

DISCOVERY PARTNERS INTERNATIONAL INC

Form S-4/A

August 07, 2006

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As filed with the Securities and Exchange Commission on August 7, 2006

Registration No. 333-134438

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Amendment No. 2 to
FORM S-4
REGISTRATION STATEMENT

Under

The Securities Act of 1933

DISCOVERY PARTNERS INTERNATIONAL, INC.

(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

8731
(Primary Standard Industrial
Classification Code Number)
9640 Towne Centre Drive

33-0655706
(I.R.S. Employer
Identification Number)

San Diego, California 92121

(858) 455-8600

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

Michael C. Venuti, Ph.D.

Acting Chief Executive Officer

Discovery Partners International, Inc.

9640 Towne Centre Drive

San Diego, California 92121

Tel: (858) 455-8600

Fax: (858) 546-3081

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

L. Kay Chandler, Esq.	Copies to: Steven H. Holtzman	Steven D. Singer, Esq.
Matthew T. Browne, Esq.	Chief Executive Officer	Michael J. LaCascia, Esq.
Cooley Godward LLP	Infinity Pharmaceuticals, Inc.	Wilmer Cutler Pickering Hale and Dorr LLP
4401 Eastgate Mall	780 Memorial Drive	60 State Street
San Diego, CA 92121	Cambridge, MA 02139	Boston, MA 02109
Tel: (858) 550-6000	Tel: (617) 453-1000	Tel: (617) 526-6000
Fax: (858) 550-6420	Fax: (617) 453-1001	Fax: (617) 526-5000

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. "

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. "

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. "

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.

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The information in this joint proxy statement/prospectus is not complete and may be changed. Discovery Partners 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 7, 2006

SPECIAL MEETINGS OF STOCKHOLDERS

YOUR VOTE IS VERY IMPORTANT

To the Stockholders of Discovery Partners International, Inc. and Infinity Pharmaceuticals, Inc.:

Discovery Partners International, Inc., which we refer to as Discovery Partners, and Infinity Pharmaceuticals, Inc., which we refer to as Infinity, have entered into a merger agreement pursuant to which a wholly owned subsidiary of Discovery Partners will merge with and into Infinity such that Infinity will continue as the surviving company. If the merger is consummated, Infinity will become a wholly owned subsidiary of Discovery Partners and outstanding shares of Infinity common stock and Infinity preferred stock will automatically be converted into the right to receive shares of Discovery Partners common stock. Each outstanding option to purchase shares of Infinity common stock and each outstanding warrant to purchase shares of Infinity preferred stock that is not exercised prior to the consummation of the merger will be assumed by Discovery Partners at the effective time of the merger and will become an option or warrant, as applicable, to purchase shares of Discovery Partners common stock. The shares of Discovery Partners common stock that Infinity securityholders will be entitled to receive pursuant to the merger are expected to represent approximately 69% of the fully-diluted shares of the combined company immediately following the consummation of the merger. The actual number of shares of Discovery Partners common stock that Infinity securityholders will be entitled to receive pursuant to the merger is subject to upward or downward adjustment based on Discovery Partners' net cash balance, as calculated pursuant to the merger agreement, at the closing of the merger.

Shares of Discovery Partners common stock are currently listed on the NASDAQ Global Market under the symbol DPPI. After completion of the merger, Discovery Partners expects to be renamed Infinity Pharmaceuticals, Inc. and expects to trade on the NASDAQ Global Market under the symbol INFI. On [], 2006, the last trading day before the date of this joint proxy statement/prospectus, the closing sale price of Discovery Partners common stock was \$[] per share.

Discovery Partners and Infinity are each holding a special meeting of stockholders in order to obtain the stockholder approvals necessary to complete the merger. At the Discovery Partners special meeting, which will be held at 1:00 p.m., local time, on Tuesday, September 12, 2006 at the offices of Cooley Godward LLP, 4401 Eastgate Mall, San Diego, California 92121, unless postponed or adjourned to a later date, Discovery Partners will ask its stockholders to, among other things, approve the issuance of Discovery Partners common stock pursuant to the merger agreement and approve an amendment to Discovery Partners' certificate of incorporation effecting a reverse stock split of Discovery Partners common stock, which is referred to herein as the reverse stock split. Upon the effectiveness of the amendment to Discovery Partners' certificate of incorporation effecting the reverse stock split, referred to as the split effective time, the issued shares of Discovery Partners common stock immediately prior to the split effective time will be reclassified into a smaller number of shares such that a Discovery Partners stockholder will own one new share of Discovery Partners common stock for each 2 to 6 shares of issued common stock held by that stockholder immediately prior to the split effective time. The exact split ratio within the 2:1 to 6:1 range will be determined by the Discovery Partners board of directors prior to the split effective time and will be publicly announced by Discovery Partners. At the Infinity special meeting, which will be held at 1:00 p.m., local time, on Tuesday, September 12, 2006 at the offices of Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston, Massachusetts 02109, unless postponed or adjourned to a later date, Infinity will ask its stockholders to, among other things, adopt the merger agreement.

After careful consideration, the Discovery Partners and Infinity boards of directors have approved the merger agreement and the respective proposals described in the accompanying joint proxy statement/prospectus, and each of the Discovery Partners and Infinity boards of directors has determined that it is advisable to enter into the merger. Each of the board of directors of Discovery Partners and Infinity unanimously

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recommends that its respective stockholders vote FOR the respective proposals described in the accompanying joint proxy statement/prospectus.

More information about Discovery Partners, Infinity and the proposed transaction is contained in this joint proxy statement/prospectus.

Discovery Partners and Infinity urge you to read this 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.

Discovery Partners and Infinity are very excited about the opportunities the merger brings to both Discovery Partners and Infinity stockholders, and we thank you for your consideration and continued support.

Michael Venuti

Acting Chief Executive Officer

DISCOVERY PARTNERS INTERNATIONAL, 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.

Steven Holtzman

Chief Executive Officer

INFINITY PHARMACEUTICALS, INC.

This joint proxy statement/prospectus is dated [], 2006, and is first being mailed to Discovery Partners and Infinity stockholders on or about [], 2006.

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Discovery Partners International, Inc.

9640 Towne Centre Drive

San Diego, California 92121

(858) 455-8600

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

TO BE HELD ON SEPTEMBER 12, 2006

Dear Stockholders of Discovery Partners:

On behalf of the board of directors of Discovery Partners International, Inc., a Delaware corporation, we are pleased to deliver this joint proxy statement/prospectus for the proposed merger between Discovery Partners and Infinity Pharmaceuticals, Inc., a Delaware corporation, pursuant to which a wholly owned subsidiary of Discovery Partners will merge with and into Infinity, which will survive as a wholly owned subsidiary of Discovery Partners. A special meeting of stockholders of Discovery Partners will be held on September 12, 2006 at 1:00 p.m., local time, at the offices of Cooley Godward LLP, 4401 Eastgate Mall, San Diego, California 92121, for the following purposes:

1. To consider and vote upon a proposal to approve the issuance of Discovery Partners common stock pursuant to the Agreement and Plan of Merger and Reorganization, dated as of April 11, 2006, by and among Discovery Partners, Darwin Corp., a wholly owned subsidiary of Discovery Partners, and Infinity Pharmaceuticals, Inc., a copy of which is attached as *Annex A* to the accompanying joint proxy statement/prospectus.
2. To approve an amendment to Discovery Partners certificate of incorporation effecting the reverse stock split, as described in the accompanying joint proxy statement/prospectus.
3. To approve an amendment to Discovery Partners certificate of incorporation to change the name of Discovery Partners International, Inc. to Infinity Pharmaceuticals, Inc.
4. To approve an amendment to Discovery Partners bylaws to increase the maximum number of directors that may constitute the entire board of directors of Discovery Partners from 10 directors to 12 directors, as described in the accompanying joint proxy statement/prospectus.
5. To approve an amendment to the Discovery Partners 2000 Stock Incentive Plan increasing the number of shares authorized for issuance thereunder, effective as of immediately following the effective time of the closing of the merger, and amending the provisions thereof regarding the number of shares by which the share reserve automatically increases each year, the maximum number of shares one person may receive per calendar year under the plan and the purchase price, if any, to be paid by a recipient for common stock under the plan, as described in the accompanying joint proxy statement/prospectus.
6. To consider and vote upon an adjournment of the Discovery Partners special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Discovery Partners Proposal Nos. 1 and 2.
7. To transact such other business as may properly come before the Discovery Partners special meeting or any adjournment or postponement thereof.

