granted under the Axonyx 2006 Equity Incentive Plan must be paid, to the extent permitted by applicable law and at the discretion of Axonyx's board of directors:

by cash, check, bank draft or money order;

pursuant to a broker-assisted cashless exercise;

by delivery of shares of Axonyx common stock;

pursuant to a net exercise arrangement; or

in any other form of legal consideration acceptable to Axonyx's board of directors.

Vesting. Options granted under the Axonyx 2006 Equity Incentive Plan may become exercisable in cumulative increments, or "vest," as determined by Axonyx's board of directors. Vesting typically will occur during the optionholder's continued service with Axonyx or an affiliate, whether such service is performed in the capacity of an employee, consultant or director, which is referred to herein as "service," and regardless of any change in the capacity of the service performed. Shares covered by different options granted under the Axonyx 2006 Equity Incentive Plan may be subject to different vesting terms. Axonyx's board of directors has the authority to accelerate the time during which an option may vest or be exercised.

Tax Withholding. To the extent provided by the terms of an option, a participant may satisfy any federal, state or local tax withholding obligation relating to the exercise of such option by a cash payment upon exercise, by authorizing Axonyx to withhold a portion of the stock otherwise issuable to the participant, by delivering already-owned Axonyx common stock or by a combination of these means.

Term. The maximum term of options granted under the Axonyx 2006 Equity Incentive Plan is 10 years, except that in certain cases (see the " Eligibility" section of this Axonyx Proposal No. 5) the maximum term is five years.

Termination of Service. Options granted under the Axonyx 2006 Equity Incentive Plan generally terminate three months after termination of the participant's service unless:

- such termination is for cause (as defined in the Axonyx 2006 Equity Incentive Plan), in which case the option will terminate upon the termination date;
- termination is due to the participant's disability, in which case the option may be exercised (to the extent the option was exercisable at the time of the termination of service) at any time within 12 months following termination;
- the participant dies at any time while the option remains outstanding, in which case the option may be exercised (to the extent the option was exercisable at the time of the participant's death) within 18 months following the participant's death by the person or persons to whom the rights to such option have passed; or
- the option by its terms specifically provides otherwise.

The option term may be extended in the event that exercise of the option following termination of service is prohibited by applicable securities laws. In no event, however, may an option be exercised beyond the expiration of its term.

Restrictions on Transfer. Unless provided otherwise by Axonyx's board of directors, a participant in the Axonyx 2006 Equity Incentive Plan may not transfer an option other than by will or by the laws of descent and distribution or pursuant to a domestic relations order. During the lifetime of the participant, only the participant (or the transferee pursuant to a domestic relations order) may exercise an option. A participant may also designate a beneficiary who may exercise an option following the participant's death.

Terms of Restricted Stock Awards

Restricted stock awards may be granted under the Axonyx 2006 Equity Incentive Plan pursuant to restricted stock award agreements.

Consideration. Shares of stock acquired under a restricted stock award may be issued or awarded in consideration for past or future services rendered or to be rendered to Axonyx or an affiliate, or any other form of legal consideration that may be acceptable to Axonyx's board of directors.

Vesting. Shares of stock acquired under a restricted stock award may, but need not be, subject to forfeiture or a repurchase option in favor of Axonyx in accordance with a vesting schedule as determined by Axonyx's board of directors. Axonyx's board of directors has the authority to accelerate the vesting of stock acquired pursuant to a restricted stock award.

Termination of Service. Upon termination of a participant's service, Axonyx may repurchase or otherwise cause the participant to forfeit any shares of stock that have not vested as of such termination under the terms of the applicable restricted stock award agreement.

Restrictions on Transfer. Shares of stock acquired under a restricted stock award may be transferred only upon such terms and conditions as determined by Axonyx's board of directors.

Terms of Restricted Stock Unit Awards

Restricted stock unit awards may be granted under the Axonyx 2006 Equity Incentive Plan pursuant to restricted stock unit award agreements.

Consideration. The purchase price, if any, for restricted stock unit awards may be paid in any form of legal consideration acceptable to Axonyx's board of directors.

Settlement of Awards. A restricted stock unit award may be settled by the delivery of shares of Axonyx's common stock, in cash, or by any combination of these means determined by Axonyx's board of directors and set forth in the restricted stock unit agreement.

Vesting. Restricted stock unit awards vest in the manner specified in the restricted stock unit award agreement as determined by Axonyx's board of directors. However, at the time of grant, Axonyx's board of directors may impose additional restrictions or conditions that delay the delivery of stock or cash subject to the restricted stock unit award after vesting.

Dividend Equivalents. Dividend equivalent rights may be credited with respect to shares covered by a restricted stock unit award.

Termination of Service. Except as otherwise provided in the applicable award agreement, restricted stock units that have not vested will be forfeited upon the participant's termination of service.

Stock Appreciation Rights

Stock appreciation rights may be granted under the Axonyx 2006 Equity Incentive Plan pursuant to stock appreciation rights agreements.

Exercise. Each stock appreciation right is denominated in shares of common stock equivalents. Upon exercise of a stock appreciation right, Axonyx will pay the participant an amount equal to the excess of (a) the aggregate fair market value of Axonyx's common stock on the date of exercise, over (b) the strike price determined by Axonyx's board of directors on the date of grant. The strike price of stock appreciation rights granted under the Axonyx 2006 Equity Incentive Plan may not be less than 100% of the fair market value of the common stock on the date of grant.

Settlement of Awards. The appreciation distribution upon exercise of a stock appreciation right may be paid in cash, shares of Axonyx's common stock, or any other form of consideration determined by Axonyx's board of directors.

Vesting. Stock appreciation rights vest and become exercisable at the rate specified in the stock appreciation right agreement as determined by Axonyx's board of directors.

Term. The maximum term of stock appreciation rights granted under the Axonyx 2006 Equity Incentive Plan is ten years.

Termination of Service. Upon termination of a participant's service (other than for cause), the participant generally may exercise any vested stock appreciation right for three months (or such longer or shorter period specified in the stock appreciation right agreement) after the date such service relationship ends. However, in no event may a stock appreciation right be exercised beyond the expiration of its term. If the termination is for cause, then the stock appreciation right will terminate upon the participant's termination of service.

Performance-Based Awards

Under the Axonyx 2006 Equity Incentive Plan, an award may be granted, vest or be exercised based upon the attainment during a certain period of time of certain performance goals. All employees of Axonyx and its affiliates and directors of Axonyx are eligible to receive performance-based awards under the Axonyx 2006 Equity Incentive Plan. The length of any performance period, the performance goals to be achieved during the performance period, and the measure of whether and to what degree such performance goals have been attained shall be determined by Axonyx's board of directors. The maximum number of shares to be received by any individual in any calendar year attributable to performance-based stock awards may not exceed 15,000,000 shares of Axonyx's common stock, subject to adjustment to account for the reverse stock split. The maximum amount to be received by any individual in any calendar year attributable to performance-based cash awards may not exceed $5 million.

In granting a performance-based award, Axonyx's board of directors will set a period of time, referred to herein as a "performance period," over which the attainment of one or more goals, referred to herein as "performance goals," will be measured for the purpose of determining whether the award recipient has a vested right in or to such award. Within the time period prescribed by Section 162(m) of the Code (typically before the 90th day of a performance period), Axonyx's board of directors will establish the performance goals, based upon one or more pre-established criteria, referred to herein as "performance criteria," enumerated in the Axonyx 2006 Equity Incentive Plan and described below. As soon as administratively practicable following the end of the performance period, Axonyx's board of directors will certify (in writing) whether the performance goals have been satisfied.

Performance goals under the Axonyx 2006 Equity Incentive Plan shall be determined by Axonyx's board of directors, based on one or more of the following performance criteria:

earnings per share;

earnings before interest, taxes and depreciation;

earnings before interest, taxes, depreciation and amortization, or EBITDA;

total stockholder return;

return on equity;

return on assets, investment, or capital employed;

operating margin;

gross margin;

operating income;

net income (before or after taxes);

net operating income;

net operating income after tax;

pre-and after-tax income;

pre-tax profit;

operating cash flow;

sales or revenue targets;

orders and revenue;

increases in revenue or product revenue;

expenses and cost reduction goals;

improvement in or attainment of expense levels;

improvement in or attainment of working capital levels;

economic value added (or an equivalent metric);

market share;

cash flow;

cash flow per share;

share price performance;

debt reduction;

implementation or completion of projects or processes;

customer satisfaction;

stockholders' equity;

quality measures; and

to the extent that an award is not intended to comply with Section 162(m) of the Code, other measures of performance selected by Axonyx's board of directors.

Axonyx's board of directors is authorized to determine whether, when calculating the attainment of performance goals for a performance period:

- to exclude restructuring and/or other nonrecurring charges;
- to exclude exchange rate effects, as applicable, for non-U.S. dollar denominated net sales and operating earnings;
- to exclude the effects of changes to generally accepted accounting standards required by the Financial Accounting Standards board;
- to exclude the effects of any statutory adjustments to corporate tax rates; and
- to exclude the effects of any "extraordinary items" as determined under generally accepted accounting principles. In addition, Axonyx's board of directors retains the discretion to reduce or eliminate the compensation or economic benefit due upon attainment of performance goals.

If Axonyx Proposal No. 5 is approved by Axonyx's stockholders, compensation attributable to performance-based awards under the Axonyx 2006 Equity Incentive Plan will qualify as performance-based compensation, provided that:

- the award is granted by a compensation committee of Axonyx's board of directors comprised solely of "outside directors;"

the award is granted (or exercisable) only upon the achievement of an objective performance goal established in writing by the compensation committee of Axonyx's board of directors while the outcome is substantially uncertain; and

Axonyx's compensation committee certifies in writing prior to the settlement of the award that the performance goal has been satisfied.

Terms of Other Equity Awards

Axonyx's board of directors may grant other equity awards that are valued in whole or in part by reference to Axonyx's common stock. Subject to the provisions of the Axonyx 2006 Equity Incentive Plan, Axonyx's board of directors has the authority to determine the persons to whom and the dates on which such other equity awards will be granted, the number of shares of common stock (or cash equivalents) to be subject to each award, and other terms and conditions of such awards.

Adjustment Provisions

If any change is made to the outstanding shares of Axonyx's common stock without Axonyx's receipt of consideration (whether through merger, consolidation, reorganization, stock dividend, or stock split or other specified change in the capital structure of Axonyx), appropriate adjustments will be made to:

the maximum number and/or class of securities issuable under the Axonyx 2006 Equity Incentive Plan, including, without limitation, the number of shares and/or class of securities by which the share reserve shall automatically be increased on the first day of each fiscal year of the combined company;

the maximum number and/or class of securities for which any one person may be granted options and/or stock appreciation rights or performance-based awards per calendar year pursuant to the Section 162(m) limitation; and

the number and/or class of securities and the price per share in effect under each outstanding award under the Axonyx 2006 Equity Incentive Plan.

Effect of Certain Corporate Events

Under the Axonyx 2006 Equity Incentive Plan, unless otherwise provided in a written agreement between Axonyx or any affiliate and the holder of an award, in the event of a corporate transaction (as defined in the Axonyx 2006 Equity Incentive Plan and described below), all outstanding stock awards under the Axonyx 2006 Equity Incentive Plan may be assumed, continued or substituted for by any surviving or acquiring entity (or its parent company). If the surviving or acquiring entity (or its parent company) elects not to assume, continue or substitute for such stock awards, then (a) with respect to any such stock awards that are held by individuals whose continuous service with Axonyx or its affiliates has not terminated prior to the effective date of the corporate transaction, the vesting and exercisability provisions of such stock awards will be accelerated in full and such awards will terminate if not exercised prior to the effective date of the corporate transaction, and (b) with respect to any stock awards that are held by other individuals, the vesting and exercisability provisions of such stock awards will not be accelerated and such awards will terminate if not exercised prior to the effective date of the corporate transaction (except that any reacquisition or repurchase rights held by Axonyx with respect to such stock awards shall not terminate and may continued to be exercised notwithstanding the corporate transaction). In the event a stock award will terminate if not exercised, Axonyx's board of directors may provide, in its sole discretion, that the holder of such stock award may not exercise such stock award but will receive a payment equal to the excess of the value of the property the holder would have received upon exercise over any exercise price.

For purposes of the Axonyx 2006 Equity Incentive Plan, a corporate transaction will be deemed to occur in the event of:

- a sale of all or substantially all of the consolidated assets of Axonyx and its subsidiaries;
- the sale of at least 90% of the outstanding securities of Axonyx;
- the consummation of a merger or consolidation in which Axonyx is not the surviving corporation; or
- the consummation of a merger or consolidation in which Axonyx is the surviving corporation but shares of Axonyx's outstanding common stock are converted into other property by virtue of the transaction.

A stock award may be subject to additional acceleration of vesting and exercisability upon or after the occurrence of certain specified change in control transactions (as defined in the Axonyx 2006 Equity Incentive Plan), as may be provided in the agreement for such award or as may be provided in any other written agreement between Axonyx or an affiliate and the participant, but in the absence of such provision, no such acceleration shall occur.

The acceleration of vesting of an award in the event of a corporate transaction or a change in control event under the Axonyx 2006 Equity Incentive Plan may be viewed as an anti-takeover provision, which may have the effect of discouraging a proposal to acquire or otherwise obtain control of Axonyx.

Duration, Amendment and Termination

Axonyx's board of directors may suspend or terminate the Axonyx 2006 Equity Incentive Plan without stockholder approval or ratification at any time. Unless sooner terminated, the Axonyx 2006 Equity Incentive Plan will terminate on July 23, 2016.

Axonyx's board of directors may amend or modify the Axonyx 2006 Equity Incentive Plan at any time. However, no amendment that

- materially increases the number of shares of common stock available for issuance under the Axonyx 2006 Equity Incentive Plan;
- materially expands the class of individuals eligible to receive awards under the Axonyx 2006 Equity Incentive Plan;
- materially increases the benefits accruing to participants under the Axonyx 2006 Equity Incentive Plan or materially reduces the price at which shares of common stock may be issued or purchased under the Axonyx 2006 Equity Incentive Plan;
- materially extends the term of the Axonyx 2006 Equity Incentive Plan; or
- expands the types of awards available for issuance under the Axonyx 2006 Equity Incentive Plan, shall be effective unless approved by the stockholders of Axonyx to the extent stockholder approval is necessary to satisfy applicable law or applicable exchange listing requirements.

Axonyx's board of directors also may submit any other amendment to the Axonyx 2006 Equity Incentive Plan for stockholder approval, including, but not limited to, amendments intended to satisfy the requirements of Section 162(m) of the Code regarding the exclusion of performance-based compensation from the limitation on the deductibility of compensation paid to certain employees.

Federal Income Tax Information

The following is a summary of the principal United States federal income tax consequences to Axonyx's employees and Axonyx with respect to participation in the Axonyx 2006 Equity Incentive Plan. This summary is not intended to be exhaustive, and does not discuss the income tax laws of any city, state or foreign jurisdiction.

Incentive Stock Options. Incentive stock options granted under the Axonyx 2006 Equity Incentive Plan are intended to be eligible for the favorable federal income tax treatment accorded "incentive stock options" under the Code. There generally are no federal income tax consequences to the participant or Axonyx by reason of the grant or exercise of an incentive stock option. However, the exercise of an incentive stock option may increase the participant's alternative minimum tax liability, if any.

If a participant holds stock acquired through exercise of an incentive stock option for more than two years from the date on which the option was granted and more than one year after the date the option was exercised for those shares, any gain or loss on a disposition of those shares, which is referred to herein as a "qualifying disposition," will be a long-term capital gain or loss. Upon such a qualifying disposition, Axonyx will not be entitled to any income tax deduction.

Generally, if the participant disposes of the stock before the expiration of either of these holding periods, which is referred to herein as a "disqualifying disposition," then at the time of disposition the participant will realize taxable ordinary income equal to the lesser of (a) the excess of the stock's fair market value on the date of exercise over the exercise price, or (b) the participant's actual gain, if any, on the purchase and sale. The participant's additional gain or any loss upon the disqualifying disposition will be a capital gain or loss, which will be long-term or short-term depending on whether the stock was held for more than one year.

To the extent the participant recognizes ordinary income by reason of a disqualifying disposition, generally Axonyx will be entitled (subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code, and the satisfaction of a tax reporting obligation) to a corresponding income tax deduction in the tax year in which the disqualifying disposition occurs.

Nonstatutory Stock Options. No taxable income is recognized by a participant upon the grant of a nonstatutory stock option. Upon exercise of a nonstatutory stock option, the participant will recognize ordinary income equal to the excess, if any, of the fair market value of the purchased shares on the exercise date over the exercise price paid for those shares. Generally, Axonyx will be entitled (subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code, and the satisfaction of a tax reporting obligation) to a corresponding income tax deduction in the tax year in which such ordinary income is recognized by the participant.

Upon disposition of the stock, the participant will recognize a capital gain or loss equal to the difference between the selling price and the sum of the amount paid for such stock plus any amount recognized as ordinary income upon exercise of the option. Such gain or loss will be long-term or short-term depending on whether the stock was held for more than one year.

Restricted Stock Awards. Upon receipt of a restricted stock award, the participant will recognize ordinary income equal to the excess, if any, of the fair market value of the shares on the date of issuance over the purchase price, if any, paid for those shares. Axonyx will be entitled (subject to the requirement of reasonableness, the provisions of Section 162(m) of the Code, and the satisfaction of a tax reporting obligation) to a corresponding income tax deduction in the tax year in which such ordinary income is recognized by the participant.

However, if the shares issued upon the grant of a restricted stock award are unvested and subject to reacquisition or repurchase by Axonyx in the event of the participant's termination of service prior

to vesting in those shares, the participant will not recognize any taxable income at the time of issuance, but will have to report as ordinary income, as and when Axonyx's reacquisition or repurchase right lapses, an amount equal to the excess of (a) the fair market value of the shares on the date the reacquisition or repurchase right lapses, over (b) the purchase price, if any, paid for the shares. The participant may, however, elect under Section 83(b) of the Code to include as ordinary income in the year of issuance an amount equal to the excess of (x) the fair market value of the shares on the date of issuance, over (y) the purchase price, if any, paid for such shares. If the Section 83(b) election is made, the participant will not recognize any additional income as and when the reacquisition or repurchase right lapses.

Upon disposition of the stock acquired upon the receipt of a restricted stock award, the participant will recognize a capital gain or loss equal to the difference between the selling price and the sum of the amount paid for such stock plus any amount recognized as ordinary income upon issuance (or vesting) of the stock. Such gain or loss will be long-term or short-term depending on whether the stock was held for more than one year.

Restricted Stock Unit Awards. No taxable income is recognized upon receipt of a restricted stock unit award. The participant will recognize ordinary income in the year in which the shares subject to that unit are actually issued to the participant in an amount equal to the fair market value of the shares on the date of issuance. The participant and Axonyx will be required to satisfy certain tax withholding requirements applicable to such income. Subject to the requirement of reasonableness, Section 162(m) of the Code and the satisfaction of a tax reporting obligation, Axonyx will be entitled to an income tax deduction equal to the amount of ordinary income recognized by the participant at the time the shares are issued. In general, the deduction will be allowed for the taxable year in which such ordinary income is recognized by the participant.

Stock Appreciation Rights. No taxable income is realized upon the receipt of a stock appreciation right. Upon exercise of the stock appreciation right, the fair market value of the shares (or cash in lieu of shares) received is recognized as ordinary income to the participant in the year of such exercise. Generally, with respect to employees, Axonyx is required to withhold from the payment made on exercise of the stock appreciation right or from regular wages or supplemental wage payments an amount based on the ordinary income recognized. Subject to the requirement of reasonableness, Section 162(m) of the Code and the satisfaction of a reporting obligation, Axonyx will be entitled to an income tax deduction equal to the amount of ordinary income recognized by the participant.

Compliance with Section 409A of the Code. Axonyx intends that stock options and stock appreciation rights granted under the Axonyx 2006 Equity Incentive Plan will not be subject to Section 409A of the Code. Axonyx also intends that any awards granted under the Axonyx 2006 Equity Incentive Plan that include a deferral feature shall contain such provisions so that such awards will comply with the requirements of Section 409A of the Code. Generally, if at any time during a taxable year a nonqualified deferred compensation plan fails to meet the requirements of Section 409A of the Code, or is not operated in accordance with those requirements, all amounts deferred under the Axonyx 2006 Equity Incentive Plan for the taxable year and all preceding taxable years, by any participant with respect to whom the failure relates, will be includible in gross income for the taxable year to the extent not subject to a substantial risk of forfeiture and not previously included in gross income. If a deferred amount is required to be included in income under Section 409A, the amount also is subject to interest and an additional income tax. The interest imposed is equal to the interest at the underpayment rate plus one percentage point, imposed on the underpayments that would have occurred had the compensation been includible in income for the taxable year when first deferred, or if later, when not subject to a substantial risk of forfeiture. The additional income tax is equal to 20% of the compensation required to be included in gross income.

Potential Limitation on Deductions. Section 162(m) of the Code denies a deduction to any publicly held corporation for compensation paid to certain "covered employees" in a taxable year to the extent that compensation to such covered employee exceeds $1 million. It is possible that compensation attributable to awards, when combined with all other types of compensation received by a covered employee from Axonyx, may cause this limitation to be exceeded in any particular year.

Certain kinds of compensation, including qualified "performance-based compensation," are disregarded for purposes of the deduction limitation. In accordance with Treasury Regulations issued under Section 162(m) of the Code, compensation attributable to stock options and stock appreciation rights will qualify as performance-based compensation if such awards are approved by a compensation committee comprised solely of "outside directors" and the plan contains a per-employee limitation on the number of shares for which such awards may be granted during a specified period, the per-employee limitation is approved by the stockholders, and the exercise or strike price of the award is no less than the fair market value of the stock on the date of grant.

Compensation attributable to restricted stock awards, restricted stock unit awards and performance-based awards will qualify as performance-based compensation, provided that:

- the award is approved by a compensation committee of Axonyx's board of directors comprised solely of "outside directors;"
- the award is granted (or exercisable) only upon the achievement of an objective performance goal established in writing by the compensation committee of Axonyx's board of directors while the outcome is substantially uncertain;
- the compensation committee of Axonyx's board of directors certifies in writing prior to the granting (or exercisability) of the award that the performance goal has been satisfied; and
- prior to the granting (or exercisability) of the award, stockholders have approved the material terms of the award (including the class of employees eligible for such award, the business criteria on which the performance goal is based, and the maximum amount, or formula used to calculate the amount, payable upon attainment of the performance goal).

New Plan Benefits

No equity awards have been granted, and no shares of Axonyx common stock have been issued, under the Axonyx 2006 Equity Incentive Plan for which stockholder approval is sought under Axonyx Proposal No. 5. The future benefits that will be received under the Axonyx 2006 Equity Incentive Plan by Axonyx's current directors, executive officers and by all eligible employees are not currently determinable.

Required Vote

The affirmative vote of the holders of a majority of the shares of Axonyx common stock having voting power present in person or represented by proxy at the Axonyx annual meeting is required for approval of Axonyx Proposal No. 5.

THE AXONYX BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT AXONYX'S STOCKHOLDERS VOTE "FOR" AXONYX PROPOSAL NO. 5 TO APPROVE THE ADOPTION OF THE AXONYX 2006 EQUITY INCENTIVE PLAN.

Axonyx Proposal No. 6: Election of Directors

Axonyx's board of directors is currently comprised of six members. Each director is elected to hold office for a one year term or until the next annual meeting of stockholders and until his successor is elected and qualified or until his earlier death, resignation or removal.

The nominating/governance committee of Axonyx's board of directors has nominated Gosse B. Bruinsma, M.D., Marvin S. Hausman, M.D., Steven B. Ratoff, Louis G. Cornacchia, Steven H. Ferris, Ph.D. and Ralph Snyderman, M.D. for re-election to the Axonyx board of directors.