The board of directors of Discovery Partners has fixed August 1, 2006 as the record date for the determination of stockholders entitled to notice of, and to vote at, the Discovery Partners special meeting and any adjournment or postponement thereof. Only holders of record of shares of Discovery Partners common stock at the close of business on the record date are entitled to notice of, and to vote at, the Discovery Partners special meeting. At the close of business on the record date, Discovery Partners had 26,148,252 shares of common stock outstanding and entitled to vote.

Your vote is important. The affirmative vote of holders of a majority of the Discovery Partners common stock having voting power present in person or represented by proxy at the Discovery Partners special meeting is required for approval of Discovery Partners Proposal Nos. 1, 5 and 6 above. The affirmative vote of holders of a majority of the Discovery Partners common stock having voting

power outstanding on the record date for the Discovery Partners special meeting is required for approval of Discovery Partners Proposal Nos. 2 and 3. The affirmative vote of holders of 66 ²/₃% of the Discovery Partners common stock having voting power outstanding on the record date for the Discovery Partners special meeting is required for approval of Discovery Partners Proposal No. 4.

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Even if you plan to attend the Discovery Partners special meeting in person, Discovery Partners requests that you sign and return the enclosed proxy and thus ensure that your shares will be represented at the Discovery Partners special meeting if you are unable to attend. If you sign, date and mail your proxy card without indicating how you wish to vote, your proxy will be counted as a vote in favor of Discovery Partners Proposal Nos. 1 through 6. If you fail to return your proxy card, the effect will be that your shares will not be counted for purposes of determining whether a quorum is present at the Discovery Partners special meeting and will count as a vote against Discovery Partners Proposal Nos. 2, 3 and 4. If you do attend the Discovery Partners special meeting and wish to vote in person, you may withdraw your proxy and vote in person.

By Order of Discovery Partners Board of Directors,

Michael Venuti

Acting Chief Executive Officer

San Diego, California

[], 2006

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

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INFINITY PHARMACEUTICALS, INC.

780 Memorial Drive

Cambridge, MA 02139

(617) 453-1000

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

TO BE HELD ON SEPTEMBER 12, 2006

To the Stockholders of Infinity Pharmaceuticals, Inc.:

A special meeting of stockholders of Infinity Pharmaceuticals, Inc. will be held at 1:00 p.m., local time, on Tuesday, September 12, 2006 at the offices of Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston, Massachusetts 02109, 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 April 11, 2006, by and among Discovery Partners International, Inc., Darwin Corp., a wholly owned subsidiary of Discovery Partners, and Infinity, a copy of which is attached as *Annex A* to the accompanying joint proxy statement/prospectus.
2. To approve a proposal to adjourn the Infinity special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the adoption of the merger agreement.
3. To transact such other business as may properly be brought before the Infinity special meeting and any adjournment or postponement thereof.

The Infinity board of directors, acting through its meeting committee, has fixed Friday, July 28, 2006 as the record date for the determination of stockholders entitled to notice of, and to vote at, the Infinity special meeting and any adjournment or postponement thereof. Only holders of record of shares of Infinity common stock and holders of record of shares of Infinity preferred stock at the close of business on the record date are entitled to notice of, and to vote at, the Infinity special meeting. At the close of business on the record date, Infinity had (a) 12,509,444 shares of common stock outstanding and entitled to vote and (b) 39,719,447 shares of preferred stock outstanding and entitled to vote, including 8,134,999 shares of Series A preferred stock outstanding and entitled to vote, 19,473,336 shares of Series B preferred stock outstanding and entitled to vote, 11,111,112 shares of Series C preferred stock outstanding and entitled to vote and 1,000,000 shares of Series D preferred stock outstanding and entitled to vote.

The Infinity board of directors has reviewed and considered the terms and conditions of the proposed merger. Based on its review, the Infinity 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, Infinity and its stockholders. **Accordingly, the Infinity board of directors unanimously recommends that you vote FOR the adoption of the merger agreement. In addition, the Infinity board of directors unanimously recommends that you vote FOR the adjournment of the Infinity special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the adoption of the merger agreement.**

Infinity cannot complete the merger unless the merger agreement is adopted by the affirmative vote of the holders of (a) a majority of the shares of Infinity common stock and Infinity preferred stock outstanding on the record date and entitled to vote at the Infinity special meeting, voting together as a single class and on an as-converted basis, and (b) a majority of the shares of Infinity preferred stock outstanding on the record date and entitled to vote at the Infinity special meeting, voting separately 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, which is referred to herein as the DGCL, holders of Infinity's 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

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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 accompanying joint proxy statement/prospectus. See The Merger Appraisal Rights beginning on page 92 of the accompanying joint proxy statement/prospectus.

Whether or not you plan to attend the Infinity 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 Infinity 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 Infinity special meeting. Executed proxies with no instructions indicated thereon will be voted FOR the adoption of the merger agreement and FOR the adjournment of the Infinity special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the adoption of the merger agreement.

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

By Order of Infinity's Board of Directors,

Steven Holtzman

Chief Executive Officer

Cambridge, Massachusetts

[], 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 do not give effect to the reverse stock split described in Discovery Partners Proposal No. 2.

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

Q: What is the merger?

A: Discovery Partners and Infinity have entered into an Agreement and Plan of Merger and Reorganization, dated as of April 11, 2006, which is referred to in this joint proxy statement/prospectus as the merger agreement, that contains the terms and conditions of the proposed business combination of Discovery Partners and Infinity. Under the merger agreement, Infinity and Darwin Corp., a wholly owned subsidiary of Discovery Partners, which is referred to in this joint proxy statement/prospectus as the merger sub, will merge, with Infinity surviving as a wholly owned subsidiary of Discovery Partners, which transaction is referred to as the merger.

Q: What will happen to Discovery Partners if, for any reason, the merger with Infinity does not close?

A: If, for any reason, the merger with Infinity does not close, the Discovery Partners board of directors may elect to attempt to complete another strategic transaction like the merger or take the steps necessary to liquidate all of Discovery Partners' remaining assets.

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 Discovery Partners or Infinity as of the applicable record date, and thus you are entitled to vote at such company's special meeting. This document serves as both a joint proxy statement of Discovery Partners and Infinity, used to solicit proxies for the special meetings, and as a prospectus of Discovery Partners, used to offer shares of Discovery Partners common stock in exchange for shares of Infinity common stock and preferred stock and warrants for Infinity preferred stock pursuant to the terms of the merger agreement. This document contains important information about the merger and the special meetings of Discovery Partners and Infinity, and you should read it carefully.

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

A: Discovery Partners and Infinity anticipate that the consummation of the merger will occur sometime in the third quarter of 2006, but cannot predict the exact timing. For more information, please see the section entitled "The Merger Agreement - Conditions to the Completion of the Merger" on page 98 of this joint proxy statement/prospectus.

Q: What do I need to do now?

A: Discovery Partners and Infinity urge you to read this joint proxy statement/prospectus carefully, including its annexes, and to consider how the merger affects you.

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If you are a Discovery Partners 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.

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If you are an Infinity 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 special meeting of Discovery Partners stockholders or the special meeting of Infinity stockholders, as applicable.

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

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

Q: May I vote in person?