The six nominees receiving the most "For" votes from the Axonyx shares having voting power present in person or represented by proxy and entitled to vote at the Axonyx annual meeting will be elected. Shares represented by executed proxies will be voted, if authority to do so is not withheld, for the election of Dr. Bruinsma, Dr. Hausman, Mr. Ratoff, Mr. Cornacchia, Dr. Ferris and Dr. Snyderman. In the event that any nominee should be unavailable for election as a result of an unexpected occurrence, such shares will be voted for the election of such substitute nominee as the nominating/governance committee of Axonyx's board of directors may propose. Dr. Bruinsma, Dr. Hausman, Mr. Ratoff, Mr. Cornacchia, Dr. Ferris and Dr. Snyderman have each agreed to serve if elected, and Axonyx has no reason to believe that any nominee will be unable to serve.

If the nominees are reelected at the annual meeting and the merger is subsequently completed, in accordance with the provisions of the merger agreement Messrs. Bruinsma, Cornacchia and Snyderman will resign as Axonyx directors, Messrs. Hausman, Ratoff and Ferris will continue as directors of the combined company and five current directors of Axonyx will be appointed as new directors of the combined company. For more information, please see the section entitled "The Merger Agreement Directors and Officers of Axonyx Following the Merger" in this joint proxy statement/prospectus.

Set forth below is biographical information for each person nominated.

THE AXONYX BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT AXONYX'S STOCKHOLDERS VOTE IN FAVOR OF EACH NAMED NOMINEE.

Set forth below is information regarding each director nominee, executive officer and significant employee of Axonyx. There are no family relationships among any directors nominees of Axonyx.

Name	Age	Position	Director Since
Gosse B. Bruinsma, M.D.	51	President & Chief Executive Officer President of Axonyx Europe BV, Director	2001
Ralph Snyderman, M.D.	66	Director	2004
Louis G. Cornacchia	73	Director	2003
Steven B. Ratoff	64	Chairman of the Board, Director	2005
Marvin S. Hausman, M.D.	65	Director	1996
Steven H. Ferris, Ph.D.	63	Director	2003
S. Colin Neill	60	Chief Financial Officer, Treasurer & Secretary	N/A
Paul M. Feuerman	46	General Counsel	N/A

Director Biographical Information

The following biographical information is furnished with regard to the director nominees of Axonyx as of June 30, 2006.

Nominees for Election for a One-Year Term Expiring at Axonyx's 2007 Annual Meeting of Stockholders

Gosse B. Bruinsma, M.D.

Dr. Gosse Bruinsma has served as President of Axonyx Europe BV since its formation in October 2000. Dr. Bruinsma has served as the Chief Operating Officer of Axonyx since February 2001 and was Treasurer of Axonyx until September 2003. He joined the Axonyx board in 2001. Since September 2003, Dr. Bruinsma also has served as President of Axonyx. On March 3, 2005, Axonyx announced that Dr. Bruinsma became the CEO. Dr. Bruinsma has over 15 years experience in the medical, pharmaceutical and biotechnology fields. Dr. Bruinsma received his undergraduate degree from McGill University, Montreal and received his medical degree from the University of Leiden, the Netherlands. He joined the pharmaceutical industry to become European Medical Director for Zambon, Milan. He subsequently joined the international contract research organization, ClinTrials Research, to become their Vice President for Medical and Regulatory Affairs. In September 1995 Dr. Bruinsma joined Forest Laboratories in New York as Medical Director, with medical responsibility for their anti-hypertensive product launch, HRT program, and their urological disease projects. From September 1997 to 1999 Dr. Bruinsma was General Manager and Vice-President Development for Chrysalis Clinical Services Europe based in Switzerland. From November 1999 until he joined Axonyx Europe BV, Dr. Bruinsma was the Vice President Development for Crucell BV (formerly IntroGene), a biotechnology company based in the Netherlands.

Marvin S. Hausman, M.D.

Dr. Hausman has been a director of Axonyx since its founding in 1996. He served as President of Axonyx from 1997 until 2003 (when Dr. Bruinsma was appointed President) and as Chief Executive Officer of Axonyx from 1997 until 2005 (when Dr. Bruinsma was appointed Chief Executive Officer). Dr. Hausman served as Chairman of Axonyx's board of directors from 2003 until September 2005. Dr. Hausman was a co-founder of Medco Research Inc., a pharmaceutical biotechnology company specializing in adenosine products. He has thirty years of experience in drug development and clinical care. Dr. Hausman received his medical degree from New York University School of Medicine in 1967 and completed residencies in General Surgery at Mt. Sinai Hospital in New York, and in Urological Surgery at U.C.L.A. Medical Center in Los Angeles. He also worked as a Research Associate at the National Institutes of Health, Bethesda, Maryland. He has been a Lecturer, Clinical Instructor and Attending Surgeon at the U.C.L.A. Medical Center Division of Urology and Cedars-Sinai Medical Center, Los Angeles. He has been a Consultant on Clinical/Pharmaceutical Research to various pharmaceutical companies, including Bristol-Meyers International, Mead-Johnson Pharmaceutical Company, Medco Research, Inc., and E.R. Squibb. Since October 1995, Dr. Hausman has been the President of Northwest Medical Research Partners, Inc., a medical technology and transfer company. Dr. Hausman served on the board of directors of OXIS International, Inc. or, OXIS, from March 2002 to November 2003. He was a member of the board of directors of Medco Research, Inc. from inception (1978) through 1992 and from May 1996 to July 1998. Dr. Hausman was a member of the board of directors of Regent Assisted Living, Inc., a company specializing in building assisted living centers including care of senile dementia residents, from March 1996 to April 2001. Dr. Hausman currently serves as Chairman of the board of directors of OXIS, in which Axonyx holds a 34% interest.

Steven B. Ratoff

Mr. Ratoff joined the Axonyx board of directors in May 2005. In September 2005, Mr. Ratoff became Chairman of the Axonyx board of directors. Mr. Ratoff is currently a private investor and a Venture Partner with Proquest Investments, a biopharmaceutical venture firm. He most recently served as Chairman and Interim Chief Executive Officer of Cima Labs, Inc., a public specialty pharmaceutical company, from May 2003 through its sale to Cephalon, Inc. in August 2004. He was the President and Chief Executive Officer of MacroMed, Inc., a privately owned drug delivery company, from February 2001 to December 2001, and also as director since 1998. Mr. Ratoff's experience includes serving as Executive Vice President and Chief Financial Officer of Brown-Forman Corporation, a public diversified manufacturer of consumer products, as well as fifteen years in a variety of senior financial positions with Bristol-Myers Squibb. Mr. Ratoff is currently a director of Novadel Pharma Inc.

Louis G. Cornacchia

Mr. Cornacchia has served as a director of Axonyx since February 2003. Mr. Cornacchia has extensive experience in managing several engineering consultancy companies. Mr. Cornacchia received a bachelor's degree in Electrical Engineering from Manhattan College in 1955. Between 1955 and 1963, Mr. Cornacchia was employed as an RF engineer at Hazeltine Electronics Corp., at the Loral Systems Design Team where he worked on design of countermeasures/reconnaissance systems, and subsequently was employed as Chief Engineer at Victory Electronics developing light imaging scopes for the U.S. Army. In 1963 Mr. Cornacchia joined Norden Systems where he worked as a Test Equipment Manager for the F111D avionics program. In 1969, Mr. Cornacchia formed Collins Consultants International, Ltd., an engineering consultancy providing services to Norden Systems and multiple defense engineering companies. In 1974, Mr. Cornacchia formed Charger Tech Services, another engineering services company. In 1987, Mr. Cornacchia formed Scinetics, an engineering consultancy that provides microwave wireless engineering services. Scinetics provides engineering services for mobile cellular and PCS wireless companies, assisting them in obtaining approvals for seamless wireless networks. Mr. Cornacchia is presently the President of Scinetics. Mr. Cornacchia has also served as Chairman of the board of directors of Reliance Bank, White Plains, New York (1992-1995) and as a member of the Advisory Board of Patriot National Bank, Stamford, Connecticut (1995-2000).

Steven H. Ferris, Ph.D.

Dr. Ferris has served as a director of Axonyx since January 2003. Dr. Ferris is a neuropsychologist, psychopharmacologist, and gerontologist who has been studying brain aging and AD for over thirty years. Dr. Ferris is the Friedman Professor of the Alzheimer's Disease Center in the Department of Psychiatry at New York University, or NYU, School of Medicine, Executive Director of NYU's Silberstein Institute for Aging and Dementia and Principal Investigator of their Alzheimer's Disease Center. Dr. Ferris has been at the NYU School of Medicine since 1973, where he has conducted a major research program focusing on cognitive assessment, early diagnosis and treatment of brain aging and AD. He has served as the Associate Editor in Chief of *Alzheimer Disease and Associated Disorders*, is a member of the Medical and Scientific Affairs Council of the national *Alzheimer's Association*, has served on several NIH peer review panels, and has been a member of the FDA Advisory Committee which reviews new drugs for AD. He has conducted more than 50 clinical trials in aging and dementia and has been a consultant to numerous pharmaceutical companies who are developing new treatments for AD.

Ralph Snyderman, M.D.

Dr. Ralph Snyderman has served as director of Axonyx since March 2004. Dr. Snyderman is currently Chancellor Emeritus at Duke University. Previously, he served as Chancellor for Health Affairs, Executive Dean of the School of Medicine, and James B. Duke Professor of Medicine, Duke

University Medical Center and President and Chief Executive Officer of the Duke University Health System, one of the few fully integrated health systems in the country. Additionally, Dr. Snyderman serves as a member of the board of directors of Proctor and Gamble Inc., Cardiome Pharma Corporation, and SAIC. Dr. Snyderman received his M.D., magna cum laude, in 1965 from the Downstate Medical Center of the State University of New York and he served his internship and residency in medicine at Duke. Pre-eminent in his field of immunology, Dr. Snyderman is internationally recognized for his research contributions to the understanding of inflammation that have led to numerous important discoveries published in nearly 350 manuscripts over the last 25 years.

Executive Officer Biographical Information

Gosse B. Bruinsma, M.D.

See above under " Director Biographical Information"

S. Colin Neill

Mr. Neill joined Axonyx Inc. in September 2003 as Chief Financial Officer and Treasurer and was named Secretary in January 2004. From April 2001 to September 2003, Mr. Neill had been an independent consultant assisting small development stage companies raise capital. Previously Mr. Neill served as Senior Vice President, Chief Financial Officer, Secretary and Treasurer of ClinTrials Research Inc., a global contract research organization in the drug development business, from 1998 to its successful sale in April 2001. Prior to that Mr. Neill served as Vice President and Chief Financial Officer of Continental Health Affiliates Inc. and its majority owned subsidiary Infu-Tech Inc., a network of health care companies focused on home health, long term care, assisted living and managed care. Mr. Neill's career experience has included that of Acting Vice President Finance and Chief Financial Officer of Pharmos Corporation, a biopharmaceutical company in the business of developing novel drug technologies. Earlier experience was gained as Vice President Finance and Chief Financial Officer of BTR Inc., a subsidiary of BTR plc, a British diversified manufacturing company, and Vice President Financial Services of The BOC Group Inc. an industrial gas company with substantial operations in the health care field. Mr. Neill served for four years with American Express Travel Related Services, firstly as chief internal auditor for worldwide operations and then as head of business planning and financial analysis. Mr. Neill began his career in public accounting with Arthur Andersen LLP in Ireland and later with Price Waterhouse LLP as a senior manager in New York City. He also served with Price Waterhouse for two years in Paris, France. In March 2004, Mr. Neill was designated as a director of OXIS and currently serves on the OXIS Board of Directors.

Mr. Neill graduated from Trinity College, Dublin with a first class honors degree in Business/Economics and he holds a masters degree in Accounting and Finance from the London School of Economics. He is both a Certified Public Accountant in New York State and a Chartered Accountant in Ireland.

Paul Feuerman

Mr. Feuerman joined Axonyx Inc. in June 2005 as General Counsel. Mr. Feuerman is a founding member of PharmAdvisors LLC, a consulting firm serving pharmaceutical and biopharmaceutical companies, and prior to joining Axonyx worked as an independent consultant. Formerly, he was Executive Vice President and General Counsel of Schein Pharmaceutical Inc., a New York Stock Exchange listed specialty pharma/generics company. Previously, Mr. Feuerman was associated with the law firm of Proskauer Rose LLP. He received his bachelor's degree from Trinity College and his juris doctorate from Columbia Law School.

Independence of the Axonyx Board of Directors

As required under applicable NASDAQ Marketplace Rules, a majority of the members of a listed company's board of directors must qualify as "independent," as affirmatively determined by the board of directors. Axonyx's board of directors consults with its counsel to ensure that its board of directors' determinations are consistent with all relevant securities and other laws and regulations regarding the definition of "independent," including those set forth in pertinent NASDAQ Marketplace Rules, as in effect time to time.

Consistent with these considerations, after review of all relevant transactions or relationships between each director or any of his family members, and Axonyx's senior management, Axonyx's independent registered public accounting firm and Axonyx, the board of directors affirmatively has determined that all of the directors are independent directors within the meaning of the applicable NASDAQ Marketplace Rules, except for Dr. Bruinsma, Axonyx's Chief Executive Officer, and Dr. Hausman, Axonyx's former Chief Executive Officer who currently serves as a consultant to Axonyx.

As required under applicable NASDAQ Marketplace Rules, in 2005 Axonyx's independent directors met in regularly scheduled executive sessions at which only independent directors were present.

Meetings of the Axonyx Board of Directors

Axonyx's board of directors met ten times during 2005. Each director attended 75% or more of the aggregate of the meetings of the board of directors and of the committees on which he served, held during the period for which he was a director or committee member, respectively.

Attendance at Axonyx annual meetings

Axonyx has adopted a policy encouraging its directors and nominees for directors to attend Axonyx's annual meetings of stockholders. Axonyx has scheduled a board meeting to coincide with the Axonyx annual meeting. All of Axonyx's directors then in office Dr. Bruinsma, Dr. Hausman, Mr. Ratoff, Mr. Cornacchia, Dr. Ferris and Dr. Snyderman attended Axonyx's annual meeting in 2005.

Axonyx Board Committees

The Axonyx board of directors has three standing committees: an audit committee, a compensation committee and a nominating/governance committee. The following table provides current membership and meeting information for 2005 for each of the committees of Axonyx's board of directors:

Name	Audit	Compensation	Nominating/ Governance
Gosse B. Bruinsma, M.D.			
Marvin S. Hausman, M.D.			
Louis G. Cornacchia	X	X(1)	
Steven H. Ferris, Ph.D.	X		X(2)
Steven B. Ratoff	X(3)	X	X
Ralph Snyderman, M.D.		X(1)	X
Total meetings in 2005	5	6	1

(1) Dr. Snyderman was succeeded as chairman of the compensation committee by Mr. Cornacchia in January 2006.

(2) Dr. Ferris is the chairman of the nominating/governance committee.

(3) Mr. Ratoff became chairman of the audit committee in June 2005, succeeding Gerard J. Vlak, Ph.D.

Below is a description of each committee of the Axonyx board of directors. Each of the committees has authority to engage legal counsel or other experts or consultants, as it deems appropriate to carry out its responsibilities. The Axonyx board of directors has determined that each current member of each committee meets the applicable rules and regulations regarding independence and that each member is free of any relationship that would interfere with his individual exercise of independent judgment.

Axonyx Audit Committee

Three directors comprise the audit committee of the Axonyx board of directors: Mr. Cornacchia, Dr. Ferris and Mr. Ratoff. The audit committee oversees Axonyx's corporate accounting and financial reporting process. The audit committee evaluates the performance and assesses the qualifications of the independent registered public accounting firm that audits Axonyx's financial statements; determines and approves the engagement of the independent registered public accounting firm; determines whether to retain or terminate the existing independent registered public accounting firm or to appoint and engage new independent registered public accounting firm; reviews and approves the retention of the independent registered public accounting firm to perform any proposed permissible non-audit services; monitors the rotation of partners of the independent registered public accounting firm on Axonyx's audit engagement team as required by law; confers with management and the independent registered public accounting firm regarding the effectiveness of internal controls over financial reporting; establishes procedures, as required under applicable law, for the receipt, retention and treatment of complaints regarding accounting, internal accounting controls or auditing matters and the confidential and anonymous submission by employees of concerns regarding questionable accounting or auditing matters; reviews the financial statements to be included in Axonyx's Annual Report on Form 10-K; and discusses with management and the independent registered public accounting firm the results of the annual audit and Axonyx's quarterly financial statements. The audit committee of Axonyx's board of directors has adopted a written charter that may be found in the Corporate Governance materials of the "Investors" section of Axonyx's website at *www.axonyx.com*.

All communications directed to Axonyx's audit committee that relate to questionable accounting or auditing matters involving Axonyx will be promptly and directly forwarded to the audit committee in accordance with Axonyx's policy for "Reporting Violations of Company Policies and Receipt of Complaints Regarding Financial Reporting or Accounting Issues", or its Whistleblower Policy, under the Axonyx Inc. Amended and Restated Code of Business Conduct and Ethics (November 2005), or Code of Conduct. The Code of Conduct is available in the Corporate Governance materials of the "Investors" section of Axonyx's website at *www.axonyx.com*.

Axonyx's board of directors annually reviews the NASDAQ listing standards definition of independence for its audit committee's members and has determined that all members of its audit committee are independent (as independence is currently defined in NASDAQ Marketplace Rule 4200(a)(15) and SEC Rule 10A-3) and meet NASDAQs financial sophistication requirements. Axonyx's board of directors has determined that Mr. Ratoff qualifies as an "audit committee financial expert," as defined in applicable SEC rules. Axonyx's board of directors made a qualitative assessment of Mr. Ratoff's level of knowledge and experience based on a number of factors.

Axonyx Compensation Committee

Three directors comprise the Axonyx compensation committee: Mr. Cornacchia, Mr. Ratoff and Dr. Snyderman. The compensation committee reviews and approves Axonyx's overall compensation

strategy and policies. The compensation committee reviews and approves the compensation and other terms of employment of Axonyx's Chief Executive Officer; reviews and approves the compensation and other terms of employment of the other executive officers; reviews and approves corporate performance goals and objectives relevant to the compensation of Axonyx executive officers and other senior management; and administers Axonyx's equity incentive and stock purchase plans and other benefit plans and programs. All members of the compensation committee are independent (as currently defined in NASDAQ Marketplace Rule 4200(a)(15)). Axonyx's compensation committee's charter may be found in the Corporate Governance materials of the "Investors" section of Axonyx's website at *www.axonyx.com*.

Axonyx Nominating/Governance Committee

Three directors comprise the Axonyx nominating/governance committee: Dr. Ferris, Mr. Ratoff and Dr. Snyderman. The nominating/governance committee is responsible for identifying, reviewing and evaluating candidates to serve as directors consistent with criteria approved by the Axonyx board of directors, reviewing and evaluating incumbent directors; selecting candidates for election to the Axonyx board of directors; making recommendations to the Axonyx board of directors regarding the membership of the committees of the Axonyx board of directors; assessing the performance of management and the Axonyx board of directors, and developing a set of corporate governance principles. Axonyx's nominating/governance committee charter may be found in the Corporate Governance materials of the "Investors" section of Axonyx's website at *www.axonyx.com*. All members of Axonyx's nominating/governance committee are independent (as currently defined in NASDAQ Marketplace Rule 4200(a)(15)).

Axonyx's nominating/governance committee believes that candidates for director should have certain minimum qualifications, including being able to read and understand basic financial statements, being over 21 years of age and having the highest personal integrity and ethics. The Axonyx nominating/governance committee also considers such factors as possessing relevant expertise upon which to be able to offer advice and guidance to management, having sufficient time to devote to Axonyx's affairs, demonstrated excellence in his or her field, having the ability to exercise sound business judgment and having the commitment to rigorously represent the long-term interests of Axonyx's stockholders. The Axonyx nominating/governance committee retains the right to modify these qualifications from time to time. Candidates for director nominees are reviewed in the context of the current composition of the Axonyx board of directors, Axonyx's operating requirements and the long-term interests of its stockholders. In conducting this assessment, the Axonyx nominating/governance committee considers diversity, age, skills, and such other factors as it deems appropriate given the current needs of the Axonyx board of directors to maintain a balance of knowledge, experience and capability. In the case of incumbent directors whose terms of office are set to expire, the Axonyx nominating/governance committee reviews such directors' overall service during their term, including the number of meetings attended, level of participation, quality of performance, and any other relationships and transactions that might impair such directors' independence. In the case of new director candidates, the Axonyx nominating/governance committee also determines whether the nominee must be independent under applicable NASDAQ and SEC rules. The Axonyx nominating/governance committee uses its network of contacts to compile a list of potential candidates, but may also engage, if it deems appropriate, a professional search firm. The Axonyx nominating/governance committee conducts any appropriate and necessary inquiries into the backgrounds and qualifications of possible candidates after considering the function and needs of the board of directors. The Axonyx nominating/governance committee meets to discuss and consider such candidates' qualifications and then selects a nominee by majority vote. To date, the Axonyx nominating/governance committee has not paid a fee to any third party to assist in the process of identifying or evaluating director candidates. To date, the Axonyx nominating/governance committee has not received any director nominee from a stockholder or stockholders.

The Axonyx nominating/governance committee will consider director candidates recommended by Axonyx's stockholders. The Axonyx nominating/governance committee does not intend to alter the manner in which it evaluates candidates, including the minimum criteria set forth above, based on whether the candidate was recommended by an Axonyx stockholder. Axonyx stockholders who wish to recommend individuals for consideration by the Axonyx nominating/governance committee to become nominees for election to the Axonyx board of directors may do so by delivering a written recommendation to the Axonyx nominating/governance committee at the following address: Axonyx Inc., 500 Seventh Avenue, 10th Floor, New York, New York 10018. Such recommendations must be received by the nominating/governance committee at least 120 days prior to the anniversary date of the mailing of Axonyx's proxy statement for its last annual meeting of stockholders. Submissions must include the full name of the proposed nominee, a description of the proposed nominee's business experience for at least the previous five years, complete biographical information, a description of the proposed nominee's qualifications as a director and a representation that the nominating stockholder is a beneficial or record owner of Axonyx's stock. Any such submission must be accompanied by the written consent of the proposed nominee to be named as a nominee and to serve as a director if elected.

Compensation to Directors

In June of 2005, Axonyx adopted the following policy to compensate outside directors: (i) the chairman of the audit committee receives compensation of $25,000 annually, (ii) the chairman of the compensation committee and the nominating committee each receives compensation of $15,000 annually and (iii) all outside directors also receive $50,000 annually for their services on the board. In addition, each outside director receives an annual option grant of 50,000 stock options. Axonyx has also agreed to reimburse its directors for reasonable expenses incurred in attending meetings of the board of directors and its committees. Individual directors may elect to receive stock options in lieu of their director or chairman fees.

In 2005, Dr. Ferris and Mr. Cornacchia received 50,000 stock options each and Dr. Snyderman received 56,912 stock options for board and committee service, and Mr. Ratoff received 169,107 stock options in connection with joining the board and his election to receive stock options in lieu of his director and audit committee chairman fees. Outside directors may be granted stock options on a discretionary basis. In February 2006, Mr. Ratoff received 75,000 stock options.

On August 23, 2006, each outside director received 16,500 options as his annual option grant, and Mr. Ratoff received an additional 32,700 stock options in lieu of a portion of his director and audit committee chairman fees.

Axonyx Code of Business Conduct and Ethics

In November 2005, Axonyx adopted a revised Code of Business Conduct and Ethics that is applicable to all employees and specifically applicable to Axonyx's Chief Executive Officer and President, Chief Financial Officer and Controllers. The Code of Business Conduct and Ethics is available in the "Investors" section of Axonyx's website at *www.axonyx.com*. If Axonyx makes any substantive amendments to the Code of Business Conduct and Ethics or grants any waiver from a provision of the Code of Business Conduct and Ethics to the principal executive, financial or accounting officers, Axonyx will promptly disclose the nature of the amendment or waiver on its website.

REPORT OF THE AUDIT COMMITTEE OF THE AXONYX BOARD OF DIRECTORS

The following is the report of the audit committee of the board of directors of Axonyx with respect to Axonyx's audited financial statements for the fiscal year ended December 31, 2005, included in Axonyx's Annual Report on Form 10-K, filed with the Securities and Exchange Commission on March 16, 2006. The information contained in this report shall not be deemed to be "soliciting material" or to be "filed" with the Securities and Exchange Commission, nor shall such information be incorporated by reference into any future filing under the Securities Act, or the Exchange Act, except to the extent that Axonyx specifically incorporates it by reference in such filing.

Review With Management

The members of the audit committee reviewed and discussed the audited financial statements with certain members of the management of Axonyx.

Review and Discussions With Independent Accountants

The audit committee of the board of directors of Axonyx met on February 28, 2006 to review the financial statements for the fiscal year ended December 31, 2005 audited by Eisner LLP, Axonyx's independent auditors. The audit committee discussed with a representative of Eisner LLP the matters required to be discussed by SAS 61. The audit committee received the written disclosures and the letter from Eisner LLP required by Independence Standards Board Standard No. 1 and has discussed with Eisner LLP its independence.

Conclusion

Based on the above review and discussions, the audit committee recommended to the Axonyx board of directors that the audited financial statements for the fiscal year ended December 31, 2005 be included in Axonyx's Annual Report on Form 10-K for the fiscal year ended December 31, 2005 for filing with the Securities and Exchange Commission.

The audit committee of Axonyx's board of directors:

Steven B. Ratoff, Chairman
Louis G. Cornacchia
Steven H. Ferris, Ph.D.

REPORT OF THE COMPENSATION COMMITTEE OF THE AXONYX BOARD OF DIRECTORS

The compensation committee of the Axonyx board of directors, which is composed of outside directors, is responsible for setting and administering the policies and programs that govern compensation. The Axonyx compensation committee was originally formed in January 1999. Prior to that time no executive compensation, other than limited consultant fees, was paid. For 2005, Axonyx's executive compensation consisted of two components: (1) an annual component, i.e., salaries, and the potential for year end bonuses, and (2) a long-term component, i.e., stock options. The compensation committee bases its decisions on executive compensation based on individual assessments of the amount of compensation required to attract individuals to fill positions in Axonyx and motivate those individuals to focus on achieving the objectives of Axonyx. The compensation committee seeks to reward the management team if Axonyx achieves its corporate objectives, and it also recognizes meaningful differences in individual performance and offers the opportunity for executives to earn rewards when merited by individual performance.

Annual Component. Salaries for executive officers are determined by the compensation committee with reference to the job description and a general assessment of the executive's performance, experience and potential. Year-end bonuses may be granted subject to an assessment of an executive's performance against established objectives. The compensation committee establishes these salaries annually or semi-annually, depending upon the individual.

Long-Term Component. The compensation committee awarded stock options or contingent stock options to its executive officers in December 2005 based on the compensation committee's assessment of the accomplishment of corporate and individual objectives. These options provide the opportunity to buy a number of shares of Axonyx common stock at a price equal to the market price of the stock on the date of compensation committee approval of the grant. These options are generally subject to a three-year vesting schedule, so that they become exercisable in annual installments during the participant's period of service with Axonyx. The compensation committee believes that, because these options gain value only to the extent that the price of Axonyx common stock increases above the option exercise price during the term of the optionee's service, management's equity participation offers a significant incentive and helps to create a long-term partnership between management/owners and other stockholders. The compensation committee believes that the grant of stock options should reflect Axonyx's success in meeting objectives established by Axonyx's board of directors, each individual officer's ability to attain such objectives and such officer's contribution towards the attainment of past objectives.

Chief Executive Officer Compensation. Dr. Bruinsma succeeded Dr. Hausman as Axonyx's Chief Executive Officer in March of 2005 and received a base salary for 2005 of $412,500. In setting the total compensation package of Dr. Bruinsma, the compensation committee sought to make his compensation competitive when compared with the base salary levels in effect for similarly situated chief executive officers of comparable companies and competitive with the surveyed values. As with other executive officers of Axonyx, Dr. Bruinsma did not receive a bonus in 2005 because Axonyx deferred awarding bonuses to management in 2005 to preserve capital pending its evaluation of strategic alternatives. Bonuses for 2005 and 2006 will be considered and awarded in the fourth quarter 2006. The compensation committee also strived to assure that a significant percentage of Dr. Bruinsma's total compensation package is tied to Axonyx's performance. Accordingly, in October of 2005, Dr. Bruinsma received a grant of 200,000 stock options to purchase shares of Axonyx's common stock at an exercise price of $1.05 per share, which vest ratably through 2008.

The compensation committee has reviewed all components of Dr. Bruinsma's compensation, including base salary, annual cash bonus, long-term incentive awards, accumulated realized and unrealized stock option gains, the accumulated payout obligations under Axonyx's 401(k) and under the change of control agreement. A summary setting forth all of the components of Dr. Bruinsma's

compensation was prepared and reviewed by the compensation committee as part of its annual review of Dr. Bruinsma's compensation. Based on this review, the compensation committee finds Axonyx's chief executive officer's total compensation (and in the case of a change of control, the potential payout) in the aggregate to be reasonable and not excessive.

Compliance with Internal Revenue Code Section 162(m). As a result of Section 162(m) of the Internal Revenue Code of 1986, as amended, Axonyx will not be allowed a federal income tax deduction for compensation paid to certain executive officers, to the extent that compensation exceeds $1 million per officer in any one calendar year. This limitation will apply to all compensation which is not considered to be performance-based. Compensation which does qualify as performance-based compensation will not have to be taken into account for purposes of this limitation. The Amended and Restated 2000 Stock Option Plan (as well as the Second Amended and Restated 2000 Stock Option Plan), contains certain provisions which permit Axonyx, on a grant-by-grant basis, to make awards of stock options (with an exercise price equal to or greater than fair market value of the Axonyx common stock on the date of grant) that will qualify as performance-based compensation so that any compensation deemed paid in connection with those options will be excluded from the 162(m) limitation. Axonyx's 1998 Stock Option Plan does not contain provisions to qualify stock options under that plan as performance-based compensation. The compensation committee considers this among all factors taken into account when setting compensation policy and making individual compensation decisions.

The compensation committee does not expect that the compensation paid to any of Axonyx's executive officers for 2006 will exceed the $1 million limit per officer; however, it is possible that in the future the deductibility of compensation may be limited by Internal Revenue Code Section 162(m).

The compensation committee of Axonyx's board of directors:

Louis G. Cornacchia, Chairman
Steven B. Ratoff
Ralph Snyderman, M.D.

Principal Accountant Fees and Services

Audit Fees

Aggregate fees billed for professional services rendered by Eisner LLP in connection with its audit of Axonyx's consolidated financial statements as of and for the years ended December 31, 2005 and 2004 and its reviews of Axonyx's unaudited condensed consolidated interim financial statements and for SEC consultations and filings for the years ended December 31, 2005 and 2004 were $122,000 and $153,000, respectively.

Audit-Related Fees

The audit-related fees billed for professional services rendered by Eisner LLP for the years ended December 31, 2005 and 2004 were $93,500 and $26,500, respectively. These fees were primarily for Sarbanes-Oxley compliance.

Tax Fees

Aggregate fees billed for professional services rendered by Eisner LLP in connection with its income tax compliance and related tax services for the years ended December 31, 2005 and 2004 were $10,000 and $11,000, respectively. These tax fees included (1) a tax return preparation fee, (2) fees related to New York City desk audit and amended return and (3) fees related to assistance with the filing of a withdrawal from Connecticut.

All Other Fees

There were no other professional services rendered to Axonyx by Eisner LLP in 2005 or 2004.

Pre-Approval Policy

The charter of Axonyx's audit committee requires that the committee pre-approve all auditing services and permitted non-audit services (including the fees and terms thereof) to be performed for Axonyx by its independent auditor, subject to any exception permitted by law or regulation. Axonyx's audit committee pre-approved all auditing services and permitted non-audit services rendered by Eisner LLP in 2005.

Axonyx Proposal No. 7: Approval of Possible Adjournment of the Axonyx annual meeting

If Axonyx fails to receive a sufficient number of votes to approve Axonyx Proposal Nos. 1, 2, 3 and 4 Axonyx may propose to adjourn the Axonyx annual meeting, for a period of not more than 30 days, for the purpose of soliciting additional proxies to approve Axonyx Proposal Nos. 1, 2, 3 and 4. Axonyx currently does not intend to propose adjournment at the Axonyx annual meeting if there are sufficient votes to approve Axonyx Proposal Nos. 1, 2, 3 and 4. The affirmative vote of the holders of a majority of the shares of Axonyx common stock having voting power present in person or represented by proxy at the Axonyx annual meeting is required to approve the adjournment of the Axonyx annual meeting for the purpose of soliciting additional proxies to approve Axonyx Proposal Nos. 1, 2, 3 and 4.

THE AXONYX BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT AXONYX'S STOCKHOLDERS VOTE "FOR" AXONYX PROPOSAL NO. 7 TO ADJOURN THE ANNUAL MEETING, IF NECESSARY, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF AXONYX PROPOSAL NOS. 1, 2, 3 AND 4.

EXECUTIVE COMPENSATION

Executive Officers

The executive officers of Axonyx are Gosse B. Bruinsma, M.D., Chief Executive Officer, President and Chief Operating Officer (and President of Axonyx Europe BV), and S. Colin Neill, Chief Financial Officer, Treasurer and Secretary.

Summary Compensation

The table below sets forth the aggregate annual and long-term compensation paid by Axonyx during its last three fiscal years ended December 31, 2005, December 31, 2004 and December 31, 2003 to its Chief Executive Officer and each of the highest paid executive officers of Axonyx whose annual salary and bonus for fiscal year 2005 exceeded $100,000, who are collectively referred to as the "Named Executive Officers".

Summary Compensation Table

		Annual Compensation(1)			Long-Term Compensation	
Name and Principal Position	**Fiscal Year**	**Salary**	**Bonus**	**Other Annual Compensation**	**Restricted Stock Award(s)**	**Securities Underlying Options (#)(3)**
		($)	**($)**	**($)**	**($)**	
Marvin S. Hausman, M.D.	2005	$ 335,042		$ 114,151		
Director(2)	2004	$ 394,375	$ 200,000	$ 54,376		200,000
	2003	$ 250,000	$ 175,000	$ 31,719		325,000
Gosse B. Bruinsma, M.D.	2005	$ 412,500		$ 31,250		200,000
President and Chief Executive Officer(4)	2004	$ 372,000	$ 150,000	$ 31,000		100,000
	2003	$ 253,000	$ 100,000	$ 28,250		300,000
S. Colin Neill	2005	$ 247,500		$ 16,989		50,000
Chief Financial Officer, Secretary and Treasurer(5)	2004	$ 212,000	$ 100,000	$ 10,000		50,000
	2003	$ 52,000	$ 10,000	$ 2,915		210,000
Paul M. Feuerman	2005	$ 160,385		$ 5,743		150,000
General Counsel(6)						

(1) No Named Executive Officer other than Dr. Hausman was paid other annual compensation in an amount exceeding the lesser of either $50,000 or 10% of the total annual salary and bonus for the Named Executive Officer.

(2) Axonyx reimbursed Dr. Hausman $38,517 to cover costs of maintaining an office and related support costs in Portland, Oregon. Dr. Hausman stepped down as Chief Executive Officer of Axonyx effective March 3, 2005 and as chairman of Axonyx's board or directors in September 2005. In September 2005, Axonyx entered into a one year consulting agreement with Dr. Hausman at the rate of $20,000 per month through September 15, 2006. $70,000 was paid under this agreement in 2005. Dr. Hausman received a $5,634 employer 401k matching contribution.

(3) The number of options granted for certain Named Executive Officers in 2003 have been adjusted to include options granted in 2003 under Axonyx's 2000 Stock Option Plan which were contingent upon the January 1, 2004 increase in the number of shares reserved for issuance under the 2000 Stock Option Plan by 750,000 shares per the evergreen provision. The increase in options granted for each Named Executive Officer in 2003 due to this adjustment are as follows: Marvin S. Hausman, M.D. 125,000; Gosse B. Bruinsma, M.D. 100,000 and S. Colin Neill 93,620.

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(4)

Dr. Bruinsma resides in The Netherlands and operates from the Axonyx Europe BV offices in Leiden, The Netherlands and is therefore compensated in the local currency, i.e. Euro. Dr. Bruinsma's salary for 2005 was Euro 330,000 and his expense allowance was Euro 25,000. These amounts are reflected in the table above at the average dollar/euro exchange rate of 1.25 for 2005, 1.24 for 2004, and 1.13 for 2003. Dr. Bruinsma succeeded Dr. Hausman as Chief Executive Officer of Axonyx on March 3, 2005.

(5)

S. Colin Neill became an employee of Axonyx in September 2003. Mr. Neill was reimbursed $10,000 for various business expenses including life insurance and a $6,989 employer 401k matching contribution.

(6)

Paul Feuerman received a $5,743 employer 401k matching contribution.

Option Grants in Fiscal Year 2005

The following table sets forth certain information with respect to option grants to Axonyx's Named Executive Officers in 2005. All of the grants were made under the Axonyx 2000 Stock Option Plan. Axonyx has not granted any stock appreciation rights.

	Individual Grants				Potential Realizable Value at Assumed Annual Rates of Stock Price Appreciation for Option Term(1)	
Name	**Number of securities underlying Options Granted (#)**	**Percent of total options granted to employees in fiscal year**	**Exercise or base price ($/Sh)**	**Expiration date**	**5% ($)**	**10% ($)**
Gosse B. Bruinsma, M.D.(2)	200,000	41.9%	$ 1.05	10/17/15	$ 132,068	$ 334,686
S. Colin Neill(3)	50,000	10.5%	$ 1.05	10/17/15	$ 33,017	$ 83,671
Paul M. Feuerman(4)	150,000	31.4%	$ 1.27	9/11/15	$ 119,804	$ 303,608

(1)

These amounts represent hypothetical gains that could be achieved for the respective options at the end of the ten year option term. The assumed 5% and 10% rates of compounded stock price appreciation are mandated by rules of the Securities and Exchange Commission and do not represent Axonyx's estimate of the future market price of Axonyx common stock.

(2)

On October 18, 2005, Axonyx granted 200,000 incentive stock options exercisable at $1.05 per share to Gosse B. Bruinsma, M.D., with 50,000 options vesting on October 18, 2005, 2006, 2007 and 2008.

(3)

On October 18, 2005, Axonyx granted 50,000 incentive stock options exercisable at $1.05 per share to S. Colin Neill, with 12,500 options vesting on October 18, 2005, 2006, 2007 and 2008.

(4)

On September 12, 2005, Axonyx granted 150,000 incentive stock options exercisable at $1.27 per share to Paul M. Feuerman, with 37,500 options vesting on September 12, 2005, 2006, 2007 and 2008.

Aggregate Option Exercises in Fiscal Year 2005 and Year End Option Values

The following table sets forth the number and value of unexercised options held by the Named Executive Officers as of December 31, 2005. No options were exercised by any of the Named Executive Officers in 2005.

	Number of securities underlying unexercised options at fiscal year end #	Value of unexercised in-the-money options at fiscal year end ($)(1)
Name	**Exercisable/ unexercisable**	**Exercisable/ unexercisable**
Marvin S. Hausman, M.D., Chairman & Chief Executive Officer(2)	743,750/181,250	$ 0/0
Gosse B. Bruinsma, M.D., President & Chief Operating Officer	650,000/275,000	$ 0/0
S. Colin Neill, Chief Financial Officer	195,000/115,000	$ 0/0
Paul M. Feurman, General Counsel	37,500/112,500	$ 0/0

(1) Dollar amounts reflect the net values of outstanding stock options computed as the difference between $0.83 (the fair market value at December 31, 2005) and the exercise price of the options.

(2) Dr. Bruinsma replaced Dr. Hausman as Chief Executive Officer of Axonyx effective March 3, 2005.

Equity Compensation Plan Information

The following table sets forth information about the Axonyx common stock available for issuance under Axony's compensatory plans and arrangements as of December 31, 2005.

Plan Category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights.	(b) Weighted-average exercise price of outstanding options, warrants, and rights	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plan approved by security holders (1)	944,100	$ 5.84	
Equity compensation plan approved by security holders (2)	4,134,000	$ 3.60	2,689,000
Equity compensation plans not approved by security holders	242,500(3)	$ 3.01	
Total	5,320,600	$ 3.98	2,689,000

(1)

As of February 28, 2006, Axonyx has granted options to purchase an aggregate of 944,100 shares of common stock under its 1998 Stock Option Plan. As of December 31, 2005, no options are available for future grant under the 1998 plan. The plan terminated on January 15, 2003.

(2)

As of February 28, 2006, Axonyx has granted options to purchase an aggregate of 4,134,019 shares (amount rounded in table to nearest thousand) of common stock under its 2000 Stock Option Plan. The number of shares reserved for issuance pursuant to options under the 2000 Stock Option

Plan, as amended on June 14, 2002, was increased by 750,000 shares on January 1, 2003 pursuant to an evergreen provision in the stock option plan. 318,620 options in 2003 were issued contingent upon the January 1, 2004 evergreen provision that will increase the stock option plan shares by 750,000 shares. On March 30, 2004, Axonyx amended its 2000 Plan to increase the aggregate number of shares from 3,500,000 to 7,500,000. Stockholder approval for the increase was received in June 2004.

(3) Axonyx has granted an aggregate of 242,500 options to consultants and advisors outside of its 1998 and 2000 stock option plans.

Employment Contracts with Executive Officers and Termination of Employment and Change of Control Arrangements

Axonyx does not have employment contracts with any of its Named Executive Officers, except as follows:

Gosse B. Bruinsma, M.D. is Axonyx's President and Chief Executive Officer and a member of its board of directors. On September 21, 2002, Axonyx signed an employment agreement with Dr. Bruinsma under which Dr. Bruinsma agreed to serve as President of Axonyx Europe BV, a wholly owned subsidiary of Axonyx, and Chief Operating Officer of Axonyx. This agreement has been renewed and now extends through September 2006. Dr. Bruinsma's current annual base salary has been set at Euro 330,000. In addition, pursuant to the terms of his employment agreement, Dr. Bruinsma is entitled to receive Euro 25,000 each year for the reimbursement of certain anticipated expenses, including, without limitation, expenses related to the maintenance and use of a home office and personal equipment, health insurance, disability insurance, life insurance, pension distribution and auto lease premiums. The agreement also provides that if it is not renewed by Axonyx, Dr. Bruinsma is entitled to receive continued salary and benefits with undiminished terms and conditions for a six-month period. Shortly following the execution of the merger agreement and in anticipation of the merger, Axonyx elected not to renew Dr. Bruinsma's employment agreement. Consequently, Dr. Bruinsma will be entitled to receive continued salary and benefits with undiminished terms and conditions for six months following expiration of his employment agreement, or through March 21, 2007.

In March 2004, following approval of the compensation committee of Axonyx's board of directors as well as Axonyx's board of directors itself, Axonyx entered into change of control agreements with Gosse B. Bruinsma, M.D., its President and Chief Executive Officer and a member of its board of directors, and S. Colin Neill, its Chief Financial Officer. In September 2005, Axonyx entered into a change of control agreement with Paul Feuerman, its General Counsel. Each of the change of control agreements was subsequently amended on November 30, 2005. Under these agreements, as amended, each executive will be entitled to receive certain severance benefits if his employment is terminated under either of the following circumstances:

- the executive's employment is terminated by Axonyx without cause (as described below) at any time during the period from 90 days prior to the commencement or public announcement of a change of control, such as the merger, until one year after a change of control; or

- the executive's employment is terminated by the executive for good reason (as described below) at any time during the one-year period immediately following the occurrence of a change of control.

For purposes of these agreements, "cause" is generally defined to mean: (a) the executive's willful failure to perform the duties of his employment (other than as a result of the executive's incapacity due to physical or mental illness) for at least 10 days after a demand for substantial performance, (b) the executive's engaging in negligent or willful misconduct in carrying out the duties of his or her

employment or conduct injurious to Axonyx or any of its affiliates, (c) the executive's conviction of, or entering a plea of guilty, nolo contendere (or similar plea) to a crime that constitutes a felony or any crime of moral turpitude, (d) the executive's directly or indirectly selling, passing on or otherwise using or disclosing without permission any confidential information of Axonyx; or (e) the executive's direct or indirect participation in business activities in competition with Axonyx.

For purposes of these agreements, "good reason" is generally defined to mean: (a) a material diminution in the nature of the executive's authority, duties, responsibilities or status, from those in effect immediately prior to the change of control, (b) the required relocation of the executive's place of employment to a location in excess of thirty miles from his or her place of employment at the time of his termination, or (c) any substantial reduction by Axonyx in the executive's base salary, bonus opportunities, profit sharing opportunities, or other incentive opportunities from those in effect immediately prior to the change of control.

For purposes of these agreements, a "change of control" is generally defined to mean: (a) an acquisition by any person of 50% or more of the voting power of Axonyx's securities, (b) a change in at least a majority of the members of Axonyx's current Board of Directors, (c) approval by Axonyx's stockholders of a merger, consolidation or reorganization involving Axonyx, subject to certain exceptions, a complete liquidation or dissolution of Axonyx or a sale of all or substantially all of Axonyx's assets. Stockholder approval of the merger will constitute a "change of control" for purposes of these agreements.

In the event of an executive's qualifying termination of employment, the executive will be entitled to receive the following:

a lump sum cash payment equal to the sum of (a) 200% of the executive's highest annual base salary in effect during the one year period immediately preceding his resignation or termination, plus (b) 40% of the executive's base salary at the time of termination or resignation in the case of Dr. Bruinsma and 30% of the executive's base salary at the time of termination or resignation in the case of Messrs. Neill and Feuerman;

the right to continue participation for a one-year period in any group health plan sponsored by Axonyx in which the executive was participating on the date of his termination or resignation, at a cost to the executive equal to the amount charged by Axonyx to its then-current employees; and

the immediate accelerated vesting of all unvested options held by the executive and the lapse of all post-termination exercise period restrictions applicable to the executive's outstanding options, such that all of the executive's options shall become fully vested and shall remain outstanding and exercisable until their respective expiration dates.

For an estimate of the value of the benefits that will become payable to Dr. Bruinsma as a result of the non-renewal of his employment agreement and an estimate of certain of the benefits that may become payable to Dr. Bruinsma and Messrs. Neill and Feuerman under the change of control agreements, please see the section entitled "Summary Interests of Certain Directors, Officers and Affiliates of Axonyx and TorreyPines" in this joint proxy statement/prospectus.

In addition, all options granted under the 1998 Stock Option Plan and the 2000 Stock Option Plan, including those to Axonyx's executive officers, provide for accelerated vesting upon a change of control, among other events. Stockholder approval of the merger will constitute a "change of control" for purposes of these agreements. For more information regarding the acceleration of vesting of Axonyx stock options granted to its directors and executive officers please see the section entitled "Summary Interests of Certain Directors, Officers and Affiliates of Axonyx and TorreyPines" in this joint proxy statement/prospectus.