A: If you are a stockholder of Discovery Partners and your shares of Discovery Partners common stock are registered directly in your name with Discovery Partners transfer agent, you are considered, with respect to those shares, the stockholder of record, and the proxy materials and proxy card are being sent directly to you by Discovery Partners. If you are a Discovery Partners stockholder of record, you may attend the special meeting of Discovery Partners stockholders to be held on September 12, 2006 and vote your shares in person, rather than signing and returning your proxy.

If you are a stockholder of Infinity and your shares of Infinity capital stock are registered directly in your name, you are considered, with respect to those shares, the stockholder of record, and the proxy materials and proxy card are being sent directly to you by Infinity. If you are an Infinity stockholder of record, you may attend the special meeting of Infinity stockholders to be held on September 12, 2006 and vote your shares in person, rather than signing and returning your proxy card.

If your shares of Discovery Partners 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 together with a voting instruction card. As the beneficial owner, you are also invited to attend the special meeting of Discovery Partners stockholders. Since a beneficial owner is not the stockholder of record, you may not vote these shares in person at the Discovery Partners special meeting unless you obtain a legal proxy from the broker, trustee or nominee that holds your shares, giving you the right to vote the shares at the meeting.

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

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

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

A: Discovery Partners stockholders of record, other than those Discovery Partners stockholders who have executed a voting agreement and irrevocable proxy, may change their vote at any time before their proxy is voted at the Discovery Partners special meeting. Discovery Partners stockholders of record, other than Discovery Partners stockholders who have executed a voting agreement and irrevocable proxy, can do this in one of three ways. First, a stockholder of record of Discovery Partners can send a written notice stating that it would like to revoke its proxy. Second, a stockholder of record of Discovery Partners can submit new proxy instructions either on a new proxy card, by

telephone or via the Internet. Third, a stockholder of

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record of Discovery Partners can attend the Discovery Partners special meeting and vote in person. Attendance alone will not revoke a proxy. If a stockholder of record of Discovery Partners has instructed a broker to vote its shares of Discovery Partners common stock, the stockholder must follow directions received from its broker to change those instructions.

Infinity stockholders of record, other than those Infinity stockholders who have executed a voting agreement and irrevocable proxy, may change their vote at any time before their proxy is voted at the Infinity special meeting. Infinity stockholders of record, other than those who have executed a voting agreement and irrevocable proxy, may revoke their proxies at any time prior to use by delivering to the Secretary of Infinity a signed notice of revocation or a later-dated signed proxy, or by attending the Infinity special meeting and voting in person. Attendance at the Infinity 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 an Infinity stockholder, after the merger is consummated, you will receive written instructions from the exchange agent for exchanging your certificates representing shares of Infinity capital stock for certificates representing shares of Discovery Partners common stock. You will also receive a cash payment for any fractional share. If Discovery Partners Proposal No. 2 is approved and effected, Discovery Partners stockholders will also exchange their stock certificates and will receive written instructions from Discovery Partners transfer agent for exchanging their shares of Discovery Partners common stock.

Q: Who is paying for this proxy solicitation?

A: Discovery Partners and Infinity will share equally the cost of soliciting proxies, including the printing, mailing and filing of this joint proxy statement/prospectus, the proxy card and any additional information furnished to stockholders. Discovery Partners has engaged Georgeson Shareholder Communications Inc., a proxy solicitation firm, to solicit proxies from Discovery Partners stockholders. Arrangements will also be made with brokerage firms and other custodians, nominees and fiduciaries who are record holders of Discovery Partners common stock for the forwarding of solicitation materials to the beneficial owners of Discovery Partners common stock. Discovery Partners 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 a Discovery Partners 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 Shareholder Communications Inc.
17 State Street, 10th Floor
New York, NY 10004
(866) 767-8867

Discovery Partners International, Inc.
9640 Towne Centre Drive
San Diego, California 92121
(858) 455-8600
Attn: Investor Relations

If you are an Infinity 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:

Infinity Pharmaceuticals, Inc.

780 Memorial Drive

Cambridge, MA 02139

(617) 453-1000

Attn: Investor Relations

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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 special meetings, you should read this entire joint proxy statement/prospectus carefully, including the merger agreement, attached as Annex A, the opinion of Molecular Securities, attached as Annex B, and the other documents to which you are referred herein. See "Where You Can Find More Information" on page 224 of this joint proxy statement/prospectus. Page references are included in parentheses to direct you to a more detailed description of the topics presented in this summary.

The Companies

Discovery Partners International, Inc.

9640 Towne Centre Drive,

San Diego, California 92121

(858) 455-8600

Discovery Partners has entered into a merger agreement with Infinity pursuant to which Infinity will merge with and into a wholly owned subsidiary of Discovery Partners, with Infinity as the surviving corporation, becoming a wholly owned subsidiary of Discovery Partners. Following execution of the merger agreement, Discovery Partners solicited bids from potential purchasers for its operating assets, which Discovery Partners was seeking to sell or otherwise dispose of in one or more strategic transactions. In connection with that process, Discovery Partners ultimately determined to enter into exclusive negotiations with Galapagos NV, a Belgian corporation, which is referred to in this joint proxy statement/prospectus as Galapagos, based on Galapagos' willingness to acquire all of Discovery Partners' material operating assets and assume all of its related liabilities, its interest in consummating its purchase of Discovery Partners' operating assets quickly, its existing cash resources, and its proposed purchase price. On July 5, 2006, Discovery Partners completed the sale of all of the stock of Discovery Partners' operating subsidiaries and all of its material operating assets, including Discovery Partners' material intellectual property, information technology infrastructure, financial/accounting infrastructure, office furniture and other associated equipment for \$5.4 million in cash, subject to a purchase price adjustment, to Galapagos and Biofocus Inc., a wholly owned subsidiary of Galapagos, which is referred to in this joint proxy statement/prospectus as Biofocus. Discovery Partners' remaining assets following the sale consist primarily of its cash, cash equivalents and short-term investments, its listing on the NASDAQ Global Market and the merger agreement with Infinity. In addition, Discovery Partners' and its subsidiaries' employees became employees of Galapagos and Biofocus, except for approximately 16 Discovery Partners' general and administrative personnel.

Infinity Pharmaceuticals, Inc.

780 Memorial Drive

Cambridge, MA 02139

(617) 453-1000

Infinity's mission is to discover, develop and deliver to patients first-in-class or best-in-class medicines for the treatment of cancer and related conditions. A first-in-class drug refers to the first approved or marketed drug within a class of drug candidates that operate through a particular target or molecular mechanism in the body to affect a specific disease. A best-in-class drug refers to the drug, among all drugs within a class of drugs which operate through a particular target or molecular mechanism in the body to affect a particular disease, that is superior to all other such drugs in the class by virtue of its superior efficacy, superior safety, ease of administration or some combination of the foregoing. Infinity has built a pipeline of innovative product candidates for multiple cancer indications, all of which represent proprietary applications of Infinity's expertise

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in small molecule drug technologies. All of Infinity's product candidates were discovered in-house by its scientists. Infinity believes that its proprietary small molecule technologies, team of highly experienced management and scientists, and its corporate culture form the basis of its potential long-term competitive advantage in seeking to deliver first-in-class and best-in-class medicines. Infinity's lead product candidate is in two Phase I clinical trials and it is seeking to initiate clinical trials of a product candidate in its second most advanced program in 2007. Phase I means an investigational new drug application, or IND, has been filed with the U.S. Food and Drug Administration, or FDA, and that the product candidate is in clinical trials to evaluate its safety and tolerability.