Axonyx's Compensation Committee Interlocks and Insider Participation

The members of the compensation committee of Axonyx's board of directors during 2005 and through the record date were Dr. Ferris, Mr. Michael A. Griffith (until his resignation from the board in April 2005), Mr. Ratoff (since May 2005), Mr. Cornacchia and Dr. Snyderman. None of the members of the compensation committee of Axonyx's board of directors has ever been an officer or employee of Axonyx or any of its subsidiaries, nor have they had a relationship with Axonyx requiring disclosure under the applicable rules of the SEC.

PERFORMANCE GRAPH

Set forth below is a graph comparing the cumulative total stockholder return of $100 invested in Axonyx common stock on December 31, 2000 through December 31, 2005 with the cumulative total return of $100 invested in the Nasdaq Stock Market (U.S.) Index and the Nasdaq Biotechnology Index calculated similarly for the same period.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN
AMONG AXOYNX INC., THE NASDAQ STOCK MARKET (U.S.) INDEX
AND THE NASDAQ BIOTECHNOLOGY INDEX

MATTERS BEING SUBMITTED TO A VOTE OF TORREYPINES STOCKHOLDERS

TorreyPines Proposal No. 1: Adoption of the Merger Agreement

At the TorreyPines special meeting and any adjournment or postponement thereof, TorreyPines stockholders will be asked to consider and vote upon a proposal to adopt the merger agreement. The merger agreement provides that at the effective time of the merger, merger sub will be merged with and into TorreyPines. Upon the consummation of the merger, TorreyPines will continue as the surviving corporation and will be a wholly owned subsidiary of Axonyx. The terms of, reasons for and other aspects of the merger agreement are described in detail in the other sections of this joint proxy statement/prospectus.

Required Vote

TorreyPines cannot complete the merger unless the merger agreement is adopted by the affirmative vote of (a) the holders of a majority of the shares of TorreyPines common stock and TorreyPines preferred stock outstanding on the record date and entitled to vote at the TorreyPines special meeting, voting as a single class and on an as-converted basis, and (b) the holders of two-thirds of the shares of TorreyPines preferred stock outstanding on the record date and entitled to vote at the TorreyPines special meeting, voting as a single class and on an as-converted basis.

TORREYPINES' BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE "FOR" THE ADOPTION OF THE MERGER AGREEMENT

TorreyPines Proposal No. 2: Approval of Name Change

At the TorreyPines special meeting and any adjournment or postponement thereof holders of TorreyPines stock will be asked to approve the amendment to TorreyPines' certificate of incorporation attached to this joint proxy statement/prospectus as *Annex I* to change the name of the corporation from "TorreyPines Therapeutics Inc." to "TPTX, Inc." upon consummation of the merger. The reason for the corporate name change is that in order to permit Axonyx to change its name from "Axonyx Inc." to "TorreyPines Therapeutics, Inc.," TorreyPines must first release the name so that it will be available for Axonyx to utilize. This will allow Axonyx the ability to change its name to "TorreyPines Therapeutics, Inc." which management believes will allow for brand recognition of TorreyPines' product candidates and product candidate pipeline following the consummation of the merger.

Insofar as Axonyx will not change its name to "TorreyPines Therapeutics, Inc." if the merger is not been completed, the proposed name change and the amendment of TorreyPines' certificate of incorporation, even if approved by the TorreyPines' stockholders at the TorreyPines special meeting, will only be filed with the office of the Secretary of State of the State of Delaware, and will therefore only become effective, if the merger is consummated.

The affirmative vote of holders of (a) the holders of a majority of the shares of TorreyPines common stock and TorreyPines preferred stock outstanding on the record date and entitled to vote at the TorreyPines special meeting, voting as a single class and on an as-converted basis, and (b) the holders of two-thirds of the shares of TorreyPines preferred stock outstanding on the record date and entitled to vote at the TorreyPines special meeting, voting as a single class and on an as-converted basis is required to approve the amendment to TorreyPines' certificate of incorporation to change the name "TorreyPines Therapeutics, Inc." to "TPTX, Inc."

TORREYPINES' BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE "FOR" THE NAME CHANGE.

TorreyPines Proposal No. 3: Adjournment of the TorreyPines Special Meeting, if Necessary, to Solicit Additional Proxies if There are Not Sufficient Votes in Favor of the Adoption of the Merger Agreement

At the TorreyPines special meeting and any adjournment or postponement thereof, TorreyPines stockholders will be asked to consider and vote upon a proposal to adjourn the TorreyPines special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the adoption of the merger agreement.

Required Vote

The adjournment of the TorreyPines special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the adoption of the merger agreement requires the affirmative vote of the holders of a majority of the stock having voting power present in person or by proxy at the TorreyPines special meeting.

TORREYPINES' BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE "FOR" THE ADJOURNMENT OF THE TORREYPINES SPECIAL MEETING, IF NECESSARY, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF THE ADOPTION OF THE MERGER AGREEMENT.

AXONYX'S BUSINESS

Axonyx Business Strategy and Drug Development Programs

Axonyx is a biopharmaceutical company, specializing in central nervous system, or CNS, neurodegenerative diseases and disorders, engaged in the business of acquiring patent rights to clinical stage compounds, compounds with strong proof of concept data and compounds ready for proof of concept validation with convincing scientific rationale, or potentially another company with similar rights. Axonyx further develops these compounds and then seeks to out-license or partner them. Axonyx has acquired patent rights to three main classes of therapeutic compounds designed for the treatment of AD, Mild Cognitive Impairment, and related diseases. Axonyx has acquired patent rights to a class of potential therapeutic compounds designed for the treatment of prion related diseases, which are degenerative diseases of the brain that are thought to be caused by an infectious form of a protein called a prion. Prions, unlike viruses, bacteria and fungi, have no DNA and consist only of protein. Such diseases include Creutzfeldt Jakob Disease, new variant in humans, Bovine Spongiform Encephalopathy, referred to as BSE, in cows, and Scrapies disease in sheep. Axonyx has licensed these patent rights from New York University, or NYU. Axonyx also has co-ownership rights to patent applications regarding the therapeutic compound named Posiphen designed for the treatment of AD progression and Bisnorcymserine, or BNC, in development for the treatment of severe AD.

Axonyx's mission is to be a leading biopharmaceutical company that develops products and technologies to treat CNS diseases and disorders. Axonyx's initial business strategy has been focused primarily on three compounds in development for AD. These are:

Phenserine A symptomatic and disease progression treatment of mild to moderate AD

Posiphen A disease progression treatment for AD

Bisnorcymserine A symptomatic treatment of severe AD

Axonyx's current business strategy includes identifying and seeking to in-license potential compounds or partner with companies to expand its product development portfolio.

Phenserine is an inhibitor of acetylcholinesterase for the potential treatment of mild to moderate AD. Acetylcholinesterase is an enzyme active in the nerve synapse that degrades the neurotransmitter acetylcholine in the brain and other tissues of the body. Acetylcholinesterase inhibitors are drugs designed to selectively inhibit acetylcholinesterase. Acetylcholine is a chemical substance that sends signals between nerve cells, called neurotransmission, and is therefore called a neurotransmitter. Neurotransmitters are secreted by neurons, or nerve cells, into the space between neurons called the synapse. Acetylcholine is a primary neurotransmitter in the brain, and is associated with memory and cognition. Inhibition of its breakdown in AD patients has been shown to improve memory and cognition.

Posiphen is a compound that appears to decrease the formation of the beta amyloid precursor protein, referred to as beta-APP, and amyloid with potential applications in the treatment of AD progression. Posiphen is the positive isomer of Phenserine. As such, it appears to affect the messenger RNA of beta-APP as well as inhibit beta secretase whereby levels of neurotoxic beta amyloid, in preclinical animal models, are reduced.

BNC is a butyrylcholinesterase inhibitor. Butyrylcholinesterase is found in high concentration in the plaques taken from individuals who have died from AD. Butyrylcholinesterase is an enzyme that is normally found widely in the body and butyrylcholine appears to play a relatively increasingly important role in advancing AD. Inhibition of the enzyme may prove valuable in the treatment of severe AD.

The Phenserine Development Program

Axonyx's most advanced compound, Phenserine, selectively inhibits acetylcholinesterase, the enzyme primarily responsible for degrading acetylcholine at the synaptic gap between neurons, thus increasing the availability of this neurotransmitter. Phenserine has been shown to be a potent and selective inhibitor of this enzyme in the rat brain and increases memory and learning over a wide therapeutic dosage range in aged rats without causing toxic side effects. The compound readily enters the brain, has minimal activity in other organs outside the brain, and has a long duration of action. In preclinical studies, Phenserine was shown to have a brain to blood ratio of 10:1. Increasing the concentration of the active drug agent in the brain versus the rest of the body potentially maximizes the effects of the drug while potentially reducing peripherally mediated side effects.

Phenserine also has been shown to have the ability to inhibit the formation of beta-APP, a large protein that is the source of the neurotoxic peptide, beta amyloid. By inhibiting the formation of beta-APP, Phenserine can decrease the presence of the soluble beta amyloid protein that is potentially deposited in the brain as amyloid plaques, apparently causing eventual neuronal cell death. These studies were conducted at laboratories at the National Institute of Aging, or NIA in human neuroblastoma cell cultures and *in vivo* in rodents. Studies in human neuroblastoma cell lines showed that the compound reduces the formation of beta-amyloid peptide. Neuroblastoma cell cultures are a type of cell derived from the human brain that can be grown in containers in the lab (*in vitro*) where they are able to reproduce and carry out many activities as if they were residing in the brain, including the synthesis and secretion of proteins such as the beta-amyloid protein which, in the human brain, can form plaques. A neuroblastoma cell culture is used to study brain cell function in a simple *in vitro* system, which allows testing of the ability of drugs to prevent the formation of the beta-amyloid precursor protein and secretion of beta amyloid. Additional animal studies using the transgenic mouse have confirmed these findings. The transgenic mouse is a bio-engineered animal that mimics hallmark pathologic changes that occur in the human AD brain. These results suggest that Phenserine may have the ability to slow the progression of AD in addition to providing symptomatic relief for the cognitive changes.

In December 1999, Axonyx initiated Phase I human clinical trials for Phenserine utilizing healthy elderly patients at a U.S. research center. These Phase I safety and tolerance trials involving both single and multiple ascending doses were successfully completed in September 2000.

In October 2001, Axonyx completed a Phase II proof-of-concept double-blind placebo-controlled clinical trial with Phenserine in AD patients. This Phase II proof-of-concept trial was designed to determine the drug's safety and possibly a trend toward efficacy in patients exhibiting mild to moderate AD. The trial included 72 patients, with 48 patients receiving two daily doses of Phenserine 10mg and 24 patients received a placebo. The safety results from the trial substantiated Phase I results indicating that the drug is safe and well tolerated. Although the trial was not of the duration necessary and did not include the number of patients required to detect statistically significant clinical improvement in efficacy, nevertheless certain memory tests showed statistically significant results while other tests showed a trend towards statistical significance.

To date, Axonyx has conducted the following Phase III clinical trials with Phenserine: AX-CL-06/06e, AX-CL-09, AX-CL-010, as well as a Phase IIb trial, AX-CL-06a.

Protocol AX-CL-06 was a double-blind, placebo controlled trial initiated in June 2003 comparing the efficacy and tolerability of Phenserine 10mg or 15mg twice daily doses with twice daily placebo in patients who met the diagnostic criteria for probable mild to moderate AD. Two different regimens, 10mg twice daily and 15mg twice daily, were compared with placebo in this trial. The randomization was 1:2:2 for placebo: 10mg twice daily: 15mg twice daily, respectively. Patients randomized to active treatment were started on a 5mg twice daily regimen for the first month of treatment. This was increased to 10mg twice daily for the second month of treatment. The dose was then increased to 15mg

twice daily during the third through sixth months for those patients randomized to the highest dose regimen. Once a patient reached his or her target dose, it was maintained for a total treatment duration of 26 weeks. Patients who could not tolerate their target dose were discontinued. Discontinued patients were not replaced. A total of 384 patients were enrolled in the study. Of these, 377 received treatment. The remaining 7 never received drug treatment so they were excluded from the data analyses.

The primary efficacy variables were the Alzheimer's Disease Assessment Scale-cognitive subscale, or ADAS-cog, and Clinical Interview Based Impression of Change, or CIBIC+. The Phenserine groups showed consistently greater improvement in ADAS-Cog and CIBIC+ scores than the placebo group although the differences did not achieve statistical significance.

Protocol AX-CL-06a was a double-blind placebo controlled study of the effect of Phenserine 10mg or 15mg twice daily on cerebrospinal and plasma amyloid peptides from baseline and, at 26 weeks, initiated in June 2003. Both doses of Phenserine tended to lower the plasma levels of beta-amyloid peptides more than placebo, while beta- amyloid levels in the cerebrospinal fluid, or CSF, declined in those patients treated with placebo. This decline of amyloid levels in the CSF of untreated AD patients is consistent with historical and epidemiological data. None of the differences achieved statistical significance.

Protocol AX-CL-06e was an open-label extension to studies AX-CL-06 and AX-CL-06a that allowed all patients who had successfully completed either trial to continue on Phenserine 15mg twice daily dose for up to an additional six months. This extension was to gather additional safety data on Phenserine treatment.

Protocol AX-CL-09/010, initiated in the second half of 2004, was originally initiated as two identical 26-week placebo controlled trials of 450 AD patients each. During the implementation of the studies, results of Protocol AX-CL-06 became available. The results of this earlier study showed a numerical benefit of Phenserine treatment relative to placebo but failed to achieve statistical significance. Based on these results, enrollment in the two ongoing studies was halted at 255 patients in total, and the primary endpoint analysis was shortened to 12 weeks. Because the individual curtailed studies were underpowered, their data were combined and analyzed as a single trial. This was a randomized, multinational, multicenter placebo-controlled parallel-group study. Because the study was curtailed, many patients did not reach the originally scheduled 26-week end of treatment. However, all patients were allowed to complete at least 12 weeks of therapy. Patients were screened within 21 days of entry and randomly assigned to receive 10 or 15 mg of Phenserine twice daily or placebo. A titration schedule was used so that patients randomized to active treatment received 5mg twice daily for the first 4 weeks of the study followed by 10mg twice daily for 4 weeks. Patients randomized to 15mg twice daily received this dose starting in the ninth week. Treatment at the assigned doses was continued for up to 26 weeks. At the 12-week visit, patients randomized to 10mg twice daily had received this dose for approximately 8 weeks. Patients randomized to receive 15mg twice daily had received this dose for approximately 4 weeks.

Although the study did not achieve statistical significance in its primary endpoints, a subgroup of patients, who received Phenserine 15mg twice daily, demonstrated a statistically significant benefit over placebo as measured by the ADAS-cog when treated for more than 12 weeks. Additionally, this subgroup showed a positive trend towards improvement in the CIBIC+ test, which approached statistical significance. There were no unexpected safety or tolerability concerns associated with Phenserine treatment.

Axonyx has comprehensive data sets on Phenserine having completed extensive manufacturing scale-up, preclinical studies and taken the drug into three Phase III clinical trials for mild to moderate AD. Axonyx has determined that it will not commit further resources to these Phase III trials, and is

seeking to identify strategic partners that are able and willing to commit the necessary financial resources to Phenserine's further development and marketing approval.

On January 4, 2006 Axonyx announced that it has granted to Daewoong Pharmaceutical Company Ltd., or Daewoong, an exclusive license for the use of Phenserine in the South Korean market. Under the terms of the agreement Daewoong, at its own costs, undertakes to pursue the product development and regulatory work necessary for a NDA (or its equivalent) in South Korea with respect to Phenserine for the treatment of AD. The financial terms of the deal include royalty payments to Axonyx based on sales of Phenserine by Daewoong in the South Korean market.

On January 31, 2006 Axonyx announced that three presentations of data on its drug development candidate, Phenserine, and one presentation of data on its drug development candidate, Posiphen , would be made at the 9th International Geneva/Springfield Symposium on Advances in Alzheimer Therapy in Geneva, Switzerland, being held April 19-22, 2006. Phenserine has been in development by Axonyx for the treatment of mild to moderate AD and Posiphen is currently in clinical development for the treatment of AD progression.

On February 14, 2006, Axonyx reported a statistically significant reduction compared to baseline in the plasma levels of beta-amyloid 1-42, or Aß-42, in healthy human subjects treated with Phenserine for 35 days in a previously conducted Phase I study.

On April 19, 2006 Axonyx reported an analysis of results suggesting stabilization of total brain volume and brain parenchymal fraction of mild-to-moderate AD patients treated with Phenserine 10mg or 15mg twice daily for 26-weeks. The data was presented in its entirety as a poster in Geneva on Thursday, April 20, 2006 at the 9th International Geneva/Springfield Symposium on Advances in Alzheimer Therapy for 26-weeks.

On April 20, 2006 Axonyx reported on data showing an increase in brain glucose metabolism and reduction of brain amyloid levels in the memory and cognition areas in brains of mild-to-moderate AD patients treated with Phenserine 15mg twice daily for 13-weeks. The data was included in an oral presentation by Prof. Dr. Agneta Nordberg, M.D., Ph.D. of the Karolinska Institute, Stockholm, Sweden, on Friday, April 21st, 2006 at the 9th International Geneva/Springfield Symposium on Advances in Alzheimer Therapy.

The Posiphen Development Program

Posiphen is the positive isomer of Phenserine. It appears to decrease the formation of beta-amyloid with potential application in the treatment of AD progression. The build-up of beta-amyloid is generally believed to be causative of the dementia of AD and its progression. Posiphen's mechanism of action is potentially through RNA translational inhibition and possibly beta secretase inhibition. Posiphen has been shown to lower beta-APP and beta-amyloid levels in preclinical studies. The primary mechanism of action results in a dose dependent reduction of beta-amyloid, which may result in slowing AD progression. The initial preclinical side effect rates potentially allow for higher clinical doses. On August 1, 2005 Axonyx announced that the FDA approved its IND allowing Phase I clinical testing of Posiphen . The first Phase I single ascending dose clinical study commenced in August 2005 and evaluated the safety of Posiphen in healthy volunteers.

In January 2006, Axonyx completed a single ascending dose Phase I trial with Posiphen . This double-blind, placebo controlled study of Posiphen in healthy men and women sought to establish well tolerated doses. Posiphen appears to be well tolerated at single doses up to and including 80mg. Blood levels of Posiphen associated with this study were higher than those associated with beneficial effects on beta-amyloid metabolism in animal models. The build-up of beta-amyloid, or Aß, is generally believed to be causative of the dementia of AD. No serious adverse events were reported at any dose level. We initiated a Phase I multiple ascending dose study in the first quarter of 2006.

On April 24, 2006, Axonyx announced the results of an independent research study showing that Posiphen increased the ability of transplanted human neuronal stem cells, or HNSC, to differentiate into neurons in amyloid precurser protein transgenic mice, a model of AD in humans.

On May 15, 2006 Axonyx announced the completion of a multiple dose Phase I study with Posiphen in clinical development for the treatment of AD progression. This double-blind, placebo-controlled multiple ascending dose safety and pharmacokinetic study of Posiphen in healthy volunteers sought to establish well tolerated doses. The initial review of the clinical adverse event data appears to be generally consistent with the results of the earlier single ascending dose Phase I study that suggested that the mean Posiphen blood levels associated with well tolerated doses in humans are higher than those associated with potentially beneficial effects on beta-amyloid metabolism in animal models. No serious adverse events were reported at any dose level in this second Phase I study.

This multiple ascending-dose study examined the effects of 20, 40 and 60 mg doses of Posiphen given four times daily, for a period of 7, 7 and 10 days, respectively. On the first and last day of each dosing period one single dose of Posiphen was given. Each dose period was completed and evaluated for safety and tolerance before the next higher dose level was initiated. Each cohort was composed of a different set of 16 subjects, comprised of 12 who received Posiphen and 4 who received placebo, with equal numbers of males and females in each. The detailed safety, pharmacokinetic and pharmacodynamic analyses are ongoing.

The Bisnorcymserine Development Program

Axonyx's butyrylcholinesterase inhibitor compounds are designed to selectively inhibit butyrylcholinesterase, an enzyme similar to acetylcholinesterase. Normally these two enzymes coexist throughout the body, with acetylcholinesterase predominating in degrading acetylcholine. In the brain of AD patients, as acetylcholinesterase levels gradually fall, there appears to be a concomitant increase in butyrylcholinesterase levels in specific nerve pathways within the cortex and the hippocampus, areas associated with AD. Like acetycholinesterase, butyrylcholinesterase degrades acetylcholine at the synaptic gap between neurons, decreasing the availability of this key neurotransmitter. This enzyme was identified as a target for inhibition in AD as it also terminates the action of the neurotransmitter acetylcholine in specific nerve pathways in regions of the brain associated with AD and is found in high concentration in amyloid plaques in the brains of AD patients. Axonyx's butyrylcholinesterase inhibitor compounds act to counter butyrylcholinesterase, thus enhancing the availability of acetylcholine, potentially improving memory and cognition. Inhibition of butyrylcholinesterase may also reduce any increased toxicity of beta-amyloid caused by the presence of butyrylcholinesterase in amyloid plaques.

Several butyrylcholinesterase inhibitor product candidates, including BNC, have been studied extensively in preclinical studies and have been found to have many of the characteristics desirable for use in AD. Like Phenserine, these compounds have a dual mechanism of action in that, in addition to inhibiting the butyrylcholinesterase enzyme, they also inhibit the formation of beta-APP in cell culture, and in rats. These preclinical findings indicate that these butyrylcholinesterase inhibitor compounds may have an important role in preventing the formation of amyloid plaques in AD, in addition to its inhibition of butyrylcholinesterase. The compounds readily enter the brain, they have a long duration of action and are highly active in improving memory and learning in the aged rat. Currently it appears that BNC has several advantages over the other compounds in preclinical results. BNC appears to be the most potent butyrylcholinesterase inhibitor in Axonyx's patent portfolio. It has a 100-fold selectivity over acetylcholinesterase. Behavioral work shows it to improve memory in rodent models, and it reduces beta-APP in tissue cultures. BNC has three potential uses: (1) as an inhibitor of butyrylcholinesterase, (2) as an inhibitor of the production of beta-APP, thus inhibiting the formation of amyloid plaques, and (3) as an early diagnostic marker.

BNC is a highly selective butyrylcholinesterase inhibitor. Butyrylcholinesterase is found in high concentration in the plaques taken from individuals who have died from AD. Butyrylcholinesterase appears to have an increasing role with advancing AD and its primary mechanism of action results in a dose dependent reduction of acetylcholine. The initial preclinical side effect rate potentially allows higher clinical doses. A secondary mechanism of action is associated with dose dependent reductions of beta APP and amyloid beta. BNC, the lead compound from Axonyx's butyrylcholinesterase family, is currently in full pre-IND development. A recently published article in the Proceedings of the National Academy of Science describes the underlying mechanism, *in vitro* and cognition results in animal models.

Other Acetylcholinesterase Inhibitors

Axonyx has assessed certain properties of its other inhibitors of acetylcholinesterase such as Tolserine, which may ultimately prove to have certain additional advantages for use in AD, and Thiatolserine, a compound that has characteristics that may be suitable for development as a transdermal agent, one that is absorbed through a patch placed on the skin.

Other Compounds in the Axonyx Drug Portfolio

There are other potential pharmaceutical compounds that Axonyx has patents rights to that may be further developed in the future, given sufficient financial resources.

Other Pertinent Information

In December 2000, Axonyx incorporated Axonyx Europe BV, a wholly owned subsidiary, in The Netherlands. Gosse B. Bruinsma, M.D., currently the President and Chief Executive Officer of Axonyx, is also the President of Axonyx Europe BV. To date the majority of Axonyx's clinical development activities and a significant amount of its preclinical development activities have been carried out in Europe. The Axonyx Europe BV office manages, directs, and controls these activities. Axonyx Europe BV explores and pursues in-licensing and out-licensing opportunities for its licensed technologies and facilitates communication with its European stockholders.