Summary of the Merger (see page 55)

If the merger is completed, Infinity and merger sub will merge, with Infinity surviving as a wholly owned subsidiary of Discovery Partners. The number of shares of Discovery Partners common stock that Infinity securityholders will be entitled to receive pursuant to the merger are expected to represent approximately 69% of the fully-diluted shares of the combined company immediately following the consummation of the merger. This percentage assumes:

the exercise of all outstanding Infinity options and warrants,

the vesting of shares of Discovery Partners restricted common stock and the exercise of Discovery Partners options exercisable on or before June 15, 2006 with an exercise price equal to or less than \$6.00 per share, calculated using the treasury method,

that the amount of Infinity options and warrants does not change between the date hereof and the closing of the merger, and

that Discovery Partners' net cash balance, as calculated pursuant to the merger agreement, at the closing of the merger is greater than or equal to \$70 million and less than or equal to \$75 million.

The actual number of shares of Discovery Partners' common stock that Infinity securityholders will be entitled to receive pursuant to the merger will be adjusted:

upward, if Discovery Partners' net cash balance at closing is below \$70 million; and

downward, if Discovery Partners' net cash balance at closing is above \$75 million.

After completion of the merger, assuming approval of Discovery Partners Proposal No. 3, Discovery Partners will be renamed Infinity Pharmaceuticals, Inc.

Reasons for the Merger (see page 63)

Pipeline. The product candidate pipeline for the combined company is composed of product candidates in various stages of development, including one product candidate in two Phase I clinical trials, one program in preclinical studies for which Infinity is seeking to initiate clinical trials in 2007 and a research program partnered with a major pharmaceutical company. Preclinical development means that the product candidate is undergoing studies in advance of the filing of an IND with the FDA to commence clinical trials in humans, including toxicology studies performed under good laboratory practices suitable for inclusion in an IND filing.

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Markets. The markets to be addressed by the clinical stage and preclinical product candidates of the combined company represent sizable and underserved or unmet medical needs. The product candidates may provide significant medical benefits for patients and returns for investors.

Financial Resources. The financial resources of the combined company are expected to allow it to focus on execution with respect to its product candidate portfolio.

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Management Team. It is expected that the combined company will be led by experienced senior management from Infinity and a board of directors with representation from each of Infinity and Discovery Partners.

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

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

the conclusion of the Discovery Partners board of directors that the Discovery Partners business was declining and unlikely to create enhanced stockholder value; and

the opportunity for Discovery Partners stockholders to participate in the long-term value of Infinity's product candidate development programs as a result of the merger.

In addition, the board of directors of Infinity considered, among other things, the following:

the fact that Discovery Partners' available cash, together with Infinity's other cash resources, are anticipated to meet Infinity's projected operating requirements through 2007 and to enable Infinity to reach its projected near-term product development milestones, and that, with Discovery Partners' cash, Infinity would have greater flexibility with respect to its options for raising additional funds, whether through private or public equity offerings, partnerships with pharmaceutical companies, project financing, debt financing or other arrangements;

the relative certainty of amount (and attendant dilution to existing Infinity securityholders) and the timing of access to capital through the merger with Discovery Partners compared to other financing options considered, particularly an initial public offering; 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.

Opinion of Discovery Partners' Financial Advisor (see page 68)

In connection with the merger, the Discovery Partners board of directors received a written opinion of Molecular Securities, Discovery Partners' financial advisor, as to the fairness, from a financial point of view, of the merger consideration to be paid by Discovery Partners pursuant to the merger agreement as of April 11, 2006. The full text of the Molecular Securities opinion, dated April 11, 2006, is attached to this joint proxy statement/prospectus as *Annex B*. You are encouraged to read this opinion carefully and in its entirety for a description of the assumptions made, procedures followed, matters considered and limitations on the review undertaken. **Molecular Securities delivered its opinion to the Discovery Partners board of directors in connection with the Discovery Partners board's review of the proposed transaction, and the opinion addresses only the fairness from a financial point of view of the merger consideration to be paid by Discovery Partners pursuant to the merger agreement as of April 11, 2006. The opinion does not address any other aspect of the merger and does not constitute any recommendation to any stockholder as to how any stockholder should vote at the Discovery Partners special meeting.**

Pursuant to the engagement letter between Discovery Partners and Molecular Securities, Molecular Securities was paid an initial fee of \$150,000 following the execution of the engagement letter. Following the execution of the merger agreement, an additional fee of approximately \$800,000, which is equal to 25% of the transaction fee measured as of the date of the merger agreement plus certain expenses, was paid to Molecular Securities. Pursuant to the terms of the engagement letter, Molecular Securities would be entitled to an additional

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fee that is contingent upon the closing of the merger that would equal approximately \$2.65 million plus certain expenses, which represents the transaction fee (as of June 29, 2006) payable upon the closing of \$3.6 million plus certain expenses less the approximately \$950,000 that Discovery Partners already paid Molecular Securities.

Overview of the Merger Agreement

Merger Consideration and Adjustment (see page 95)

The number of shares of Discovery Partners common stock that Infinity securityholders will be entitled to receive pursuant to the merger are expected to represent approximately 69% of the fully-diluted shares of the combined company immediately following the consummation of the merger, as described in *Summary of the Merger* above.

The actual number of shares of Discovery Partners common stock that Infinity securityholders will be entitled to receive pursuant to the merger is subject to upward or downward adjustment based on Discovery Partners' net cash balance at the closing of the merger. For a more detailed discussion of the different exchange ratios at different net cash balances of Discovery Partners at the closing of the merger for the different classes, series and tranches of Infinity capital stock, see *The Merger Agreement Merger Consideration and Adjustment* on page 95 of this joint proxy statement/prospectus. Discovery Partners' net cash balance at the closing of the merger 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 the closing and determined in a manner substantially consistent with the manner in which each such item was determined for Discovery Partners' then most recent consolidated balance sheets filed with the SEC, plus the contingent receivable due to Discovery Partners under Discovery Partners' agreement with the NIH, minus Discovery Partners' 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, unpaid taxes and payments to its advisors in connection with the merger. The items that will constitute Discovery Partners' net cash balance at the closing of the merger are subject to many factors, many of which are outside of Discovery Partners' control.

Assuming that Discovery Partners' net cash balance, as calculated pursuant to the merger agreement, is greater than or equal to \$70 million and less than or equal to \$75 million at the closing of the merger, the exchange ratios for the different classes, series and tranches of Infinity capital stock will be as follows, subject to adjustment to account for the reverse stock split: (i) each share of Infinity common stock will entitle the holder to receive 0.95118 shares of Discovery Partners common stock; (ii) each share of Infinity Series A preferred stock will entitle the holder to receive 0.84509 shares of Discovery Partners common stock; (iii) each share of Infinity Series B preferred stock held by Prospect Ventures Partners and Venrock Associates and their affiliates will entitle the holder to receive 1.07472 shares of Discovery Partners common stock; (iv) each share of Infinity Series B preferred stock held by stockholders other than Prospect Ventures Partners and Venrock Associates and their affiliates will entitle the holder to receive 1.20900 shares of Discovery Partners common stock; (v) each share of Infinity Series C preferred stock will entitle the holder to receive 1.12126 shares of Discovery Partners common stock; and (vi) each share of Infinity Series D preferred stock will entitle the holder to receive 1.14607 shares of Discovery Partners common stock. Infinity stockholders are encouraged to obtain current market quotations of Discovery Partners common stock.

Conditions to Completion of the Merger (see page 98)

To consummate the merger, Discovery Partners stockholders must approve (a) the issuance of shares of Discovery Partners common stock pursuant to the merger, which requires the affirmative vote of the holders of a majority of the Discovery Partners common stock having voting power present in person or by proxy at the Discovery Partners special meeting, and (b) the amendment to Discovery Partners' certificate of incorporation effecting a reverse stock split of Discovery Partners common stock, at a ratio within the range of 2:1 to 6:1, as

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described below, which requires the affirmative vote of holders of a majority of the outstanding common stock on the Discovery Partners record date for the Discovery Partners special meeting. Upon the effectiveness of the amendment to Discovery Partners certificate of incorporation effecting the reverse stock split, referred to as the split effective time, the issued shares of Discovery Partners common stock immediately prior to the split effective time will be reclassified into a smaller number of shares such that a Discovery Partners stockholder will own one new share of Discovery Partners common stock for each 2 to 6 shares of issued common stock held by that stockholder immediately prior to the split effective time. The exact split ratio within the 2:1 to 6:1 range will be determined by the Discovery Partners board of directors prior to the split effective time and will be publicly announced by Discovery Partners. As the listing standards of the NASDAQ Global Market will require Discovery Partners to have, among other things, a \$5.00 per share minimum bid price, the reverse stock split may be necessary in order to consummate the merger. In addition, Infinity stockholders must adopt the merger agreement, which requires the affirmative vote of the holders of (a) a majority of the shares of Infinity common stock and Infinity preferred stock outstanding on the record date for the Infinity special meeting and entitled to vote thereon, voting together as a single class and on an as-converted basis, and (b) a majority of the shares of Infinity preferred stock outstanding on the record date for the Infinity special meeting and entitled to vote thereon, voting separately 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 Discovery Partners net cash, as calculated pursuant to merger agreement, be at least \$60 million at the closing of the merger.

No Solicitation (see page 99)

Each of Infinity and Discovery Partners agreed that, with certain exceptions, Infinity and Discovery Partners and any of their respective subsidiaries will not, nor will either party authorize or permit any of the officers, directors, investment bankers, attorneys or accountants retained by it or any of its subsidiaries, 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 or inquiry, indication of interest or request for information that could reasonably be expected to lead to an acquisition proposal;

engage in discussions or negotiations with respect to any acquisition proposal or inquiry, indication of interest or request for information that could reasonably be expected to lead to an acquisition proposal;

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.

Termination of the Merger Agreement (see page 104)

Either Discovery Partners or Infinity can terminate the merger agreement under certain circumstances, which would prevent the merger from being consummated.

Termination Fee (see page 106)

If the merger agreement is terminated under certain circumstances, Discovery Partners or Infinity will be required to pay the other party a termination fee of \$6 million.

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Voting Agreements (see page 108)

In connection with the execution of the merger agreement, several Infinity stockholders entered into voting agreements and irrevocable proxies pursuant to which, among other things, each of these stockholders agreed, solely in his, her or its capacity as a stockholder, to vote all of his, her or its shares of Infinity 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 Infinity 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 April 30, 2006, the stockholders of Infinity that entered into voting agreements collectively owned 6,023,553 shares of common stock of Infinity and 23,352,247 shares of preferred stock of Infinity, representing approximately 47.9% of the outstanding capital stock of Infinity and approximately 48.19% of the outstanding preferred stock of Infinity. All of these stockholders are executive officers, directors, or entities controlled by such persons, or 5% stockholders, of Infinity.

In connection with the execution of the merger agreement, several Discovery Partners stockholders entered into voting agreements with Infinity pursuant to which, among other things, each of these stockholders agreed, solely in his, her or its capacity as a stockholder, to vote all of his, her or its shares of Discovery Partners common stock in favor of the approval of the issuance of the shares pursuant to the merger and the approval of the amendment to Discovery Partners certificate of incorporation effecting the reverse stock split, and against any matter that would result in a breach of the merger agreement by Discovery Partners 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 Discovery Partners stockholders that entered into voting agreements are Discovery Partners officers and directors. As of April 30, 2006, these stockholders collectively beneficially owned shares representing approximately 2.5% of the outstanding common stock of Discovery Partners.

Lock-up Agreements (see page 109)

As of April 30, 2006, Discovery Partners has obtained lock-up agreements from certain officers and directors of Infinity and their affiliates. These agreements prohibit the sale, transfer, hedging or similar transactions with respect to Discovery Partners common stock for 180 days following the consummation of the merger, except in limited circumstances; provided however that the restrictions on the sale, transfer, hedging or similar transactions with respect to such shares of Discovery Partners common stock lapse as to 1/26th of such shares on the 7th day after the closing date and as to an additional 1/26th of such shares each week thereafter, until the 180th day after the closing date, at which time the restrictions lapse as to all such shares.

Management Following the Merger (see page 179)

Following the merger, the management team of the combined company is expected to be composed of the management team of Infinity, including the following individuals:

Steven Holtzman

Chairman and Chief Executive Officer

Julian Adams

President and Chief Scientific Officer

Adelene Perkins

Executive Vice President and Chief Business Officer

Jeffrey Tong

Vice President, Corporate and Product Development

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David Grayzel

Vice President, Clinical Development and Medical Affairs

James Wright

Vice President, Pharmaceutical Development

Michael Foley

Vice President, Chemistry

Vito Palombella

Vice President, Biology

The merger agreement provides that, if Discovery Partners Proposal No. 4 is approved by Discovery Partners stockholders, Discovery Partners bylaws will be amended to increase the maximum number of directors that may constitute the entire board of directors of Discovery Partners from 10 directors to 12 directors and the board of directors of Discovery Partners as of the effective time of the merger will be as follows:

Class I: Herm Rosenman, Eric Lander, Franklin Moss and James Tananbaum;

Class II: D. Ronald Daniel, Arnold Levine, Patrick Lee and Michael Venuti; and

Class III: Anthony Evnin, Harry Hixson, Steven Holtzman and Vicki Sato.

If Discovery Partners Proposal No. 4 is not approved by Discovery Partners stockholders, Discovery Partners will fix the maximum number of members of its board of directors at 10 and the board of directors of Discovery Partners as of the effective time of the merger will be as follows:

Class I: Arnold Levine, Herm Rosenman and James Tananbaum;

Class II: D. Ronald Daniel, Patrick Lee and Michael Venuti; and

Class III: Anthony Evnin, Harry Hixson, Steven Holtzman and Vicki Sato.

In either case, Harry Hixson, Michael Venuti and Herm Rosenman will continue in their positions on the board of directors of Discovery Partners and will serve as a Class III, Class II and Class I director, respectively, and Colin Dollery and Alan Lewis will resign as of the effective time of the merger.

Interests of Certain Directors, Officers, Key Employees and Affiliates of Discovery Partners and Infinity (see pages 77 and 81)

In considering the recommendation of the Discovery Partners board of directors with respect to issuing shares of Discovery Partners common stock pursuant to the merger agreement and the other matters to be acted upon by Discovery Partners stockholders at the Discovery Partners special meeting, Discovery Partners stockholders should be aware that certain members of the board of directors and executive officers of Discovery Partners have interests in the merger that may be different from, or in addition to, interests they may have as Discovery Partners stockholders. For example, Discovery Partners executive officers are each a party to change in control agreements with Discovery Partners that may result in cash payments to those officers, totaling approximately \$1.9 million, and the acceleration of stock options to purchase

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approximately 25,000 shares of Discovery Partners common stock and 23,000 shares of restricted stock held by those officers assuming the merger closes and the officers are terminated by the combined company without cause or by the executive officer for good reason, as those terms are defined in the change in control agreements. Discovery Partners has also adopted retention and severance plans for certain of its executive officers and key employees that provide for the payment of cash bonuses and severance amounts, totaling approximately \$750,000, for the achievement of certain milestones if the officers and key employees remain employed with Discovery Partners through December 31, 2006 or are terminated by Discovery Partners, or its successor in a change in control, on or prior to

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December 31, 2006, and the accelerated vesting of 440,250 shares of the officers and key employees restricted stock. In addition, the closing of the merger will result in the acceleration of vesting of stock options to purchase 82,500 shares of Discovery Partners common stock held by Discovery Partners non-employee directors, and certain Discovery Partners directors will continue to serve on the board of directors of the combined company following the consummation of the merger.