Axonyx has incurred negative cash flows from operations since its inception in 1997. Its net losses for the three fiscal years ended 2003, 2004 and 2005 were $8,106,000, $28,780,000 and $28,614,000, respectively.

Axonyx Inc. was incorporated in Nevada on July 29, 1997. Axonyx's principal executive offices are located at 500 Seventh Avenue, 10th Floor, New York, New York 10018, and its telephone number is (212) 645-7704.

Alzheimer's Disease Overview

General

AD is a degenerative brain disease that, with individual variations, advances from memory lapses to confusion, personality and behavior changes, communication problems and impaired judgment. Over time, AD patients become increasingly unable to care for themselves, and the disease eventually leads to death. It is estimated that more than 4 million Americans and 12 million people worldwide suffer from AD. Risk factors for the disease include age and family history. According to the Alzheimer's Association, the disease affects one in 10 persons over 65 and half of those over 85 years old are affected by the disease.

While scientists are not completely certain of the specific causes of AD, scientific discoveries have identified important hallmarks of the disease. Two schools of thought in the scientific community have been historically divided between those that believe that the neurofibrillary tangles composed of tau

protein within the nerve cells are responsible for the disease and those that believe that neurotoxic beta amyloid and the senile plaques composed of beta-amyloid protein are the cause. Both neurofibrillary tangles within brain nerve cells and extracellular senile amyloid plaques in the cholinergic nerve pathways of the brain have been linked to the death of nerve cells in AD patients. Recent research indicates that a disruption or an abnormality in beta-amyloid metabolism and the formation of amyloid plaques are most likely to be the primary causes of AD.

According to the most widely accepted theory concerning the cause of AD, there are two important events leading to the formation of beta-amyloid plaques. The first event involves the abnormal processing of the beta-APP. In AD, beta-APP is sequentially cleaved into pieces by two enzymes, creating protein fragments, one of which is the beta-amyloid peptide. The second key event is the conversion of beta-amyloid into insoluble beta-sheets that aggregate to form insoluble fibrous masses, or fibrils. These fibrils are deposited as part of the neurotoxic amyloid plaques that appear to cause the death of neurons in the brain. The beta-amyloid protein is a protein normally found in the brain and appears to be over-produced in AD and is considered the toxic agent responsible for neuronal cell death. There are a number of strategies for preventing the formation of these amyloid plaques: (1) preventing the formation of beta-amyloid through the inhibition of the processing of its parent molecule, beta-APP, (2) inhibiting the enzymes that cleave the beta-APP, (3) removing beta-amyloid from the brain or preventing its aggregation into plaques, and (4) the disassembly of the existing amyloid plaques.

AD is characterized by increasing cognitive impairment and progressive loss of memory. These impairments are caused, over time, by a loss of neurons of the cholinergic system of the brain and a loss of cortically-projecting neurons that connect the mid-brain with the cortical areas in the forebrain, particularly affecting brain areas associated with memory and learning. The cholinergic system is also called the parasympathetic nervous system; it is involved in nerve transmission related to memory and cognition, as well as the involuntary functioning of major organs such as the heart, lungs and gastrointestinal system. Cortically-projecting neurons are the nerve cells that connect the mid-brain to the cortical areas in the front part of the brain where nerve cells involved in memory and cognition are concentrated. In AD, the loss of these connecting nerve cells results in a reduction in the amount of the neurotransmitter acetylcholine, and the loss of mental capacity or cognition. Under normal healthy conditions, the neurotransmitter acetylcholine is produced by cholinergic neurons and released to carry messages to other cells, then broken down for reuse. The production and transmission of signals across neurons by acetylcholine is responsible, at least in part, for our memory, learning and cognitive functions. Having caused a signal to be passed from one neuron to the next, acetylcholine is subsequently broken down by an enzyme called acetylcholinesterase. In AD, the loss of these cholinergic neurons results in the decreased synthesis and availability of acetylcholine. By inhibiting acetylcholinesterase, the amount of available acetylcholine to carry messages between surviving neurons is increased, leading to improvements in memory and cognition.

Recent research suggests that for specific nerve pathways within the brain of AD patients the presence of the enzyme butyrylcholinesterase increases relative to acetylcholinesterase. Normally these two enzymes coexist throughout the body, with acetylcholinesterase predominating in degrading acetylcholine. Butyrylcholinesterase is additionally found in many other body tissues and functions to degrade a number of drugs such as codeine. In the brain of AD patients, as acetylcholinesterase levels gradually fall there is a parallel increase in butyrylcholinesterase levels in specific nerve pathways within the cortex and the hippocampus, areas associated with AD. Like acetylcholinesterase, butyrylcholinesterase degrades acetylcholine at the synaptic gap between neurons, decreasing the availability of this key neurotransmitter. Research in cell culture studies indicates that the increase in butyrylcholinesterase activity amplifies the toxicity of beta amyloid. This enzyme was identified as a target for inhibition in AD as it also terminates the action of the neurotransmitter acetylcholine in

specific nerve pathways in regions of the brain associated with AD and is found in high concentration in amyloid plaques in the brains of AD patients.

In addition to inhibiting key enzymes associated with the neural transmission of acetylcholine in preclinical studies conducted by the National Institutes of Aging, or NIA, and other independent laboratories, the acetylcholinesterase inhibitor Phenserine, Posiphen and Axonyx's butyrylcholinesterase inhibitors appear to have the ability to inhibit the formation of beta-APP and to reduce levels of the beta-amyloid peptide, the primary component of amyloid plaques.

The treatment of people with AD is a multi billion-dollar industry in the United States alone and constitutes an extremely large and continually expanding potential market with an unmet therapeutic need. Currently there are four drugs that have been approved in the United States that provide symptomatic relief for one aspect of AD, inhibition of acetylcholinesterase: Cognex (developed by Warner Lambert), Aricept (Pfizer), Exelon (Novartis) and Razadyne, formerly Reminyl (Johnson & Johnson). One of Axonyx's compounds, Phenserine, is also an acetylcholinesterase inhibitor. Unlike the other marketed compounds Phenserine has demonstrated, in preclinical testing utilizing transgenic mice, the ability to inhibit the formation of beta-APP and to reduce levels of the beta-amyloid peptide, the primary component of amyloid plaques. Axonyx's butyrylcholinesterase inhibitor product candidates attack the disease in other potentially effective ways, representing a potentially new platform technology for the treatment of AD.

Given the complexity of the disease, and uncertainty concerning the specific mechanisms causing AD, it appears likely that a multi-drug approach to treating the disease will be utilized in the future. Axonyx believes that safe and effective drugs could potentially be prescribed in order to attack the disease through a number of different mechanisms of action.

Out-Licensed Technology

Under a license agreement with Applied Research Systems ARS Holding N.V., or ARS, a wholly owned subsidiary of Serono International, S.A., or Serono, effective September 15, 2000, Axonyx granted to ARS a sublicense of its patent rights and know-how regarding the development and marketing of the Amyloid Inhibitory Peptide, or AIPs, and the Prion Inhibitory Peptide, or PIPs, technology which had been licensed to Axonyx under a research and license agreement with New York University, or NYU. See "Axonyx's Business Strategic Alliances". Axonyx is negotiating a re-acquisition of those rights from ARS and an option to license, on a non-exclusive basis, certain Serono patents, technology and know-how related to AIPs and PIPs. If Axonyx exercises this option and acquires the license, it would be obligated to pay to Serono an upfront payment and under certain circumstances additional milestone payments and royalties would be due.

In January 2006, Axonyx announced that it had granted to Daewoong an exclusive license for the use of Phenserine in the South Korean market. Under the terms of the agreement Daewoong, at its own cost, undertakes to pursue the product development and regulatory work necessary for an NDA (or its equivalent) in South Korea with respect to Phenserine for the treatment of AD. The financial terms of the deal include royalty payments to Axonyx based on sales of Phenserine by Daewoong in the South Korean market.

Competition

Axonyx competes with many large and small pharmaceutical companies that are developing and/or marketing drug compounds similar to those being developed by Axonyx, especially in the area of acetylcholinesterase inhibitors and the amyloid cascade. Many large pharmaceutical companies and smaller biotechnology companies have well funded research departments concentrating on therapeutic approaches to AD. Axonyx expects substantial competition from these companies as they develop

different and/or novel approaches to the treatment of AD. Some of these approaches may directly compete with the compounds that Axonyx is currently or is considering developing.

In the intense competitive environment that is the pharmaceutical industry, those companies that complete clinical trials, obtain regulatory approval and commercialize their drug products first will enjoy competitive advantages. Axonyx believes that the compounds covered by its patent rights have characteristics that may enable them, if fully developed, to have a market impact.

A number of major pharmaceutical companies have programs to develop drugs for the treatment of AD. Like Phenserine, many of these drugs are acetylcholinesterase inhibitors. Warner-Lambert (Cognex), Pfizer (Aricept), Novartis (Exelon) and, most recently, Johnson & Johnson (Razadyne®, formerly Reminyl), have marketed compounds of this type in the United States. Cognex was effectively removed from the market in 1998 due to severe side effects and Aricept (donepezil) currently dominates the market with approximately $1 billion in U.S. sales in 2003. Several other pharmaceutical companies have acetylcholinesterase inhibitors in human clinical trials. In addition, Forest Laboratories' Namenda (memantine HCl) was recently approved in the U.S. for the treatment of moderate to severe AD as monotherapy or in combination with donepezil, a commonly prescribed acetylcholinesterase inhibitor. Memantine has a different mechanism of action that is focused on the glutamate pathway and can potentially also be prescribed together with Phenserine and Axonyx's other product candidates in development.

Several biotechnology companies have drugs in clinical trials that are based on a beta-amyloid approach to the treatment of AD. In addition, other small biotechnology companies appear to be pursuing studies on the amyloid inhibitory peptide approach similar in scope and direction as that which Axonyx has sub-licensed to Serono. Another company is developing ways to inhibit plaque deposition by interfering with the transporter molecules that carry beta-amyloid from the cell membrane, where it is produced from APP, to the cell exterior where the amyloid plaques are formed. Several pharmaceutical companies are working on compounds designed to block the secretase enzymes involved in beta-APP processing. Elan Pharmaceuticals, the California based subsidiary of the Elan Corporation of Dublin, Ireland, continues research and development work on a vaccine designed to cause the immune system to mount antibodies against the amyloid proteins that make up amyloid plaques. This work is in conjunction with Wyeth. This vaccine showed efficacy in genetically altered mice but Phase II human clinical trials were suspended by Elan due to the incidence of side effects in some patients.

In the area of butyrylcholinesterase inhibition, Novartis' drug Exelon® is a dual inhibitor of both acetylcholinesterase and butyrylcholinesterase.

Many other pharmaceutical companies are developing pharmaceutical compounds for the treatment of AD or other memory or cognition impairments based on other therapeutic approaches to the disease. These products could become competitors for, or have additive, synergistic clinical effects with one or more of Axonyx's AD targeted product candidates. Examples of those competitive approaches include pharmaceutical compounds designed to stimulate glutamate receptors involved in memory and learning, target nicotinic and muscarinic receptors to increase the release of certain neurotransmitters, activate nerve regeneration, magnify the signals reaching aging neurons from other brain cells, and to modulate GABA (a neurotransmitter) receptors.

In the field of prions, and prion-related diseases, one company, Prionics, A.G., of Zurich, Switzerland, has a diagnostic test for animal use that is approved in Europe. Prionics is also researching the treatment of Creutzfeldt-Jakob disease, new variant, or nvCJD, in humans. Two other companies have veterinary diagnostic tests for BSE approved in the European Union and two additional companies are developing such diagnostic tests.

Government Regulation

Regulation by governmental authorities in the United States and foreign countries is an important factor in the development, manufacture and marketing of Axonyx's proposed products. It is expected that all of Axonyx's products will require regulatory approval by governmental agencies prior to their commercialization. Human therapeutic products are subject to rigorous preclinical and clinical testing and other approval procedures by the FDA and similar regulatory agencies in foreign countries.

Preclinical testing is conducted on animals in the laboratory to evaluate the potential efficacy and the safety of a potential pharmaceutical product. The results of these studies are submitted to the FDA as a part of an IND, which must be approved before clinical testing in humans can begin in the U.S. Typically, the clinical evaluation process involves three phases. In Phase I, clinical trials are conducted with a small number of healthy human subjects to determine the early safety profile, the pattern of drug distribution and metabolism. In Phase II, clinical trials are conducted with groups of patients afflicted with a specific disease to determine preliminary evidence of efficacy, the optimal dosages, and more extensive evidence of safety. In Phase III, large scale, statistically-driven multi-center, comparative clinical trials are conducted with patients afflicted with a target disease in order to provide enough data to demonstrate the efficacy and safety required by the FDA.

The FDA requires that all preclinical and clinical testing, as well as manufacturing of drug product, meet certain Good Practices guidelines, including Good Manufacturing Processes, Good Laboratory Practices and Good Clinical Practices. These guidelines are designed to ensure formal training, standard operating procedures, independent performance checks and measures, the accuracy, consistency, validity and completeness of the particular activity. In Axonyx's case, contract research organizations, or CROs, and academic or other sponsored research laboratories that it utilizes for its preclinical and clinical research, as well as active pharmaceutical ingredient, or API, manufacturing of pure drug product, must comply with these guidelines. Axonyx's contracted manufacturers, sponsored research labs and CROs undertake to adhere to Good Manufacturing Processes, Good Laboratory Practices and Good Clinical Practices. Axonyx selects only CROs that have a record of adherence to those standards and have internal quality assurance and control functions in place to ensure such adherence. However, no assurance can be given that these CROs will in fact completely adhere to the relevant standards in their work for Axonyx.

The results of all of the preclinical and clinical testing are submitted to the FDA in the form of a NDA for approval to commence commercial sales. In responding to an NDA, the FDA may grant marketing approval, request additional information, or deny the application if the FDA determines that the application does not satisfy its regulatory approval criteria. Axonyx cannot assure you that approvals will be granted on a timely basis, if at all. Similar regulatory procedures are in place in most developed countries outside the United States.

Strategic Alliances

Background: Amyloid Inhibitory Peptides, or AIPs, and Prion Inhibitory Peptides, or PIPs

In AD the conversion of beta-amyloid protein into insoluble beta-sheets that aggregate to form fibrils is a key event that leads eventually to neuronal cell death in the brains of AD patients. These fibrils are deposited as part of the neurotoxic amyloid plaques that appear to cause the death of neurons in the brain. The beta-amyloid protein is a protein normally found in the brain that is over-produced in AD.

The AIPs, also referred to as beta-sheet breaker peptides, have been designed to block the aggregation of beta-amyloid in a competitive manner by binding to the beta-sheet form of the amyloid protein, thus preventing the formation of amyloid plaques in the brain. The beta-sheet breaker peptide is a molecule composed of naturally occurring amino acids, the building blocks of proteins, which is

designed to bind to and prevent the conversion of the normal form of protein to the misshapen form that forms plaques.

In experiments *in vitro* and *in vivo* at labs at NYU with one of the AIPs, the compound inhibited the formation of amyloid fibrils, caused disassembly of preformed fibrils and prevented neuronal cell death in cell culture. In a rat model of amyloidosis, an AIP reduced beta-amyloid protein deposition and significantly blocked the formation of amyloid fibrils. In addition, one of the AIPs has been shown to cause a significant reduction of established amyloid deposits in the brains of rats. These results indicate the potential for a drug based on the AIP technology to prevent the formation of the amyloid plaques, and to treat AD patients who already have amyloid plaques. Thus, the AIPs may not only prevent the formation of amyloid plaques in but also disassemble existing amyloid plaques.

There is increasing evidence that prions are the infectious agents that cause BSE, nvCJD and possibly other prion-related diseases. These diseases have caused grave concern in Europe and the U.S. because of the potential for their transmission to humans through the meat supply. These fatal neurodegenerative disorders are characterized by spongiform degeneration of the brain and, in many cases, by deposits of prions into plaques. The infectivity of prions is believed to be associated with an abnormal folding of the prion protein. This folding involves a conversion of the alpha-helical form to the beta-sheet form that can be deposited in plaques in the brain.

New York University License

On April 1, 1997 Axonyx entered into a research and license agreement with NYU pursuant to which NYU granted Axonyx an exclusive worldwide license to certain patent applications covering AIPs, PIPs and related technology, and any inventions that arose out of the research project funded by Axonyx. Aggregate milestone payments under the agreement total $525,000, with $175,000 payable once for each of one AD treatment product, one prion treatment product and one neuro-imaging product. Axonyx must pay minimum annual royalty payments to NYU in the amount of $150,000 per year beginning in 2004, through the expiration or termination of the agreement. Axonyx also undertook to comply with a development plan annexed to the agreement, that contains deadlines by which Axonyx or its sublicensee is to achieve certain development milestones, including commencing clinical trials, for an AIP and PIP compound.

Under the research and license agreement, Axonyx is obligated to pay all patent filing, prosecution and maintenance costs. In addition, Axonyx paid NYU $25,000 upon signing the agreement in connection with patent expenses incurred prior to the signing of the agreement. Axonyx has the right to bring suit against any third party infringers and are responsible for all of its costs and expenses or those of NYU incurred in conjunction with such suit. If Axonyx is rewarded a recovery in its suit against a third party infringer, it may utilize such recovery to pay for its costs and expenses in bringing such action, and it must pay NYU a portion of any excess recovery over such costs and expenses. If Axonyx chooses not to bring such a suit, and NYU exercises its right to do so, NYU will pay the costs and expenses of such a suit against a third party infringer. NYU has the right to reimburse itself for costs and expenses incurred in such a suit out of any sums recovered, and will pay Axonyx fifty percent of the amount of such recovery in excess of NYU's costs and expenses.

Axonyx issued an aggregate of 600,000 shares of common stock to NYU and two scientists involved in the research upon signing of the agreement. These 600,000 shares of common stock had a fair market value of $240,000 when they were issued. In addition, Axonyx granted additional shares of common stock to NYU and the two scientists pursuant to certain anti-dilution provisions relative to the shares issuance at a price of $0.001 per share. Axonyx issued an aggregate of 317,369 shares of common stock to NYU and the two scientists in 2000. Axonyx recorded accounting charges of $1,965,000 for the fair market value of 305,074 of the 317,369 shares deemed issued in 1999 and

recorded accounting charges of $138,000 for the fair market value of final tranche of 12,295 shares issued in 2000 to complete the shares issuances to NYU and the two scientists.

In addition to royalties on future sales of products developed from the patented technologies, milestone payments and patent filing and prosecution costs, Axonyx undertook to fund four years of research at the NYU School of Medicine at Dr. Blas Frangione's laboratory at a cost of $300,000 per year. That obligation ceased in the Fall of 2001, after Axonyx had paid an aggregate of $1,200,000. Under the agreement with NYU, Axonyx received an exclusive license to all inventions in the field arising from this research on the AIPs and PIPs. Axonyx did not receive notice from NYU that any inventions in the field arose out of the research project on the AIPs and PIPs.

The patent license terminates, on a country-by-country basis, upon expiration of the last to expire of the licensed patents (June 2015 for the U.S.) or eight years from the date of first commercial sale of a licensed product in such country, whichever is later. Either party can terminate the Research and License Agreement if the other party materially breaches or defaults in the performance or observance of any of the provisions of the agreement and such breach or default is not cured within 60 days or, in the case of failure to pay any amounts due under the agreement, within 30 days after giving notice by the other party specifying such breach or default, or automatically and without further action if either NYU or Axonyx discontinues its business or becomes insolvent or bankrupt. Upon termination of the agreement all rights in and to the covered patent rights shall revert to NYU and Axonyx will not be entitled to impinge on such patent rights. Termination of the agreement would not relieve either party of any obligation to the other party incurred prior to such termination. Certain provisions of the research and license agreement will survive and remain in full force and effect after any termination, including provisions relating to confidentiality, liability and indemnification, security for indemnification, and use of the name of the other party without prior written consent except under certain circumstances.

On October 11, 2002, Axonyx signed a fourth amendment with NYU to the research and license agreement between NYU and Axonyx dated April 1, 1997. The amendment modifies the development plan annexed to the research and license agreement regarding deadlines by which Axonyx or its sublicensee is to achieve certain development milestones, including commencing clinical trials, for an AIP compound. The amendment extends the dates by which Axonyx or its sublicensee undertakes to meet certain development and commercialization benchmarks, including the commencement of Phase I clinical trials for an AIP compound. The amendment also modifies the terms of the milestone payment provisions of the research and license agreement, delays the due date for the next development plan report and contains releases and waivers of default by NYU and Axonyx. NYU waived any past failures on Axonyx's part to develop licensed products in accordance with the schedule provided in the development plan under the research and license agreement. Axonyx had sublicensed the technology covered by the research and license agreement to ARS, a wholly owned subsidiary of Serono International, S.A.. Axonyx is negotiating a reacquisition of those rights from ARS.

CURE, LLC, Public Health Service/National Institutes of Health

On February 27, 1997, Axonyx acquired the worldwide exclusive patent rights to Phenserine, Cymserine (a butyrylcholinesterase inhibitor), their analogs (one of a series of chemical substances of similar chemical structure) and related acetylcholinesterase and butyrylcholineserase inhibitory compounds (not including PENC or BNC) via a sublicense with CURE, LLC, referred to as CURE, from the Public Health Service, referred to as PHS, parent agency of the National Institutes of Health/National Institute on Aging, or NIH/NIA. Axonyx has periodically sponsored some of the researchers at the NIH/NIA facilities involved in fields of research related to the licensed patent rights.

Under the license agreement, Axonyx agreed to pay royalties to CURE of up to 3% of the first $100 million and 1% thereafter, of net product sales of, and sub-licensed royalties on, products

developed from the patented technologies. Axonyx also agreed to pay an upfront fee in the amount of $25,000, milestone payments aggregating $600,000 when certain clinical and regulatory milestones are reached, and patent filing and prosecution costs. Axonyx has been paying minimum annual royalty payments of $10,000 since January 31, 2000, which will increase to $25,000 per year on commencement of sales of the product until the expiration or termination of the agreement. Any royalty payments made to CURE shall be credited against the minimum payments. Four patents have been issued in the United States.

Certain pass through provisions from the license agreement between CURE and the PHS are contained in Axonyx's license agreement with CURE and are binding on Axonyx as if it was a party to the license agreement with PHS. Those provisions cover certain reserved government rights to the licensed patents, preparation, filing, maintenance and prosecution of the licensed patents, obligations to meet certain benchmarks and perform a commercial development plan, manufacturing restrictions, as well as indemnification, termination and modification of rights. PHS reserves on behalf of the U.S. government or any foreign government or international organization pursuant to any existing or future treaty or agreement with the U.S. government an irrevocable, nonexclusive, nontransferable, royalty free license for the practice of all inventions licensed pursuant to the license agreement between CURE and PHS for research or other purposes. Prior to the first commercial sale Axonyx must provide PHS with licensed products or material for PHS's use. After making the first commercial sale of licensed products until expiration of the agreement, Axonyx must use its reasonable best efforts to make the licensed products and processes reasonably accessible to the U.S. public. PHS reserves the right to terminate or modify the license agreement if it is determined that such action is necessary to meet requirements for public use specified by federal regulations. Axonyx is also obligated, under these pass through provisions, to manufacture licensed products substantially in the U.S., unless a written waiver is obtained in advance from PHS. Axonyx undertook to develop and commercialize any licensed products covered by the patents pursuant to a commercial development plan contained in a pass through provision from the CURE-PHS license agreement. If Axonyx fails to cure non-compliance with the commercial development plan after notice from CURE within a reasonable period of time, it could be in material breach of the agreement.

Under the pass through provisions from the license agreement between CURE and PHS, PHS is primarily responsible for the preparation, filing, prosecution and maintenance of the patents covered by the license agreement. Pursuant to its agreement with CURE, Axonyx has assumed full responsibility for the preparation, filing, prosecution and maintenance of the covered patents, and has reimbursed CURE for its patent expenses as part of the $25,000 up front fee. Axonyx has the right to pursue any actions against third parties for infringement of the patents covered by its license agreement with CURE. Upon the conclusion of any such infringement action Axonyx may bring, it is entitled to offset unrecovered litigation expenses incurred in connection with the infringement action against a percentage of the aggregate milestone payments and royalties owed to CURE. In the event that fifty percent of such litigation expenses exceed the amount of royalties is payable by Axonyx, the expenses in excess may be carried over as a credit on the same basis into succeeding years. A credit against litigation expenses will not reduce the royalties due in any calendar year to less than the minimum annual royalty. Any recovery Axonyx makes in such an infringement action shall be first applied to reimburse CURE for royalties withheld as a credit against litigation expenses and Axonyx may utilize the remainder to pay for its litigation expense. Any remaining recoveries will be shared equally by Axonyx and CURE.

The reversionary rights provision of the license agreement sets certain deadlines by which Axonyx is to achieve certain development milestones, including commencing clinical trials, for Phenserine. If Axonyx fails to comply with the development benchmarks set forth in the reversionary rights provision, or the commercial development plan, or pay the required penalty fees, then all rights to the patents may, at CURE's election, revert to CURE, and the agreement will terminate. In addition, Axonyx has

the right to terminate the agreement with 60 days notice without cause. Either party may terminate the agreement upon cause, if the other party materially breaches or defaults in the performance of any provision of the agreement and has not cured such breach or default within 90 days after notice of such breach or default, or if either party discontinues its business or becomes insolvent or bankrupt. Unless terminated first, the license terminates upon the last to expire of the licensed patents (November 2013 in Europe, extendable to November 2018 under EU Regulation (EEC) 1768/92).

On May 27, 2002, Axonyx signed an amendment letter with CURE that amends the license agreement between Axonyx and CURE dated February 27, 1997. The amendment modifies the reversionary rights provision of the license agreement regarding deadlines by which Axonyx is to achieve certain development milestones, including commencing clinical trials, for Phenserine. The amendment extends the dates by which reversionary rights arise if Axonyx fails to meet certain development benchmarks, including the commencement of Phase III clinical trials for Phenserine. On July 11, 2002, PHS signed an amendment to the patent license agreement between PHS and CURE dated January 31, 1997, which, among other things, amends the commercial development plan and benchmark provisions of the original agreement and extends the dates by which CURE or its sublicensee Axonyx is required to commence clinical trials for Phenserine and file an NDA for Phenserine. Axonyx is negotiating a further amendment of those provisions and dates.

Marketing and Sales

Axonyx does not intend to directly manufacture or market any products it may develop. Axonyx intends to license to, or enter into strategic alliances with, larger pharmaceutical and veterinary companies that are equipped to manufacture and/or market its products, if any, through their well developed distribution networks. Axonyx may license some or all of its worldwide patent rights to more than one company to achieve the fullest development, marketing and distribution of its products, if any.

Patents, Trademarks, and Copyrights

Axonyx is substantially dependent on its ability to obtain patents, proprietary rights, and operate without infringing on the proprietary rights of third parties. Axonyx's policy is to file and/or prosecute patent applications to protect technology, inventions, and improvements that it considers important to its business and operations. Axonyx or its licensors or collaborators have filed patent applications on products and processes relating to its lead compounds, Phenserine, Posiphen , and BNC, as well as other technologies and inventions in the United States and in certain foreign countries. Axonyx intends to file additional patent applications, when appropriate, relating to improvements in these technologies and other specific products and processes. Axonyx plans to vigorously prosecute, enforce, and defend its patents and other proprietary technology, although it recognizes that the scope and validity of patents is never certain. Obtaining and maintaining its patent position is costly. Axonyx pays for the filing, prosecution and maintenance of over 150 patents and patent applications in countries around the world, including the U.S., Europe, Japan, Canada, Australia, New Zealand and South Korea. In the U.S. alone, Axonyx has rights in 10 issued patents.

In February of 1997, CURE granted Axonyx an exclusive license to certain patents and patent applications relating to the development and commercialization of Phenserine. Under this license agreement Axonyx has to achieve specified benchmarks and upon receipt of marketing approval for Phenserine, to pay royalties based on the net sales. This license terminates upon expiration of the last to expire of the licensed patents (September 2011 in the U.S., extendable through 2016 under the Patent Term Restoration Act of 1984).

Axonyx and the NIH jointly own rights in patent applications directed to the use of Posiphen to reduce ß-amyloid protein levels and treat the underlying pathology of AD. These patents expire in March of 2022.

Axonyx and the NIH jointly own rights in issued patents and patent applications directed to butyrylcholinesterase inhibitors, including BNC, and methods of treating cognitive disorders. These patents expire in July of 2018.

Co-ownership of a patent based on co-inventorship in the United States means that each co-inventor presumptively owns a pro-rata undivided interest in the whole patent, and has the unilateral right to exploit the patent without the consent of and without accounting to the other owners. None of the co-inventors can unilaterally grant exclusive rights to the patent to another party, nor can any co-inventor prosecute an infringement action without joining the other co-inventors. Ownership laws may vary in other countries.

Others may independently develop similar products or processes to those developed by Axonyx, and design around any products and processes covered by Axonyx's patents. Defense and enforcement of Axonyx's intellectual property rights can be expensive and time consuming, even if the outcome is favorable to Axonyx. It is possible that patents issued to or licensed to Axonyx will be successfully challenged, that a court may find that Axonyx is infringing validly issued patents of third parties, or that Axonyx may have to alter or discontinue the development of its products or pay licensing fees to take into account patent rights of third parties.

In April of 1997, NYU granted Axonyx an exclusive license to certain patents and patent applications. Pursuant to an intellectual property agreement, an additional patent application in this technology was assigned to Axonyx. These patents and patent applications relate to beta-breaker peptide analogs capable of inhibiting the formation of amyloid or amyloid-like deposits (AIPs and PIPs). Axonyx sublicensed this technology to ARS. See "Axonyx's Business Out-Licensed Technology".

Axonyx filed a U.S. trademark application for "POSIPHEN" and also has filed foreign trademark applications.

Axonyx has not filed for any copyright protection to date.

Employees

Axonyx currently has six full time employees, two of whom are in administration, one of whom is involved in both management and research and development and three of whom are involved in management.

Properties

During 2005, Axonyx's operations were conducted from its offices in New York, New York, Stevenson, Washington and Salt Lake City, Utah. Axonyx leases approximately 1,014 square feet of office space in New York on a three month renewable basis at a rental rate of $12,400 per month. Axonyx leases approximately 300 square feet of office space in Salt Lake City, Utah, on a month to month basis at $1,100 per month for patent counsel. Since September 2005, Axonyx has not maintained an office in Stevenson, Washington.

Axonyx Europe BV, a wholly owned subsidiary of Axonyx Inc., rents approximately 650 square feet of office space in Leiden, The Netherlands, on a month to month basis at a rental rate of Euro 550 per month.

Legal Proceedings

Several lawsuits were filed against Axonyx in February 2005 in the U.S. District Court for the Southern District of New York asserting claims under Sections 10(b) and 20(a) of the Exchange Act and Rule 10b-5 thereunder on behalf of a class of purchasers of the Axonyx's common stock during the period from June 26, 2003, through and including February 4, 2005, referred to as the class period.

Dr. Marvin S. Hausman, M.D. a director and former Chief Executive Officer of Axonyx, and Dr. Gosse B. Bruinsma, M.D. Axonyx's Chief Executive Officer were also named as defendants in the lawsuits. These actions were consolidated into a single class action lawsuit in January 2006. On April 10, 2006, the class action plaintiffs filed an amended consolidated complaint. Axonyx filed its answer to that complaint on May 26, 2006. Axonyx's motion to dismiss the consolidated amended complaint was filed on May 26, 2006 and will be submitted to the court for a decision following the parties' filing of their legal briefs.

The class action plaintiffs allege generally that Axonyx's Phase III Phenserine development program was subject to alleged errors of design and execution which resulted in the failure of the first Phase III Phenserine trial to show efficacy. Plaintiffs allege the defendants' failure to disclose the alleged defects resulted in the artificial inflation of the price of the Axonyx's shares during the class period.

There is also a shareholder derivative suit pending in New York Supreme Court, New York County, against current and former directors and officers of Axonyx. The named defendants are Marvin S. Hausman, M.D., Gosse B. Bruinsma, M.D., S. Colin Neill, Louis G. Cornacchia, Steven H. Ferris, Ph.D., Gerard J. Vlak, Ralph Snyderman, M.D. and Michael A. Griffith. Defendants are alleged to have breached their duties to Axonyx and misused inside information regarding clinical trials of Phenserine. This action has been stayed pending further developments in the federal class action.

The complaints seek unspecified damages. Axonyx believes the complaints are without merit and intends to defend these lawsuits vigorously. However, Axonyx cannot make assurances that it will prevail in these actions, and, if the outcome is unfavorable to Axonyx, its reputation, operations and share price could be adversely affected.

Web Site Access to SEC Filings

Axonyx maintains an Internet website at *www.axonyx.com.* Axonyx makes available free of charge on its Internet website its Annual Report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after Axonyx electronically files such material with, or furnishes it to, the SEC. The public may also read and copy any materials that Axonyx files with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330.

TORREYPINES' BUSINESS

Overview

TorreyPines discovers and develops novel small molecules to treat diseases and disorders of the central nervous system, or CNS, including migraine, chronic pain, and Alzheimer's disease, or AD. Through its in-house discovery programs and strategic in-licensing, TorreyPines has built a promising pipeline of five product candidates, including tezampanel, an AMPA/kainate, or AK, receptor antagonist that has successfully completed five Phase IIa trials for pain indications, and NGX267, an oral muscarinic receptor agonist in Phase I studies for the treatment of both the symptoms and progression of AD. TorreyPines believes that its proprietary product candidates, experienced management team, discovery operation, and in-depth focus on CNS diseases and disorders provide it with a competitive advantage in building a premier CNS biopharmaceutical company.

Migraine and Chronic Pain Product Candidates

TorreyPines' migraine and chronic pain franchise is comprised of two AK receptor antagonists, tezampanel and NGX426. AK receptors are part of the biological pathway that transmits pain signals. Tezampanel and NGX426 work by selectively binding to three AK receptors to block the transmission of pain signals. As opposed to other migraine and chronic pain treatments such as triptans, COX-2 inhibitors, and opioids, tezampanel and NGX426 do not constrict blood vessels, affect body systems external to the CNS, or interact with opioid receptors.

TorreyPines is developing tezampanel and NGX426 as treatments for migraine, a form of chronic pain. In characterizing migraine as a chronic, albeit intermittent, pain disorder, TorreyPines intends to introduce a new paradigm to treat migraine that may not only relieve the acute pain, but also address underlying mechanisms that precipitate the migraine. TorreyPines believes that tezampanel and NGX426 are first-in-class treatments for migraine and chronic pain that potentially will have the following product profile:

- Comparable efficacy to morphine and other prescription pain relievers;
- Improved safety profile relative to morphine and other prescription pain relievers, including, theoretically, no physical dependence; and
- Ability to address central sensitization, an underlying component of chronic pain states including migraine.

Tezampanel, the lead AK antagonist, has been studied in two Phase I and five Phase IIa clinical trials. The Phase IIa studies were double-blind, placebo-controlled trials that evaluated the safety and efficacy of tezampanel in validated proof of concept models for migraine, post-operative pain, and neuropathic pain. In all of these studies, tezampanel was shown to be more effective than placebo. TorreyPines intends to initiate a Phase IIb study of tezampanel, administered subcutaneously, or by injection under the skin, to subjects with migraine in the second half of 2006.

NGX426, TorreyPines' second compound for pain, is an orally administered form of tezampanel. In June 2006, TorreyPines filed an IND for NGX426 with the FDA and, in August 2006, TorreyPines initiated a Phase I study. TorreyPines intends to develop NGX426 initially as a treatment for migraine with additional development targeted toward chronic pain conditions such as neuropathic pain.

Alzheimer's Disease Product Candidates

TorreyPines' has three product candidates, NGX267, NGX292, and NGX555, in development which may represent a new generation of therapies that are intended to target the disease mechanism underlying AD, the most common form of dementia in the elderly. Current treatments only improve the symptoms of AD and do not prevent the disease from progressing and worsening. TorreyPines

believes that its AD compounds may represent promising new therapies as disease modifying agents that not only treat the symptoms of AD but may also delay the onset or slow the progression of AD.

The primary mechanism of action of TorreyPines' three product candidates for AD is the reduction of toxic plaques, or deposits, in the brain. This mechanism is based on the amyloid hypothesis, which implicates these plaques as a significant cause of AD. These plaques contain a peptide, or a small fragment of protein, called amyloid β, or $A\beta_{42}$, which is believed to contribute to the onset and progression of AD. Many researchers believe that drugs that lower the level of the $A\beta_{42}$ peptide represent promising disease modifying therapies for AD.

NGX267, TorreyPines' most advanced compound in development for AD, is an orally administered muscarinic agonist that has completed two Phase I single dose studies. In animals, NGX267 has been shown to prevent formation of toxic plaques, to lower brain and plasma levels of $A\beta_{42}$, the primary component of the plaques, and to improve behavioral symptoms. TorreyPines currently expects to initiate a Phase I multiple dose study of NGX267 by mid-2007.

NGX292, a follow-on muscarinic agonist, is a metabolite of NGX267 and has a mechanism of action similar to NGX267. NGX292 is currently in preclinical testing and may be developed to treat both the symptoms of AD as well as to modify the progression of the disease.

NGX555, a gamma-secretase modulator, was discovered at TorreyPines and is currently in preclinical testing. NGX555 is the lead compound in a series of potent compounds that reduce levels of $A\beta_{42}$. NGX555 is being developed to delay the onset or to slow the progression of AD.

Alzheimer's Disease Discovery Programs

TorreyPines has two drug discovery programs, both undertaken in collaboration with Eisai Co., Ltd., a leader in AD research. These programs focus on discovering and validating novel molecular targets and small molecules for AD.

Gamma-secretase Modulator Program

The gamma-secretase modulator program is rooted in the amyloid hypothesis as a cause of AD. The goal of this program is to identify novel small molecules that lower levels of $A\beta_{42}$, the primary component of the toxic plaques found in the brain of patients with AD. In doing so, TorreyPines intends to discover and develop therapies that not only provide symptomatic relief but also potentially modify the course of AD. The lead compound in this program, NGX555, was advanced into preclinical development in 2006.

Alzheimer's Disease Genetics Research

TorreyPines' genetics research integrates human genetic mapping, genomics, and bioinformatics. With data suggesting that up to 80% of cases of AD may be inherited, TorreyPines' program represents one of the most comprehensive efforts to date to identify the complete set of genes responsible for AD. The goal of the program is two-fold: to provide new targets for drug discovery and to identify methods to reliably predict and diagnose AD. TorreyPines' researchers have identified or validated three genes and a number of gene candidates are in the experimental validation stage.

Business Strategy

TorreyPines' mission is to discover, develop and commercialize important new therapies to treat patients suffering from migraine, chronic pain, and AD. Key aspects of TorreyPines' strategy include the following:

Focus on treatments for CNS diseases and disorders.

TorreyPines has established an intellectual critical mass in CNS drug development by attracting management and researchers experienced in the field of CNS diseases and disorders and through a long-standing collaboration with Eisai. Combining this intellectual capability with its CNS-focused pipeline and the operational and technological expertise of its senior team, TorreyPines believes it can identify and cost-effectively develop and commercialize new and meaningful CNS therapies.

Maintain a balanced and diversified CNS portfolio with respect to development time and risk

TorreyPines intends to maintain a balanced portfolio of CNS product candidates, taking into account overall development time and risk, to optimize the time to value-creation. TorreyPines' product candidates for migraine have demonstrated positive Phase IIa results and have a shorter development timeline when compared to product candidates for the treatment of AD, which represent longer term opportunities. TorreyPines believes that this diversified approach to development, potentially supplemented by in-house discovery and strategic product acquisitions, will position it well to maximize value in the near term while sustaining long term growth.

Pursue broad market opportunities.

TorreyPines plans to establish its pain franchise by developing tezampanel and the oral prodrug, NGX426, initially as treatments for migraine. After the product is approved for migraine, TorreyPines intends to develop NGX426 for neuropathic pain to access the broader market of chronic pain therapies. In addition, preclinical and clinical data suggest that both tezampanel and NGX426 have the potential to be effective across a wide range of therapeutic applications both within and extending beyond the area of chronic pain.

TorreyPines intends to develop its muscarinic agonist compounds, NGX267 and NGX292, for symptomatic improvement of AD as well as disease modification. In doing so, these products potentially could be developed for use not only in patients with mild to moderate AD, but also for use by the larger and growing segment of the population with mild cognitive impairment, a memory disorder that is considered a precursor of AD.

Access new product candidates through in-house discovery efforts and strategic product acquisitions.

TorreyPines believes that its in-house discovery operation is a critical component in fulfilling its mission to deliver important new CNS therapies to patients. In addition to internally growing TorreyPines' product candidate pipeline, its discovery operations reinforce a corporate culture of innovation and leading-edge science that TorreyPines believes will attract highly accomplished scientists. Supplementing these discovery operations, TorreyPines may pursue additional product candidate acquisitions and in-licenses.

Establish strategic alliances to maximize the commercial potential of TorreyPines' product candidates.

To succeed in creating long-term value and in delivering meaningful new therapies to patients, TorreyPines intends to advance its compounds to key value points, such as early proof of concept, and then selectively enter into strategic alliances. These alliances are intended to fund expensive, late stage development programs in chronic pain and AD as well as to provide the large sales forces needed for

commercialization. TorreyPines believes this approach will yield alliances with attractive valuations while providing needed assistance for development and commercialization of its product candidates.

Attract, retain, and develop world-class scientists, drug developers, and management.

TorreyPines believes that its employees and the culture in which they operate provide the platform for building and sustaining its competitive advantage. Of TorreyPines' 44 employees, approximately 34 are engaged in research and drug development; of those, 19 have Ph.D. or M.D. degrees, and more than half of TorreyPines' total employees have advanced degrees. In addition, TorreyPines' senior management team has extensive and recognized track records in CNS drug development. Prior to joining TorreyPines, key scientific and management personnel of TorreyPines were directly involved in the development of Exelon® for AD, Maxalt® for migraine, and Stadol® for pain.

Product Development Programs

TorreyPines' product development efforts focus on treatments for diseases and disorders of the CNS. Within the broad CNS therapeutic category, TorreyPines is currently concentrating its efforts in two main areas: chronic pain, including migraine, and AD.

TorreyPines' current product development programs are illustrated in the following chart:

Product Candidate	Trageted Indication	Development Status	Commercial Rights
Tezampanel	Migraine	Phase II	TorreyPines
NGX426	Migraine, Chronic Pain	Phase I	TorreyPines
NGX267	Alzheimer's disease	Phase I	TorreyPines
NGX292	Alzheimer's disease	Preclinical	TorreyPines
NGX555	Alzheimer's disease	Preclinical	TorreyPines

In the above table, preclinical development means that the product candidate is undergoing studies, including animal toxicology studies performed under Good Laboratory Practice conditions, that are required for filing an IND with the FDA or a comparable application with other regulatory agencies to allow human clinical studies. Clinical trials typically are conducted in sequential phases, but the phases may overlap. In Phase I, the initial introduction of the drug into human subjects, the drug is usually tested in healthy volunteers for safety and, as appropriate, for absorption, metabolism, distribution and excretion. Phase II usually involves studies designed to identify doses of the drug that result in suitable efficacy, safety and tolerance in patients with the targeted disease or disorder. Often, Phase II begins with a Phase IIa study to determine preliminary efficacy, or proof of concept. Phase IIa studies usually involve testing one dose of the drug in a limited number of patients. Phase IIb studies are typically conducted in a larger sample of the defined population to determine if one or more dose strengths are effective in treating the targeted disease or disorder.

Migraine and Chronic Pain Product Candidates

TorreyPines intends to establish a pain franchise initially in migraine. Tezampanel, the lead product candidate, is an AK receptor antagonist, given subcutaneously, which has successfully completed Phase IIa studies in migraine and in select chronic pain indications. NGX426 is an orally administered form of tezampanel that entered Phase I testing in August 2006. Because NGX426 is an oral formulation, in addition to migraine, TorreyPines intends to develop NGX426 for neuropathic pain and potentially other chronic pain indications as follow-on indications. Tezampanel and NGX426 were in-licensed from Eli Lilly in 2003.

Pain Transmission

Understanding pain and the mechanism of pain transmission is central to developing drugs that control or eliminate pain. Pain can occur from injury, a disorder such as migraine, a disease process such as arthritis, or as a predictable response to an event such as surgery. Regardless of cause, pain is initially detected at the site of injury by pain receptors. These receptors are nerve cells that recognize and transmit pain signals along biological paths, called pain transmission pathways. These pathways begin at the injured site, proceed through the spinal cord, and end in the brain where the pain message is received.

The transmission of pain signals between nerves involves stimulating a variety of receptors and transmitters, called neurotransmitters, in the CNS. Glutamate is the most abundant excitatory neurotransmitter and it has been implicated in pain transmission and perception. AMPA/kainate, or AK, receptors are subtypes within the glutamate system. AMPA receptors, especially the GluR1 and GluR2 receptors, are active in chronic pain states and a kainate receptor, GluR5, is stimulated during pain transmission. Pharmacologically, AK receptor antagonists such as tezampanel and NGX426, selectively block transmission of pain signals that are mediated through the activation of glutamate, and, in doing so, potentially interrupt a process called central sensitization.

Central Sensitization

The body responds to pain in two stages, acute and secondary, and the AK receptors play key roles in both stages. In an acute response, the AK receptors immediately transmit pain signals from the damaged tissue to the brain. In a secondary response, initiated by repetitive stimulation of the AK receptors, such as in chronic pain conditions, a process called central sensitization is triggered that results in increased pain signaling to the brain. In central sensitization, the body develops a memory for pain that alters subsequent responses to both painful and normally non-painful stimuli. In contrast to activation and deactivation of the pain pathway as a normal adaptive response, continued activation of the pain pathway can produce long-term changes in the CNS. Clinically, central sensitization can be manifested by exaggerated and painful responses to stimuli such as temperature, sound, and touch. Central sensitization is considered to be a key component of many persistent or recurring pain syndromes including migraine and chronic neuropathic pain.

A New Treatment Paradigm for Migraine

Despite being a common disorder, the biological cause of migraine is poorly understood. Until recently, the prevailing theory of the cause of migraine was dilation of the blood vessels in the brain, referred to as vasodilation, that results in increased blood flow. Currently prescribed treatments for migraine such as ergotamines and triptans support this theory because they work by constricting blood vessels. These types of drugs that reduce vasodilation are only effective in relieving the pain and the accompanying symptoms of the current migraine attack. None of these drugs address other biological mechanisms that may initiate, aggravate, prolong or increase the frequency of migraines.

It has been hypothesized that vasodilation may not be the sole cause or even the initiating cause of a migraine. An emerging theory now characterizes migraine as a chronic neurological disorder of the brain, in which vascular changes are secondary to other changes in the brain. This new theory suggests that a migraine is triggered by the release of excessive amounts of glutamate in the brain which stimulates AK receptors and leads, in turn, to the transmission of pain signals along the pain pathway. It is believed that in successive migraine attacks, repetitive stimulation of AK receptors initiates the central sensitization process. In the migraine patient, central sensitization is manifested as increased sensitivity to light, sound, touch, or temperature, which worsens during the migraine and in subsequent migraines.