As of April 30, 2006, all directors and executive officers of Discovery Partners, together with their affiliates, beneficially owned 3.5% of the shares of Discovery Partners common stock. The affirmative vote of the holders of a majority of the Discovery Partners common stock having voting power present in person or represented by proxy at the Discovery Partners special meeting is required for approval of Discovery Partners Proposal Nos. 1, 5 and 6. The affirmative vote of holders of a majority of the Discovery Partners common stock having voting power outstanding on the record date for the Discovery Partners special meeting is required for approval of Discovery Partners Proposal Nos. 2 and 3. The affirmative vote of holders of 66²/₃% of the Discovery Partners common stock having voting power outstanding on the record date for the Discovery Partners special meeting is required for approval of Discovery Partners Proposal No. 4. Certain Discovery Partners 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 under the caption Agreements Related to the Merger Voting Agreements beginning on page 108 of this joint proxy statement/prospectus.

In considering the recommendation of the Infinity board of directors with respect to adopting the merger agreement, Infinity stockholders should be aware that certain members of the board of directors and executive officers of Infinity have interests in the merger that may be different from, or in addition to, interests they may have as Infinity stockholders. For example, following the consummation of the merger, certain of Infinity s 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 Infinity. In addition, certain of Infinity s directors and all of Infinity s executive officers hold options to purchase shares of Infinity common stock, which options will be assumed by Discovery Partners and become options to purchase shares of Discovery Partners common stock following the consummation of the merger.

As of April 30, 2006, all directors and executive officers of Infinity, together with their affiliates, beneficially owned approximately 38.8% of the shares of Infinity capital stock. The adoption of the merger agreement requires the affirmative vote of the holders of (a) a majority of the shares of Infinity common stock and Infinity preferred stock outstanding on the record date and entitled to vote at the Infinity special meeting, voting together as a single class and on an as-converted basis, and (b) a majority of the shares of Infinity preferred stock outstanding on the record date and entitled to vote at the Infinity special meeting, voting separately as a single class and on an as-converted basis. Certain Infinity 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 under the caption Agreements Related to the Merger Voting Agreements beginning on page 108 of this joint proxy statement/prospectus.

Stock Options and Warrants (see page 84)

Each outstanding option to purchase shares of Infinity common stock that is not exercised prior to the consummation of the merger will be assumed by Discovery Partners at the effective time of the merger and will become an option to purchase shares of Discovery Partners common stock. Each outstanding warrant to purchase shares of Infinity Series A preferred stock and Series B preferred stock that is not exercised prior to the consummation of the merger will be assumed by Discovery Partners at the effective time of the merger and will become a warrant to purchase shares of Discovery Partners common stock. The number of shares of Discovery Partners common stock subject to each assumed option and warrant will be determined by multiplying the number of shares of Infinity common stock or Infinity preferred stock that were subject to each option or warrant, as applicable, prior to the effective time of the merger by an exchange ratio determined pursuant to the

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merger agreement, and rounding that result down to the nearest whole number of shares of Discovery Partners common stock. The per share exercise price for the assumed options and warrants will be determined by dividing the per share exercise price of the Infinity common stock or Infinity preferred stock subject to each option or warrant, as applicable, as in effect immediately prior to the effective time of the merger by the applicable exchange ratio and rounding that result up to the nearest whole cent. Each actual exchange ratio will be determined in accordance with the merger agreement by reference to Discovery Partners' net cash balance, as calculated pursuant to the merger agreement, at the closing of the merger.

Material United States Federal Income Tax Consequences of the Merger (see page 89)

The merger has been structured 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 Discovery Partners and Infinity receive opinions of their respective counsel regarding such qualification. As a result of the merger's qualification as a reorganization, Infinity stockholders will not recognize gain or loss for United States federal income tax purposes upon the exchange of shares of Infinity common stock or preferred stock for shares of Discovery Partners common stock, except with respect to cash received in lieu of fractional shares of Discovery Partners common stock.

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 Discovery Partners and Infinity 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:

If the net cash balance of Discovery Partners at the closing of the merger is below \$70 million, the exchange ratios will be adjusted upward to increase the number of shares that Infinity securityholders will be entitled to receive pursuant to the merger, which would further dilute current Discovery Partners stockholders' ownership in the combined company; if the net cash balance of Discovery Partners at the closing of the merger is below \$60 million, Infinity may elect not to consummate the merger; and, if the net cash balance of Discovery Partners at the closing of the merger is greater than \$75 million, the exchange ratios will be adjusted downward to decrease the number of shares that Infinity securityholders will be entitled to receive pursuant to the merger, which would further dilute current Infinity stockholders' ownership in the combined company.

The exchange ratio is not adjustable based on the market price of Discovery Partners common stock and if the market price of Discovery Partners common stock declines, the value of the shares of Discovery Partners common stock that Infinity securityholders will be entitled to receive pursuant to the merger could be significantly lower.

Some of Discovery Partners' and Infinity's officers and directors have interests in the merger that may be different from yours and may influence them to support the merger without regard to your interests.

Failure to complete the merger may result in Discovery Partners or Infinity paying a termination fee to the other and could harm Discovery Partners' or Infinity's 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, industry-wide changes and other causes, which could result in a decline in the combined company's stock price and reduce the value of the merger to Infinity's securityholders.

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If the combined company does not realize the anticipated benefits from the merger, the market price of the combined company's common stock may decline as a result of the merger.

If the perceived benefits of the merger, including the benefits to the combined company's business and prospects, are not realized after the merger, Discovery Partners and Infinity stockholders may not realize a benefit from the merger commensurate with the ownership dilution they will experience in connection with the merger.

These risks and other risks are discussed in greater detail under the caption "Risk Factors" beginning on page 22 of this joint proxy statement/prospectus. Discovery Partners and Infinity both encourage you to read and consider all of these risks carefully.

Regulatory Approvals (see page 89)

As of the date of this joint proxy statement/prospectus, neither Discovery Partners nor Infinity 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, Discovery Partners must comply with applicable federal and state securities laws and the rules and regulations of the NASDAQ Global Market in connection with the issuance of shares of Discovery Partners common stock pursuant to the merger and the filing of this joint proxy statement/prospectus with the SEC.

NASDAQ Global Market Listing (see page 92)

Discovery Partners has filed an initial listing application with the NASDAQ Global Market pursuant to NASDAQ's reverse merger rules. If such application is accepted, Discovery Partners anticipates that its common stock will be listed on the NASDAQ Global Market following the closing of the merger under the trading symbol INFI.

Anticipated Accounting Treatment (see page 92)

The merger will be treated by Discovery Partners as a reverse merger under the purchase method of accounting in accordance with U.S. generally accepted accounting principles. For accounting purposes, Infinity is considered to be acquiring Discovery Partners in the merger.

Appraisal Rights (see page 92)

Under Delaware law, Infinity stockholders are entitled to appraisal rights in connection with the merger. Holders of Discovery Partners 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 attached to this joint proxy statement/prospectus as *Annex C*, and "The Merger - Appraisal Rights" beginning on page 92 of this joint proxy statement/prospectus.

Comparison of Stockholder Rights (see page 208)

Both Discovery Partners and Infinity are incorporated under the laws of the State of Delaware and, accordingly, the rights of the stockholders of each are currently, and will continue to be, governed by the Delaware General Corporation Law. If the merger is completed, Infinity stockholders will become stockholders of Discovery Partners, and their rights will be governed by the Delaware General Corporation Law, the certificate of incorporation of Discovery Partners and the bylaws of Discovery Partners. The rights of Discovery Partners contained in the certificate of incorporation and bylaws of Discovery Partners differ from the rights of Infinity stockholders under the certificate of incorporation and bylaws of Infinity, as more fully described under the section entitled "Comparison of Rights of Holders of Discovery Partners Stock and Infinity Stock" beginning on page 208 of this joint proxy statement/prospectus.

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Amendment to the Discovery Partners 2000 Stock Incentive Plan (see page 118)

Discovery Partners stockholders are being asked to approve an amendment to the Discovery Partners 2000 Stock Incentive Plan increasing the number of shares authorized for issuance thereunder, effective as of immediately following the effective time of the closing of the merger, and amending the provisions thereof regarding the number of shares by which the share reserve automatically increases each year, the maximum number of shares one person may receive per calendar year under the plan and the purchase price, if any, to be paid by a recipient for common stock under the plan. The affirmative vote of the holders of a majority of the Discovery Partners common stock having voting power present in person or represented by proxy at the Discovery Partners special meeting is required for approval of Discovery Partners Proposal No. 5. See Matters Being Submitted To A Vote Of Discovery Partners Stockholders - Discovery Partners Proposal No. 5: Approval of Amendment to the Discovery Partners 2000 Stock Incentive Plan on page 118 of this joint proxy statement/prospectus for detailed information regarding Discovery Partners Proposal No. 5.

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SELECTED HISTORICAL AND UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL DATA

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

On July 5, 2006, Discovery Partners completed the sale of all of the stock of Discovery Partners' operating subsidiaries and all of its material operating assets, including Discovery Partners' material intellectual property, information technology infrastructure, financial/accounting infrastructure, office furniture and other associated equipment for \$5.4 million in cash, subject to a purchase price adjustment, to Galapagos and Biofocus. Discovery Partners' remaining assets following the sale consist primarily of its cash, cash equivalents and short-term investments, its listing on the NASDAQ Global Market and the merger agreement with Infinity. In addition, Discovery Partners' and its subsidiaries' employees became employees of Galapagos and Biofocus, except for 16 Discovery Partners general and administrative personnel. As a result of the sale transaction, Discovery Partners' historical operating results reported in this joint proxy statement/prospectus are not indicative of future results. Where unaudited pro forma financial information is provided, Discovery Partners will reflect the historical operating results relating to the Discovery Partners' subsidiaries and operating assets sold to Galapagos and Biofocus as discontinued operations.

Table of Contents**Selected Historical Consolidated Financial Data of Discovery Partners**

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 Discovery Partners' U.S. GAAP financial statements, which have been audited by Ernst & Young LLP, independent registered public accounting firm, and are included in this joint proxy statement/prospectus beginning on page F-5. 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 Discovery Partners' U.S. GAAP financial statements, which have been audited by Ernst & Young LLP, independent registered public accounting firm, not included in this joint proxy statement/prospectus. The statement of operations data for the three months ended March 31, 2005 and 2006, as well as the balance sheet data as of March 31, 2006 are derived from Discovery Partners' unaudited U.S. GAAP financial statements included in this joint proxy statement/prospectus beginning on page F-32. The financial data below has been recast to exclude the results of operations and financial positions of Discovery Partners' instrumentation product lines from continuing operations. The financial data should be read in conjunction with Discovery Partners' Management's Discussion and Analysis of Financial Condition and Results of Operations and Discovery Partners' 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.

	2005	Years Ended December 31,				Three Months Ended	
		2004	2003	2002	2001	March 31, 2006	2005
Consolidated Statement of Operations Data:							
Revenues	\$ 34,837	\$ 44,268	\$ 45,209	\$ 36,407	\$ 35,221	\$ 4,339	\$ 6,734
Total operating expenses	25,765	16,925	16,121	67,238	27,837	9,386	6,061
Net income (loss) from continuing operations	(13,721)	3,385	3,278	(61,755)	(11,052)	(9,204)	(3,961)
Net income (loss)	(14,165)	3,903	1,059	(62,113)	(11,148)	(9,039)	(4,548)
Net income (loss) per share for continuing operations, basic and diluted	\$ (0.53)	\$ 0.13	\$ 0.13	\$ (2.54)	\$ (0.46)	\$ (0.35)	\$ (0.16)
Net income (loss) per share, basic and diluted	\$ (0.55)	\$ 0.15	\$ 0.04	\$ (2.55)	\$ (0.46)	\$ (0.35)	\$ (0.18)
Shares used in calculating net income (loss) per share, basic	25,919	25,319	24,344	24,315	24,016	26,112	25,843
Shares used in calculating net income (loss) per share, diluted	25,919	26,272	25,077	24,315	24,016	26,112	25,843

	As of December 31,					As of
	2005	2004	2003	2002	2001	March 31, 2006
Selected Consolidated Balance Sheet Data:						
Cash, cash equivalents and short-term investments	\$ 83,486	\$ 80,019	\$ 72,574	\$ 69,636	\$ 77,265	\$ 80,128
Working capital	85,757	93,368	77,540	75,788	85,659	80,315
Total assets	102,280	115,643	105,194	101,609	162,223	92,771
Long-term obligations, less current portion	528	155	98	411	1,177	864
Total stockholders' equity	95,074	108,407	98,247	96,532	157,042	86,275

Table of Contents**Selected Historical Financial Data of Infinity**

(In thousands, except per share amounts)

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 Infinity's U.S. GAAP financial statements, which have been audited by Ernst & Young LLP, independent registered public accounting firm, and are included in this joint proxy statement/prospectus beginning on page F-50. 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 Infinity's U.S. GAAP financial statements, which have been audited by Ernst & Young LLP, independent registered public accounting firm, not included in this joint proxy statement/prospectus. The statement of operations and cash flow data for the three months ended March 31, 2005 and 2006, as well as the balance sheet data as of March 31, 2006, are derived from Infinity's unaudited U.S. GAAP financial statements included in this joint proxy statement/prospectus beginning on page F-50. The financial data should be read in conjunction with Infinity Management's Discussion and Analysis of Financial Condition and Results of Operations and Infinity's 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 Three Months Ended March 31,	
	2001	2002	2003	2004	2005	(Unaudited) 2005	(Unaudited) 2006
Statement of Operations Data:							
Revenue			\$ 152		\$ 522		\$ 719
Operating expenses:							
Research and development	\$ 1,347	\$ 14,095	24,405	\$ 28,396	31,460	\$ 7,032	9,678
General and administrative	1,722	5,706	7,777	5,290	5,530	1,400	1,973
Restructuring expenses			1,296				
Total costs and expenses	(3,069)	(19,801)	(33,478)	(33,686)	(36,990)	(8,432)	(11,651)
Loss from operations	(3,069)	(19,801)	(33,326)	(33,686)	(36,468)	(8,432)	(10,932)
Interest income (expense), net	145	175	(524)	(402)	99	33	52
Net loss	\$ (2,924)	\$ (19,626)	\$ (33,850)	\$ (34,088)	\$ (36,369)	\$ (8,399)	\$ (10,880)

	As of December 31,					As of March 31,	
	2001	2002	2003	2004	2005	(Unaudited) 2006	
Selected Balance Sheet Data:							
Cash, cash equivalents and available-for-sale securities	\$ 8,715	\$ 31,937	\$ 52,517	\$ 44,548	\$ 10,946	\$ 23,862	
Working capital	8,350	26,825	46,352	36,626	775	11,205	
Total assets	11,248	44,034	67,756	61,966	24,451	37,651	
Long-term debt and capital leases	559	4,032	5,763	4,047	2,041	6,070	
Convertible preferred stock	12,289	55,640	109,642	134,704	134,730	139,730	
Accumulated deficit	(2,924)	(22,550)	(56,400)	(90,488)	(126,857)	(139,737)	
Total stockholders' equity	\$ 9,881	\$ 33,878	\$ 54,458	\$ 45,831	\$ 10,174	\$ 4,848	
Other Data:							
Net cash provided by (used in) operating activities	\$ (2,502)	\$ (14,874)	\$ (30,831)	\$ (29,472)	\$ (27,889)	\$ 4,164	
Net cash provided by (used in) investing activities	(9,031)	(395)	(35,164)	5,586	16,129	(294)	
Net cash provided by (used in) financing activities	\$ 12,470	\$ 46,269	\$ 57,652	\$ 24,925	\$ (3,431)	\$ 8,795	