The 2005 American Migraine Prevalence and Prevention, or AMPP, study, sponsored by the National Headache Foundation, estimated that there are approximately 30 million people who suffer from migraines in the United States, with fewer than half that number seeking treatment. Since 1992 when Imitrex®, the first triptan and market leader, was introduced, a number of new products have entered the $2 billion U.S. market for prescription medicines for migraine. However, there has been no drug with a new mechanism of action introduced in the migraine market in over a decade. The AMPP study also confirmed that, despite the number of drugs available to treat migraines, large numbers of migraine sufferers are not getting adequate treatment or the relief they need.

In viewing migraine as a neurological disorder that is characterized by chronic, albeit intermittent, pain, TorreyPines intends to introduce a new paradigm to treat migraine. TorreyPines believes that tezampanel and NGX426, by selectively binding to AK receptors GluR1, GluR2, and GluR5, will block the transmission of pain signals mediated through the activation of glutamate and interrupt the central sensitization process, thus potentially reducing the frequency or severity of subsequent attacks. In addition, unlike triptans and ergotamines, tezampanel and NGX426 do not constrict blood vessels and, theoretically, there should be no restrictions on their use in patients with hypertension, peripheral vascular disease, coronary artery disease, and cerebrovascular disease.

Tezampanel Clinical Hypothesis

Preclinical and clinical data suggest that tezampanel has the potential to be effective across a wide range of therapeutic applications both within and extending beyond the area of chronic pain. Tezampanel was shown to be efficacious in validated preclinical models of persistent pain, epilepsy, cerebral neuroprotection, generalized anxiety disorder, and muscle spasticity and rigidity secondary to spinal cord injury. In double-blind, placebo-controlled, Phase IIa studies, tezampanel was statistically superior to placebo in relieving low back pain and pain from spinal cord trauma, migraine, and post-operative pain. The Phase IIa study in the treatment of migraine demonstrated that tezampanel was more effective than placebo, and similarly as effective as subcutaneous Imitrex®, in relieving pain and in treating the typical symptoms of migraine including nausea, vomiting, and sensitivity to light and sound. In this proof of concept study, tezampanel was nominally better tolerated than Imitrex® although the small number of patients provided limited data for this comparison. This proof of concept study validated the experimental premise that tezampanel, a compound which does not constrict blood vessels, relieves migraine pain and interrupts the initiation of central sensitization through a novel mechanism that potentially addresses the underlying cause of migraine.

Tezampanel and NGX426 Development Status

TorreyPines is currently developing tezampanel given by subcutaneous administration. In June 2005, TorreyPines amended the original IND submitted by Eli Lilly and initiated a Phase I single dose pilot study of tezampanel given subcutaneously to healthy adult males. Shortly after study initiation, the FDA advised TorreyPines that it had some questions about the data in the IND and placed the IND on clinical hold. TorreyPines terminated the ongoing Phase I study and promptly submitted a formal response to the FDA's questions. The FDA subsequently released the clinical hold.

In November 2005, TorreyPines initiated a second Phase I single dose, placebo-controlled, dose-escalation study of tezampanel in healthy adult males. The goal of the study was to evaluate the safety and tolerability, to identify the maximum tolerated single dose, and to characterize the pharmacokinetics of single doses of tezampanel given by subcutaneous injection. This study concluded in May 2006 with 110 healthy male adults enrolled, with 88 subjects exposed to tezampanel. The maximum tolerated dose was determined to be a 100 mg single dose. At all doses up to and including 100 mg the drug was well tolerated. Preliminary results of this study were presented to the FDA during a pre-IND meeting for NGX426 in May 2006.

TorreyPines intends to initiate a Phase IIb, dose ranging study of tezampanel, given subcutaneously, in patients who suffer migraines in the second half of 2006. The study is planned as a four arm, dose-ranging study to evaluate three doses of tezampanel compared to placebo. The total sample size is estimated to be approximately 300 subjects.

NGX426, the oral prodrug of tezampanel, is entering Phase I. In June 2006, TorreyPines filed an IND with the FDA and, in August 2006, TorreyPines initiated a first-in-human study.

Alzheimer's Disease Product Candidates

TorreyPines has three product candidates that are being developed to treat AD. Two of these candidates, NGX267 and NGX292, are muscarinic agonists that may be developed to treat the symptoms of AD as well as to delay the onset or to slow the progression of the disease. NGX267 has completed two Phase I single dose studies, and NGX292, a metabolite of NGX267, is in preclinical testing. The third product candidate, NGX555, is a gamma-secretase modulator in preclinical testing that is also being developed to treat the progression of AD.

AD, the major cause of dementia in the elderly, is a chronic neurodegenerative disorder. According to the Alzheimer's Association, an estimated 4.5 million Americans have AD, including 1 in 10 people over 65 and nearly half of those over 85. The report further states that, between 1980 and 2000, the number of Americans with AD has more than doubled and by 2050 the number of individuals with AD could range from 11-16 million Americans. The characteristic signs and symptoms of AD are gradual and characterized by a progressive decline in memory, problems with reasoning, difficulty in learning, and loss of language skills as well as secondary impairments in affect, behavior and basic activities of daily living.

It has long been hypothesized that the cause of AD lies in the build up of protein deposits, referred to as amyloid plaques, in the brain. When examined after death, the major pathological finding with respect to AD is the abundance of these amyloid plaques in key areas of the brain that control memory and cognition. The plaques are largely comprised of aggregations of a peptide referred to as amyloid ß, or Aß peptide. There is considerable evidence that the 42- variant of Aβ, referred to commonly as $A\beta_{42}$, plays a significant role in the cause of AD, thus forming the basis of the amyloid hypothesis. This hypothesis suggests that reducing brain levels of $A\beta_{42}$ should prevent the deposit of the amyloid plaques in the brain and therefore delay the onset or slow the progression of AD.

AD is also associated with a loss of cholinergic neurons, or nerve cells that release acetylcholine, a key substance involved in learning and memory. The loss of cholinergic neurons, resulting in a depletion of acetylcholine, is progressive and results in profound memory disturbances and irreversible impairment of cognitive function.

There are currently no approved medicines to treat the underlying cause of AD or to modify the progression of the disease. All of the approved medicines, as well as a many of the drugs under development for AD, treat or intend to treat only the signs and symptoms of AD. The most commonly prescribed drugs, acetlycholinesterase inhibitors, such as Aricept, prevent the breakdown of intact acetylcholine leading to symptomatic improvement in memory, thinking, and activities of daily living. However, as the disease progresses, these drugs may lose their effectiveness and they are unable to slow the neurological decline.

NGX267 and NGX292

TorreyPines' two muscarinic receptor agonist product candidates in development for the treatment of AD, NGX267 and NGX292, were in-licensed from Life Science Research Israel, or LSRI, in 2004, where they were discovered by Dr. Abraham Fisher, a pre-eminent scientist in the field of Alzheimer's research.

Rationale for M1 Muscarinic Receptor Agonists in Alzheimer's Disease

Although loss of cholinergic neurons in the brain is associated with AD, evidence suggests that a specific type of cholinergic neuron is preserved. Muscarinic acetylcholine receptors existing on these surviving cholinergic neurons are thought to play an important role in memory and cognitive processing. Activation of the M1 receptor, one of the five subtypes of muscarinic receptors, is thought to have the most potential for improving cognitive processing due to the predominance of M1 receptors in areas of the brain involved in cognition and memory. A selective M1 agonist, therefore, potentially could improve memory and cognitive disturbances associated with AD similar to that observed using the marketed acetylcholinesterase inhibitors. Further, because M1 receptor activation has been shown in preclinical studies to decrease amyloid β production and to inhibit the formation of plaques, compounds that selectively activate the M1 receptor may offer potential for both symptomatic improvement and disease modification in AD.

NGX267 Mechanism of Action

The pharmacological properties of NGX267 partially mimic the action of acetylcholine by stimulating the M1 receptors located on surviving cholinergic neurons. Consistent with this hypothesis, in animal models that predict a compound's ability to treat symptoms of AD, NGX267 was effective in improving learning and memory. In addition, in transgenic mice, a specific animal model used in AD studies, NGX267 has been shown to reduce amyloid β in the brain and plasma and to prevent the formation of amyloid plaques, providing support for its use as a treatment to delay the onset or to slow the progression of AD.

NGX267 and NGX292 Development Status

TorreyPines' lead AD compound, NGX267, is in Phase I development. Two Phase I studies have been completed and a third Phase I study is planned to start by mid-2007.

In July 2005, TorreyPines initiated a Phase I, first-in-human study of NGX267. The study was designed as a double-blind, placebo-controlled, ascending single dose study. The goal of the study was to identify the maximum tolerated dose and to evaluate the safety and tolerance of single doses of NGX267 given to healthy adult males. The study, completed in October 2005, enrolled a total of 34 subjects and identified the maximum tolerated single dose as 35 mg.

In January 2006, TorreyPines initiated a second Phase I study of similar design in a population of healthy elderly males and females. The study enrolled a total of 26 subjects and confirmed the safety and tolerability of single doses of NGX267 up to 15 mg in an older population. TorreyPines plans to initiate a multiple dose study of NGX267 by mid-2007.

NGX292, the major metabolite of NGX267, demonstrates a biological profile similar to the profile of NGX267. NGX292 is in preclinical testing.

Drug Discovery Programs

TorreyPines has two drug discovery programs, a gamma-secretase modulator program and an AD genetics research program, both undertaken in collaboration with Eisai Co., Ltd., or Eisai, a leader in AD research. These programs are focused on discovering and validating novel molecular targets and small molecules for AD.

Gamma-secretase Modulator Program

TorreyPines' approach to AD drug discovery is firmly rooted in the amyloid hypothesis. First generation approaches to lowering Aß42 focused on inhibiting, as opposed to modulating, the activity of a large, complex and essential enzyme called gamma-secretase that is involved in the production of

Aß42. Gamma-secretase inhibitors have been associated with side effects presumably because they completely block the functioning of the enzyme.

TorreyPines has identified a series of potent, second generation compounds that modulate, or influence, the gamma-secretase enzyme as opposed to inhibiting it. These gamma-secretase modulators, or GSMs, reduce the brain levels of $A\beta_{42}$ while maintaining the critical overall balance of amyloid β in the brain. They do this by influencing the enzyme to make shorter, less toxic Aß peptides at the expense of the longer, toxic $A\beta_{42}$ peptide. Because GSM compounds allow the gamma-secretase enzyme to perform its normal functions, they appear to have addressed some of the side effects associated with the first generation compounds that fully inhibited enzyme functioning.

TorreyPines' GSM compounds are oral, small molecules that have been shown to reduce plasma and brain $A\beta_{42}$ in animals. Based on these favorable findings, TorreyPines has advanced the lead compound, NGX555, into preclinical development.

Alzheimer's Disease Genetics Research Program

Since its inception in 2001, TorreyPines' AD genetic research program has been a collaborative effort with Dr. Rudolph E. Tanzi, co-founder of TorreyPines and Director, Genetics and Aging Research Unit at Massachusetts General Hospital, or MGH. Dr. Tanzi, a pre-eminent geneticist, has been involved in the discovery of all three early-onset familial AD genes. The goals of TorreyPines' genetics research program are two-fold: to provide new targets for drug discovery, and to facilitate methods for reliably predicting and diagnosing AD.

Recent data suggests that up to 80% of cases of AD have a genetic component and in 2005, the scope of TorreyPines' AD genetics program was significantly expanded to include a comprehensive and state-of-the-art screening of over 400 families, comprising more than 1600 subjects with late-onset AD. The resulting whole-genome family-based association screen is expected to identify up to 95% of the genetic variants and mutations conferring risk or protection for AD. Once completed, this screening may enhance TorreyPines' ability to identify novel pathways involved in the cause and course of AD and to strengthen TorreyPines' pipeline with new targets for drug discovery. To date, TorreyPines' researchers have discovered or validated three new AD genes and a number of gene candidates are currently undergoing validation.

Proprietary Rights

Patent Applications

TorreyPines' policy is to pursue patents, both those generated internally and those licensed from third parties, pursue trademarks, maintain trade secrets and use other means to protect its technology, inventions and improvements that are commercially important to the development of its business.

TorreyPines' success will depend significantly on its ability to:

- obtain and maintain patent and other proprietary protection for the technology, inventions and improvements it considers important to its business;
- defend its patents;
- preserve the confidentiality of its trade secrets; and
- operate without infringing the patents and proprietary rights of third parties.

As of June 30, 2006, TorreyPines controlled a total of 123 patents and patent applications worldwide. Of these, 120 of these pertain to its key product development programs, and comprise 5 pending U.S. patent applications, 14 issued U.S. patents, 52 pending foreign patent applications, and 49 issued foreign patents. Issued patents, and patents that may issue from these pending applications,

would expire between 2010 and 2024. In certain countries, patents covering TorreyPines' drug products may be eligible for up to five years of patent term extension.

Trademarks, Trade Secrets and Other Proprietary Information

TorreyPines owns the TORREYPINES THERAPEUTICS & Design trademark, which is covered by pending applications for registration in the U.S. Patent & Trademark Office and in the trademark offices of Japan, Canada, and the European Community. TorreyPines also owns its Tree Logo trademark, which is covered by pending applications for registration in the U.S. Patent & Trademark Office.

In addition, TorreyPines depends upon trade secrets, know-how and continuing technological improvements to develop and maintain its competitive position. To maintain the confidentiality of trade secrets and proprietary information, TorreyPines requires its employees, scientific advisors, consultants and collaborators, upon commencement of a relationship with TorreyPines, to execute confidentiality agreements and, in the case of parties other than its research and development collaborators, to agree to assign their inventions to TorreyPines. These agreements are designed to protect TorreyPines' proprietary information and to grant TorreyPines ownership of technologies that are developed in connection with their relationship with TorreyPines. These agreements may not, however, provide protection for TorreyPines' trade secrets in the event of unauthorized disclosure of such information.

Strategic Alliance, License and Other Commercial Agreements

TorreyPines understands that drug development is long and costly and that it may need strategic partners to maximize the potential of one or more of its product candidates. TorreyPines' goal is to strike a balance between advancing product development at TorreyPines' expense and recognizing the incremental value achieved at points along the development path. Overall, TorreyPines' strategy is to reach key points of value recognition, such as early proof of concept data, in its programs before entering into strategic alliances. TorreyPines believes that, in this way, significant commercial value in the products can be retained while obtaining strategic and financial assistance to advance its programs. TorreyPines speaks to prospective partners on a regular basis, understanding that discussions and ultimately mutually beneficial strategic alliances are the result of ongoing relationship building.

In addition to strategic development alliances, TorreyPines' alliance strategy also includes entering into alliances that provide drug developers with access to TorreyPines' drug discovery technologies. To date, TorreyPines has entered into two such strategic alliances with Eisai, one for its gamma-secretase modulator program and one for its AD genetics research program.

Since inception, TorreyPines' revenue has been derived from its strategic alliances. For the fiscal year ended December 31, 2005, Eisai accounted for 100% of TorreyPines' revenue. For the six months ended June 30, 2006, Eisai accounted for 100% of TorreyPines' revenue.

Eli Lilly

In April 2003, TorreyPines entered into an agreement with Eli Lilly to obtain an exclusive license to Eli Lilly's AK antagonist assets including its lead drug candidate, tezampanel, and NGX426. TorreyPines paid Eli Lilly an up-front license fee of $6 million under the agreement. If specified development, regulatory and commercial milestones are achieved, TorreyPines will be obligated to make milestone payments to Eli Lilly. TorreyPines is also obligated to pay royalties to Eli Lilly on any sales of tezampanel and NGX426. TorreyPines is required to use commercially reasonable efforts to develop and commercialize the product candidates subject to the agreement, including use of commercially reasonable efforts to achieve specified development events within specified timeframes.

Under the agreement, if TorreyPines decides to sublicense its rights to commercialize any of the product candidates licensed to it under the agreement in the United States or all of its rights under the agreement worldwide, it is obligated first to provide Eli Lilly the opportunity to negotiate to obtain those rights. Eli Lilly must notify TorreyPines of its interest in exercising its negotiation rights within a specified period and, if it is interested, has a specified period from the date of TorreyPines' original notice to negotiate a mutually acceptable agreement. If an agreement is not reached within that time, TorreyPines is free to enter an agreement with the outside party as long as the terms of that agreement are superior to the terms last offered by Eli Lilly.

The term of the agreement will continue until all royalty payment obligations have expired, unless the agreement is earlier terminated. Eli Lilly may terminate the agreement for any uncured material breach of the agreement by TorreyPines, including any breach of its diligence obligations, or if TorreyPines goes into bankruptcy or makes a general assignment of its assets to its creditors. If Eli Lilly terminates the agreement for any of these reasons, all of the rights granted to TorreyPines under the agreement will revert to Eli Lilly, and TorreyPines is obligated to grant Eli Lilly a non-exclusive license to any of TorreyPines' proprietary technology necessary to develop and commercialize tezampanel and NGX426 and to any regulatory documentation it may have regarding the products. Eli Lilly is obligated to pay TorreyPines a royalty on any sales of tezampanel and NGX426 until TorreyPines has received a maximum specified amount from Eli Lilly. Eli Lilly may also terminate the agreement if there is a force majeure event that prevents TorreyPines from performing its obligations under the agreement, or if there is a change of control of TorreyPines, unless the party acquiring TorreyPines in the change of control undertakes all of its obligations under the agreement. If Eli Lilly terminates the agreement for any of these reasons, Eli Lilly and TorreyPines will negotiate in good faith reasonable compensation from Eli Lilly to TorreyPines for use of any of TorreyPines' proprietary technology or regulatory documentation by Eli Lilly.

Life Science Research Israel (LSRI)

In May 2004, TorreyPines entered into an agreement with LSRI to obtain an exclusive license to their muscarinic agonist assets including its lead drug candidate for AD, NGX267, and NGX292. No up-front license fee was paid. For the first two years of the agreement, TorreyPines provided specified amounts of research funding to LSRI. To date, TorreyPines has paid LSRI approximately $2.15 million upon achievement of specified development milestones. If additional specified development, regulatory and commercial milestones are achieved, TorreyPines will be obligated to make milestone payments to LSRI, which may total up to an additional $18.25 million. TorreyPines is also obligated to pay royalties to LSRI on sales of NGX267 and NGX292 and to pay LSRI a percentage of specified payments it receives upon sublicensing rights to either compound, subject to a minimum amount payable to LSRI for the first sublicense. If TorreyPines sublicenses rights to a compound after a specified point in development of the compound, LSRI will select the level of royalty and sublicense payments from among alternatives provided in the agreement. TorreyPines is required to use commercially reasonable efforts to develop and commercialize the product candidates subject to the agreement, including use of commercially reasonable efforts to achieve specified development events within specified timeframes.

The term of the agreement will continue until all payment obligations have expired, unless the agreement is earlier terminated. LSRI may terminate the agreement for uncured material breach of the agreement by TorreyPines, including any breach of TorreyPines' diligence obligations, or if TorreyPines goes into bankruptcy, makes a general assignment of its assets to its creditors, or dissolves or winds up its business. If TorreyPines terminates the agreement other than for uncured material breach of the agreement by LSRI or bankruptcy, general assignment of assets to creditors, dissolution or winding up of LSRI, all of the rights granted to TorreyPines under the agreement will revert to LSRI, and TorreyPines is obligated to provide LSRI data generated on NGX267 and NGX292 and grant LSRI a non-exclusive license to any of TorreyPines' intellectual property that is necessary to develop and

commercialize NGX267 and NGX292. LSRI is obligated to pay TorreyPines a royalty on any sales of NGX267 and NGX292 if the termination occurs after a specified level of development has been completed.

Eisai

Since March 2001, TorreyPines has had an ongoing relationship with Eisai with respect to TorreyPines' AD drug and target discovery programs.

2005 AD Genetics Research Program Cooperation Agreement

In October 2005, TorreyPines entered into a cooperation agreement with Eisai to continue to work together on TorreyPines' AD genetics research program that focuses on the discovery of genes responsible for late onset AD. The agreement has a two-year term and may be extended by Eisai for up to an additional 12 months. Under the agreement, Eisai is funding TorreyPines' work regarding the genetics program and Eisai has exclusive, time-limited rights of first negotiation and refusal for gene targets discovered and validated in the course of the genetics program. The payments TorreyPines may receive under this agreement total approximately $15 million which includes research support and a cash payment for the first negotiation and refusal, and an extension fee if Eisai chooses to extend the agreement.

During the term of the agreement, if TorreyPines decides to consider the sale of all of its business, or any portion of its business that includes the genetics program technology, through a merger, sale of assets or similar transaction, TorreyPines must first notify Eisai and Eisai has a time-limited right to discuss a proposal for such a transaction with TorreyPines, which right terminates upon the initial public offering of common stock of TorreyPines.

Under the agreement, both TorreyPines and Eisai have limited termination rights. In an event that Eisai is in breach of the agreement or TorreyPines is in breach of the agreement, both parties must attend an alternative dispute hearing in order to attempt to resolve the breach. If after the hearing, the party in breach is unable or unwilling to resolve the breach, the non-breaching party may terminate the agreement. There is no other right of termination by either us or Eisai under the agreement.

2005 Amyloid Beta Collaboration Agreement

In February 2005, TorreyPines entered into a collaboration agreement with Eisai regarding TorreyPines' program for discovery of novel, small molecule compounds designed to delay the onset or slow the progression of AD. The agreement has a two-year term and may be extended by Eisai for up to an additional 12 months. TorreyPines has received a $10 million cash payment from Eisai in consideration of the rights granted to Eisai under the agreement. Under the agreement, Eisai has exclusive, time-limited rights of first negotiation and refusal for compounds discovered in the course of the program.

During the term of the agreement, if TorreyPines decides to consider the sale of all of its business, or any portion of its business that includes the genetics program technology, through a merger, sale of assets or similar transaction, TorreyPines must first notify Eisai and Eisai has a time-limited right to discuss a proposal for such a transaction with TorreyPines, which right terminates upon the initial public offering of common stock of TorreyPines.

Under the agreement, both TorreyPines and Eisai have limited termination rights. In the event that Eisai is in breach of the agreement or TorreyPines is in breach of the agreement, both parties must attend an alternative dispute hearing in order to attempt to resolve the breach. If after the hearing, the party in breach is unable or unwilling to resolve the breach, the non-breaching party may terminate the agreement. There is no other right of termination by either us or Eisai under the agreement.

University of Iowa Research Foundation

TorreyPines has a license agreement with University of Iowa Research Foundation, or UIRF, pursuant to which UIRF has granted to TorreyPines an exclusive (except as to UIRF and any of its non-exclusive licensees for research purposes) license in the United States, with the right to sublicense, to certain patents and patent applications relating to spinal administration of tezampanel.

If specified regulatory and patent-related milestones are achieved, TorreyPines will be obligated to make milestone payments to UIRF which may total up to $400,000. TorreyPines must also pay UIRF an annual license maintenance fee against which other payments made by TorreyPines to UIRF under the agreement may be credited. TorreyPines is also obligated to pay royalties to UIRF on any sales of tezampanel using the licensed patent rights and to pay UIRF a percentage of specified payments it receives upon sublicensing rights to the licensed patent rights. TorreyPines is required to use commercially reasonable efforts to commercialize products using the licensed patent rights.

This agreement will continue until the expiration of the last to expire of the licensed patents and patent applications unless earlier terminated. UIRF may terminate the agreement for uncured breach of the agreement by TorreyPines, including any breach of TorreyPines' diligence obligations, or if TorreyPines goes into bankruptcy, makes a general assignment of its assets to its creditors, or dissolves or winds up its business.

Johnson & Johnson Development Corporation

TorreyPines has an agreement with Johnson & Johnson Development Corporation, or JJDC, regarding TorreyPines' development work into the effects of using M1 agonists in the treatment of CNS diseases and disorders. Upon completion of a specified level of development of TorreyPines' lead M1 agonist, TorreyPines is obligated to provide results for the compound to JJDC.

For a specified period following receipt of the results, or at an earlier time as agreed to by JJDC and TorreyPines, JJDC has the exclusive right to negotiate with TorreyPines regarding any sale, transfer, license or other distribution of any TorreyPines' intellectual property rights or products related to TorreyPines' M1 agonist program, referred to as an M1 agonist transaction. If an agreement is not reached within that time, then during a specified period after the end of the period of negotiation with JJDC, TorreyPines may enter in an agreement with a third party regarding an M1 agonist transaction on terms that are more favorable to TorreyPines than the terms last proposed by JJDC. If, however, during the specified period after the end of the period of negotiation with JJDC, TorreyPines proposes to enter in an agreement with a third party regarding an M1 agonist transaction on terms that are equivalent to or less favorable to TorreyPines than the terms last proposed by JJDC, TorreyPines must first offer JJDC the right to enter into an agreement with TorreyPines on the terms proposed by the third party. If JJDC notifies TorreyPines that it wishes to complete an M1 agonist transaction on the terms offered by the third party within a specified notice period, then the parties will negotiate an agreement on those terms during a specified negotiation period. If JJDC does not notify TorreyPines that it wishes to complete an M1 agonist transaction on the terms offered by the third party within the specified notice period or if the parties are not able to enter into an agreement on those terms within a specified negotiation period, TorreyPines is free to enter an agreement with the third party as long as the terms of that agreement are no less favorable to TorreyPines than the terms presented to JJDC. JJDC's rights as described above terminate at the end of the specified period after the end of the period of negotiation with JJDC, or, if TorreyPines notifies JJDC during that period of a proposed M1 agonist transaction with a third party on terms that are equivalent to or less favorable to TorreyPines than the terms last proposed by JJDC, the rights terminate at the end of a new designated period for JJDC and TorreyPines to negotiate an agreement upon such new terms.

JJDC may assign its rights under the agreement to one of its affiliates. The provisions of the agreement do not apply to, or restrict TorreyPines with respect to, any sale of all or substantially all of

the business or assets of TorreyPines. TorreyPines will, however, remain subject to the terms of the agreement following any such transaction effected during the term of the agreement, including the transaction with Axonyx.

Competition

TorreyPines and its strategic alliance partners face intense competition. TorreyPines will compete with fully integrated pharmaceutical companies, smaller companies that may be collaborating with larger pharmaceutical companies, academic institutions, government agencies and other public and private research organizations. Many of these competitors have prescription products for migraine, chronic pain, and AD already approved by the FDA or they are pursuing the same or similar approaches to those which constitute TorreyPines' discovery and development platforms and operate larger research and development programs in these fields than TorreyPines. In addition, many of these competitors, either alone or together with their collaborative partners, have substantially greater financial resources than TorreyPines, as well as greater experience in developing drugs, undertaking preclinical testing and human clinical trials, obtaining FDA and other regulatory approvals of drugs, formulating and manufacturing drugs, and launching, marketing, distributing and selling drugs.

TorreyPines believes that competition for the migraine, chronic pain and Alzheimer's disease drugs that it and any future strategic alliance partners may develop will come from companies that are conducting research, engaging in clinical development, or currently marketing and selling therapeutics to treat these conditions. These competitors include the industry's leading CNS companies.

Current Treatments for Migraine

Triptans are the most commonly prescribed drugs for the treatment of moderate to severe migraine. There are seven triptans approved for use and Imitrex®, marketed by GlaxoSmithKline, dominates the market. Other triptans are: Zomig®, Maxalt®, Amerge®, Frova , Axert®, and Relpax®. Patients who suffer from a mild migraine, or are unaware that their headache is a migraine, generally treat themselves with an over-the-counter analgesic such as aspirin or ibuprofen. Patients who present to emergency rooms are treated with triptans and other potent drugs, such as ergotamine tartrate derivatives and opioids.

Migraine and Pain Pipeline

According to PhRMA's 2006 report, *Medicines in Development for Neurologic Disorders,* there are more than 30 companies, among others, seeking to develop compounds to treat migraine and pain disorders or to obtain additional indications to broaden the use of currently approved pain relieving prescription medications. This list includes most of the large pharmaceutical companies such as Abbott Laboratories, AstraZeneca, Eisai, Elan, Eli Lilly, GlaxoSmithKline, Merck, Pfizer, and Wyeth Pharmaceuticals as well as small and mid-sized biotechnology companies.

Current Treatments for Alzheimer's Disease

Despite limited effectiveness, cholinesterase inhibitors are the mainstay treatment option for AD. There are four acetylcholinesterase inhibitors, Aricept, the market leader, Exelon, Razadyne (formally Reminyl), and Cognex, approved for the symptomatic improvement of mild to moderate AD. One additional product, Namenda, a compound with a different mechanism of action, is approved for symptomatic improvement in patients with moderate to severe AD.

Alzheimer's Disease Pipeline

According to PhRMA's 2006 report, *Medicines in Development for Neurologic Disorders,* there are more than 25 companies, among others, seeking to develop compounds to treat AD or to obtain

additional indications to broaden the use of currently approved treatments for AD. This list includes most of the large pharmaceutical companies such as Abbott Laboratories, AstraZeneca, Eisai, Elan, Eli Lilly, GlaxoSmithKline, Johnson & Johnson, Merck, Novartis, Pfizer, and Wyeth Pharmaceuticals as well as small and mid-sized biotechnology companies.

In each of these areas, it is also possible that other companies, including large pharmaceutical companies, may be working on competitive projects of which TorreyPines is not aware.

TorreyPines intends to compete with these companies on the basis of its intellectual property portfolio, the expertise of its scientific personnel and its relationships with key academic thought leaders in the areas of its focus, the effectiveness of its business strategies when compared to its competitors, the depth and breadth of its strategic alliances, TorreyPines' expertise in small molecule drug discovery technology and the availability of working capital to fund operations and advance programs under development.

TorreyPines' success will depend, in part, upon its ability to achieve market share at the expense of existing and established and future products in the relevant target markets. Existing and future products, both branded and generic, as well as technological approaches or delivery systems will compete directly with TorreyPines products. Competing products may provide greater therapeutic benefits for a specific indication, or may offer comparable performance at a lower cost. TorreyPines' competitors may succeed more rapidly than TorreyPines in obtaining FDA approval for product candidates and achieving widespread market acceptance of products. Many of the companies competing against TorreyPines have financial and other resources substantially greater than TorreyPines. In addition, many of TorreyPines' competitors have significantly greater experience in developing, marketing and selling pharmaceutical products, including medicines to treat migraine, chronic pain and AD, testing pharmaceutical and other therapeutic products, and obtaining FDA and other regulatory approvals of products for use in health care.

Manufacturing and Supply

TorreyPines has no manufacturing capabilities. TorreyPines relies on third parties to manufacture bulk compounds and finished investigational medicines for research, development, preclinical and clinical trials. TorreyPines currently utilizes third parties for manufacture of small-scale batches of tezampanel, NGX426 and NGX267 for clinical trials and small-scale batches of NGX292 and NGX555 for preclinical testing.

Since TorreyPines' product candidates are all in an early stage of development, there is no commercial process developed for the synthesis of active pharmaceutical ingredient, or API, for any of its compounds. In addition, final market formulations and delivery systems for drug product have not been identified for any compounds. Achieving a final commercial process for API and obtaining FDA approval for either the API process or the drug product is dependent on third party vendors and could be unsuccessful, result in delays, incur significant and unanticipated costs, or yields lower than anticipated amounts of product.

Commercial quantities of any drugs TorreyPines seeks to develop will have to be manufactured in facilities and by processes that comply with the FDA and other regulations for Good Manufacturing Practices. TorreyPines plans to rely on third parties to manufacture commercial quantities of any products it successfully develops. TorreyPines believes that there are several manufacturing sources available to it on commercially reasonable terms to meet its clinical and any commercial production requirements.

TorreyPines currently relies on third parties for the preclinical or clinical supplies of each of its product candidates and does not currently have relationships for redundant supply or a second source for any of its product candidates. However, TorreyPines believes that there are alternate sources of

supply that can satisfy its preclinical and clinical trial requirements without significant delay or material additional costs.

Sales and Marketing

TorreyPines currently has no marketing, sales or distribution capabilities.

TorreyPines may establish a small, specialty sales and marketing capability if and when it obtains regulatory approval for its lead product candidate, tezampanel, for the treatment of migraine. In the United States, patients in the market for migraine treatments administered subcutaneously are largely managed by neurologists and headache specialists. TorreyPines intends to target these prescribers, which represent a majority of the prescriptions with a relatively small prescriber base.

To market tezampanel outside of the United States, or if and when the oral migraine treatment, NGX426, obtains regulatory approval, or in situations or markets where a more favorable return may be realized through licensing commercial rights to a third party, TorreyPines may license a portion or all of its commercial rights in a territory to a third party in exchange for one or more of the following: up-front payments, research funding, development funding, milestone payments and royalties on drug sales.

Given the early stage of development, TorreyPines does not have a sales and marketing plan for its three product candidates for AD if and when any of these candidates obtains regulatory approval. Further, in order to participate in the commercialization of any of its drugs, it must develop these capabilities on its own or in collaboration with third parties. TorreyPines may also choose to hire a third party to provide sales personnel instead of developing its own staff.

Government Regulation

FDA Requirements for New Drug Compounds

The research, testing, manufacture and marketing of drug products are extensively regulated by numerous governmental authorities in the United States and other countries. In the United States, drugs are subject to rigorous regulation by the FDA. The Federal Food, Drug, and Cosmetic Act, and other federal and state statutes and regulations, govern, among other things, the research, development, testing, manufacture, storage, recordkeeping, labeling, promotion and marketing and distribution of pharmaceutical products. Failure to comply with applicable regulatory requirements may subject a company to a variety of administrative or judicial sanctions, including:

- suspension of review or refusal to approve pending applications;
- product seizures;
- recalls;
- withdrawal of product approvals;
- restrictions on, or prohibitions against, marketing its products;
- fines;
- restrictions on importation of its products;
- injunctions;
- debarment; and

civil and criminal penalties.

The steps ordinarily required before a new pharmaceutical product may be marketed in the United States include:

- preclinical laboratory tests, animal studies and formulation studies according to good laboratory practices, or GLPs;
- submission to the FDA of an IND which must become effective before clinical, or human, testing may commence;
- adequate and well-controlled clinical trials to establish the safety and efficacy of the drug for each indication for which FDA approval is sought according to good clinical practices, or GCPs;
- submission to the FDA of a new drug application, or NDA;
- satisfactory completion of an FDA Advisory Committee review, if applicable;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product is produced to assess compliance with current good manufacturing practices, or cGMP; and
- FDA review and approval of the NDA.

Satisfaction of FDA pre-market approval requirements typically takes several years, and the actual time required may vary substantially based upon the type, complexity and novelty of the product or disease. Government regulation may delay or prevent marketing of potential candidates for a considerable period of time and impose costly procedures upon a manufacturer's activities. Success in early stage clinical trials does not assure success in later stage clinical trials. Data obtained from clinical activities is not always conclusive and may be susceptible to varying interpretations that could delay, limit or prevent regulatory approval. Even if a product receives regulatory approval, later discovery of previously unknown problems with a product may result in restrictions on the product or even complete withdrawal of the product from the market.

Preclinical tests include laboratory evaluation of product chemistry and formulation, as well as toxicology studies to assess the potential safety and efficacy of the product. The conduct of the preclinical tests and formulation of compounds for testing must comply with federal regulations and requirements. The results of preclinical testing are then submitted to the FDA as part of an IND application.

An IND, which must be approved before human clinical trials may begin, will automatically become effective 30 days after the FDA receives it, unless the FDA raises concerns or questions about the IND. If the FDA has questions or concerns, they must be resolved to the satisfaction of the FDA before initial clinical testing can begin. In addition, the FDA may, at any time, impose a clinical hold on ongoing clinical trials. If the FDA imposes a clinical hold, clinical trials cannot commence or recommence without FDA authorization and then only under terms authorized by the FDA. In some instances, the IND process can result in substantial delay and expense.

Clinical trials involve the administration of the investigational new drug to healthy volunteers or patients under the supervision of a qualified investigator. Clinical trials must be conducted in compliance with federal regulations and requirements, under protocols detailing the objectives of the trial, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated, among other things. Each protocol involving testing in the United States must be submitted to the FDA as part of the IND. In addition, an institutional review board, or IRB, at each site at which the study is conducted must approve the protocols, protocol amendments and informed consent documents for patients. All research subjects must provide their informed consent in writing.

Clinical trials to support a new drug application for marketing approval are typically conducted in three sequential phases, but the phases may overlap. In Phase I clinical trials, the initial introduction of

the drug into healthy human subjects or patients, the drug is tested to assess safety, including side effects associated with increasing doses, metabolism, pharmacokinetics and pharmacological actions. Phase II clinical trials usually involves trials in a limited patient population, usually several hundred people, to determine dosage tolerance and optimum dosage, identify possible adverse effects and safety risks, and provide preliminary support for the efficacy of the drug in the indication being studied. In certain patient populations, accelerated approval is available based on Phase II clinical trial data. If a compound demonstrates evidence of effectiveness and an acceptable safety profile in Phase II clinical trials, Phase III clinical trials are undertaken to further evaluate clinical efficacy and safety within an expanded patient population, usually several hundred to several thousand subjects, typically at geographically dispersed clinical trial sites. Phase I, Phase II or Phase III clinical trials of any product candidate may not be completed successfully within any specified time period, if at all.

After successful completion of the required clinical testing, generally an NDA is prepared and submitted to the FDA. FDA approval of the NDA is required before marketing of the product may begin in the United States. The NDA must include the results of extensive preclinical studies and clinical studies and other detailed information, including, information relating to the product's pharmacology, chemistry, manufacture, and controls. The cost of preparing and submitting an NDA is substantial. Under federal law, the submission of NDAs are generally subject to substantial application user fees, currently exceeding $750,000, and the sponsor and/or manufacturer under an approved application are also subject to annual product and establishment user fees, currently exceeding $40,000 per product and $250,000 per establishment. Additional user fees exceeding $300,000 apply for NDA supplements containing clinical data. Fees are waived for the first pre-market application from companies with gross sales of less than $30 million. These fees are typically increased annually.

The FDA has 60 days from its receipt of an NDA to determine whether the application will be accepted for filing based on the agency's threshold determination that the NDA is sufficiently complete to permit substantive review. Once the submission is accepted for filing, the FDA begins an in-depth review of the NDA. Under federal law, the FDA has agreed to certain performance goals in the review of most NDAs. Applications for non-priority drug products are generally reviewed within 10 months. Applications for priority drugs, such as those that address an unmet medical need, are generally reviewed within 6 months. The review process can be significantly extended by FDA requests for additional information or clarification regarding information already provided in the submission.

The FDA may also refer applications for novel drug products or drug products that present difficult questions of safety or efficacy to an advisory committee, typically a panel that includes clinicians and other experts, for review, evaluation and a recommendation as to whether the application should be approved. The FDA is not bound by the recommendation of an advisory committee. Also, before approving an NDA, the FDA will inspect the facility or the facilities at which the product is manufactured to assure that the facilities, methods and controls are adequate to preserve the product's identity, strength, quality and purity.

If FDA evaluations of the NDA and the manufacturing facilities are favorable, the FDA may issue an approval letter, or, in some cases, an approvable letter followed by an approval letter. An approvable letter generally contains a statement of specific conditions that must be met in order to secure final approval of the NDA. If and when those conditions have been met to the FDA's satisfaction, the FDA will typically issue an approval letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications. If the FDA's evaluation of the NDA submission is not favorable, the FDA may refuse to approve the NDA or issue a not approvable letter. A not approvable letter outlines the deficiencies in the submission and may require additional testing or information in order for the FDA to reconsider the application. Even with submission of this additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval. With limited exceptions, the FDA may withhold approval of

a new drug application regardless of prior advice it may have provided or commitments it may have made to the sponsor.

As a condition of NDA approval, the FDA may require post-approval testing and surveillance to monitor the drug's safety or efficacy and may impose other conditions, including labeling restrictions which can materially impact the potential market and profitability of the drug. In addition, a product approval may be withdrawn if compliance with regulatory standards is not maintained or problems are identified following initial marketing.

The FDA has various programs, including FastTrack designation, accelerated approval and priority review that are intended to expedite or simplify the process for reviewing certain drugs. Specifically, drug products that are intended for the treatment of serious or life-threatening conditions and demonstrate the potential to address unmet medical needs may be eligible for FastTrack designation and/or accelerated approval. Products may qualify for accelerated approval based on adequate and well-controlled Phase II clinical trial results that establish that the product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit. As a condition of approval, the FDA may require that a sponsor of a drug product receiving FastTrack or accelerated approval perform post-marketing clinical trials. In addition, if a drug product would provide a significant improvement compared to marketed products, it may be eligible to receive priority review, which shortens the time in which the FDA acts on the sponsor's application. Even if a drug product qualifies for one or more of these programs, the FDA may later decide that the drug no longer meets the conditions for qualification or the time period for FDA review or approval will not be shortened.

After an NDA is approved, the approved product will be subject to certain post-approval requirements, including a requirement to report adverse events and to submit annual reports. In addition, a supplemental NDA may be required for approval of changes to the originally approved indication, prescribing information, product formulation, and manufacturing and testing requirements. Following approval, drug products are required to be manufactured and tested for compliance with NDA and/or compendial specifications prior to release for commercial distributions. The manufacture and testing must be performed in approved manufacturing and testing sites that comply with cGMP requirements and are subject to FDA inspection authority.

Approved drug products must be promoted in a manner that is consistent with their terms and conditions of approval, and that is not false or misleading. In addition, the FDA requires substantiation of any claims of superiority of one product over another, generally through adequate and well-controlled head-to-head clinical trials. To the extent that market acceptance of TorreyPines' product candidates may depend on their superiority over existing therapies, any restriction on TorreyPines' ability to advertise or otherwise promote claims of superiority, or requirements to conduct additional expensive clinical trials to provide proof of such claims, could negatively affect the sales of TorreyPines' products and/or TorreyPines' expenses.

Once a new drug application is approved, the product covered thereby becomes a "listed drug" which can, in turn, be cited by potential competitors in support of approval of an abbreviated new drug application, or ANDA. An ANDA provides for marketing of a drug product that has the same active ingredients, strength, dosage form, route of administration and conditions of use, and has been shown through bioequivalence testing to be therapeutically equivalent to the listed drug. Generally, an ANDA applicant is required only to conduct bioequivalence testing, and is not required to conduct or submit results of preclinical or clinical tests to prove the safety or efficacy of its drug product. Drugs approved in this way, commonly referred to as "generic equivalents" to the listed drug, are listed in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations, which is referred to as the Orange Book, and can often be substituted by pharmacists under prescriptions written for the original listed drug.

Federal law provides for a period of three years of exclusivity following approval of a listed drug that contains previously approved active ingredients but is approved in a new dosage, dosage form,

indication or route of administration or combination, if one of the clinical trials conducted was essential to the approval of the application and was conducted or sponsored by the applicant. During this three year period, the FDA cannot grant effective approval of an ANDA based on that listed drug. Federal law also provides a period of exclusivity for five years following the approval of a drug containing a new chemical entity, except that an ANDA may be submitted after four years following the approval of the original product if the NDA challenges a listed patent as invalid or not infringed.

Applicants submitting an ANDA are required to make a certification with regards to any patents listed for an innovative drug, stating that either there are no patents listed in the Orange Book for the innovative drug, any patents listed have expired, the date on which the patents will expire, or that the patents listed are invalid, unenforceable, or will not be infringed by the manufacture, use, or sale of the drug for which the ANDA is submitted. If an ANDA applicant certifies that it believes all listed patents are invalid or not infringed, it is required to provide notice of its NDA submission and certification to the NDA sponsor and the patent owner. If the patent owner, its representatives or the approved application holder who is an exclusive patent licensee then initiates a suit for patent infringement against the ANDA sponsor within 45 days of receipt of the notice, the FDA cannot grant effective approval of the ANDA until either 30 months have passed or there has been a court decision holding that the patents in question are invalid or not infringed. On the other hand, if a suit for patent infringement is not initiated within the 45 days, the ANDA applicant may bring a declaratory judgment action.

If the ANDA applicant certifies that it does not intend to market its generic product before some or all listed patents on the listed drug expire, then the FDA cannot grant effective approval of the ANDA until those patents expire. The first ANDA submitting a substantially complete application certifying that all listed patents for a particular product are invalid or not infringed may qualify for a period of 180 days of exclusivity against other generics, which begins to run after a final court decision of invalidity or non-infringement or after the applicant begins marketing its product, whichever occurs first, during which time subsequently submitted ANDAs cannot be granted effective approval. If more than one applicant files a substantially complete ANDA on the same day, each such first applicant will be entitled to share the 180-day exclusivity period, but there will only be one such period, beginning on the date of the first marketing by any of the first applicants.

From time to time, legislation is drafted and introduced in Congress that could significantly change the statutory provisions governing the approval, manufacturing and marketing of drug products. In addition, FDA regulations and guidance are often revised or reinterpreted by the agency or the courts in ways that may significantly affect TorreyPines' business and products candidates. It is impossible to predict whether legislative changes will be enacted, or FDA regulations, guidance or interpretations changed, or what the impact of such changes, if any, may be.

Foreign Regulation of New Drug Compounds

Approval of a product by comparable regulatory authorities may be necessary in foreign countries prior to the commencement of marketing of the product in those countries, whether or not FDA approval has been obtained. In general, each country has its own procedures and requirements, many of which are time consuming, expensive, and their approval procedures vary and can involve requirements for additional testing. Also, the time required may differ from that required for FDA approval. Thus, there can be substantial delays in obtaining required approvals from foreign regulatory authorities after the relevant applications are filed.

In Europe, marketing authorizations may be granted at a centralized level, a decentralized level or a national level. The centralized procedure provides a single marketing authorization valid in all European Union member states, and is mandatory for the approval of most medicinal products, including certain biotechnology products. The decentralized procedure allows an applicant to seek market authorizations in several designated member states at once, and a national market authorization provides an authorization valid in only one member state. All medicinal products that are not subject

to the centralized procedure and which have received at least one marketing authorization in another member state may receive additional marketing authorizations from other member states through a mutual recognition procedure.

Hazardous Materials

TorreyPines' research and development processes involve the controlled use of hazardous materials, chemicals and radioactive materials and the production of waste products. TorreyPines is subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of hazardous materials and waste products. TorreyPines does not expect the cost of complying with these laws and regulations to be material.

Scientific Advisors

TorreyPines' seeks advice from a number of leading scientists, physicians, and former FDA executives including Paul Leber, former Director of the Division of Neuropharmacology and Cynthia McCormick, former Director, Division of Anesthetic, Critical Care and Addictive Products, on scientific and medical matters. On a regular basis, TorreyPines convenes meetings of its scientific advisory board to assess:

- research and development programs;
- design and implementation of its clinical programs;
- patent and publication strategies;
- market opportunities from a clinical perspective;
- new technologies relevant to its research and development programs; and
- specific scientific and technical issues relevant to its business.

Members of TorreyPines' current scientific advisory board are:

Name	Institutional Affiliation
Don Cleveland, Ph.D.	University of California San Diego
James Gusella, Ph.D.	Harvard Medical School
Michael Harpold, Ph.D.	Integration Biosciences, Inc.
David Holtzman, M.D.	Washington University
Sangram Sisodia, Ph.D.	The University of Chicago
Rudolph Tanzi, Ph.D.	Harvard Medical School

Employees

As of June 30, 2006, TorreyPines had 44