Table of Contents**Selected Unaudited Pro Forma Condensed Combined Financial Data of Discovery Partners and Infinity**

(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, Infinity is considered to be acquiring Discovery Partners in the merger. Infinity's and Discovery Partners' unaudited pro forma condensed combined balance sheet data assume that the merger took place on March 31, 2006 and combine Infinity's historical balance sheet at March 31, 2006 with Discovery Partners' historical balance sheet at March 31, 2006. Infinity's and Discovery Partners' unaudited pro forma condensed combined balance sheet and statement of operations data assume that the merger and Discovery Partners stock and asset sale transaction with Galapagos and Biofocus took place as of January 1, 2005. The unaudited pro forma condensed combined statement of operations data for the year ended December 31, 2005 combine Infinity's historical statement of operations for the year then ended with Discovery Partners' statement of operations for the year ended December 31, 2005. The unaudited pro forma condensed combined statement of operations data for the three months ended March 31, 2006 combine Infinity's historical statement of operations for the three months then ended with Discovery Partners' historical statement of operations for the three months ended March 31, 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 three months ended March 31, 2006 and for the year ended December 31, 2005 are derived from the unaudited pro forma condensed combined financial information commencing at page 192 and should be read in conjunction with that information. See Unaudited Pro Forma Condensed Combined Financial Statements.

	For the Three Months Ended March 31, 2006	For the Year Ended December 31, 2005
Unaudited Pro Forma Condensed Combined Statement of Operations Data:		
Revenues	\$ 719	\$ 522
Operating expenses:		
Research and development	9,678	31,460
Selling, general and administrative	1,973	5,530
Total operating expenses	11,651	36,990
Interest income, net	912	2,306
Loss from continuing operations	\$ (10,020)	\$ (34,162)

	As of March 31, 2006
Unaudited Pro Forma Condensed Combined Balance Sheet Data:	
Cash, cash equivalents and short-term investments	\$ 110,516
Working capital	87,828
Total assets	125,202
Long-term obligations, less current portion	17,482
Stockholders' equity	81,471

Table of Contents**Comparative Historical and Unaudited Pro Forma Per Share Data**

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

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

You should read the tables below in conjunction with the audited and unaudited financial statements of Discovery Partners commencing at page F-5 of this joint proxy statement/prospectus and audited and unaudited financial statements of Infinity commencing at page F-50 of 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.

DISCOVERY PARTNERS

	Year Ended December 31, 2005	Three Months Ended March 31, 2006
Historical Per Common Share Data:		
Net loss per common share basic and diluted	\$ (0.55)	\$ (0.35)
Book value per share	\$ 3.64	\$ 3.26

INFINITY PHARMACEUTICALS

	Year Ended December 31, 2005	Three Months Ended March 31, 2006
Historical Per Common Share Data:		
Net loss per common share basic and diluted	\$ (0.75)	\$ (0.22)
Book value per share	\$ 0.50	\$ 0.75

INFINITY PHARMACEUTICALS AND DISCOVERY PARTNERS

	Year Ended December 31, 2005	Three Months Ended March 31, 2006
Combined Unaudited Pro Forma Per Share Data:		
Net loss per combined share from continuing operations basic and diluted	\$ (0.46)	\$ (0.13)
Book value per combined share	\$ 1.23	\$ 1.07

	Year Ended December 31, 2005	Three Months Ended March 31, 2006
Equivalent Pro Forma Per Share Data:		
Net loss per combined share from continuing operations basic and diluted	\$ (0.44)	\$ (0.13)
Book value per combined share	\$ 1.18	\$ 1.03

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

Discovery Partners Common Stock

	High	Low
Year Ended December 31, 2004		
First Quarter	\$ 6.50	\$ 5.48
Second Quarter	\$ 6.40	\$ 4.54
Third Quarter	\$ 5.91	\$ 4.08
Fourth Quarter	\$ 5.47	\$ 4.11
Year Ended December 31, 2005		
First Quarter	\$ 4.76	\$ 3.10
Second Quarter	\$ 3.54	\$ 2.79
Third Quarter	\$ 3.50	\$ 2.80
Fourth Quarter	\$ 3.46	\$ 2.24
Year Ending December 31, 2006		
First Quarter	\$ 2.74	\$ 2.34
Second Quarter	\$ 2.84	\$ 2.34
Third Quarter (through July 25, 2006)	\$ 2.82	\$ 2.58

On April 11, 2006, the last trading day prior to announcement of the merger, the closing price of Discovery Partners common stock was \$2.41, for an aggregate value of Discovery Partners of approximately \$64.5 million. Accordingly, if the merger had been consummated on that day, the value attributable to the Infinity capital stock and Infinity's outstanding options and warrants in the aggregate, or to approximately 69% of the fully-diluted shares of the combined company, would have equaled \$147.1 million. This percentage assumes:

the exercise of all outstanding Infinity options and warrants,

the vesting of shares of Discovery Partners restricted common stock and the exercise of Discovery Partners options exercisable on or before June 15, 2006 with an exercise price equal to or less than \$6.00 per share, calculated using the treasury method,

that the amount of Infinity options and warrants does not change between the date hereof and the closing of the merger, and

that Discovery Partners' net cash balance, as calculated pursuant to the merger agreement, at the closing of the merger is greater than or equal to \$70 million and less than or equal to \$75 million.

Because the market price of Discovery Partners common stock is subject to fluctuation, the market value of the shares of Discovery Partners common stock that holders of Infinity capital stock and Infinity's outstanding options and warrants will be entitled to receive in the merger may increase or decrease.

Assuming approval of Discovery Partners Proposal No. 3 and successful application for initial listing with the NASDAQ Global Market following the consummation of the merger, Discovery Partners common stock will continue to be listed on the NASDAQ Global Market, but will trade under the combined company's new name, Infinity Pharmaceuticals, Inc. and the new trading symbol, INFI. Following the consummation of the merger, there will be no market for the former Infinity common stock and preferred stock.

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As of April 30, 2006, Discovery Partners had approximately 102 holders of record of its common stock. As of April 30, 2006, Infinity had approximately 165 holders of record of its common stock and approximately 34 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 Principal Stockholders of Combined Company on page 221 of this joint proxy statement/prospectus.

Dividends

Discovery Partners 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 Discovery Partners' board of directors and will depend upon its financial condition, operating results, capital requirements, deployment of resources and ability to engage in strategic transactions, whether or not the merger is consummated, and such other factors as Discovery Partners' board of directors deems relevant.

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

Table of Contents**RISK FACTORS**

In addition to the other information contained in this joint proxy statement/prospectus, you should carefully consider the material risks described below. Because Discovery Partners completed the sale of all of its material operating assets, Discovery Partners' business immediately following the merger will be the business conducted by Infinity immediately prior to the merger. As a result, the risks described below under "Risks Related to Infinity" are the most significant risks to the combined company if the merger is completed.

Risks Related to the Merger

If the net cash balance of Discovery Partners at the closing of the merger is below \$70 million, the exchange ratios will be adjusted upward to increase the number of shares that Infinity securityholders will be entitled to receive pursuant to the merger, which would further dilute current Discovery Partners stockholders' ownership in the combined company; if the net cash balance of Discovery Partners at the closing of the merger is below \$60 million, Infinity may elect not to consummate the merger; and, if the net cash balance of Discovery Partners at the closing of the merger is greater than \$75 million, the exchange ratios will be adjusted downward to decrease the number of shares that Infinity securityholders will be entitled to receive pursuant to the merger, which would further dilute current Infinity stockholders' ownership in the combined company.

The merger agreement provides that the exchange ratios are subject to upward and downward adjustment based on the net cash balance of Discovery Partners at the closing of the merger. If the net cash balance of Discovery Partners at the closing of the merger is below \$70 million, the merger agreement provides for adjusting the exchange ratios to increase the number of shares of Discovery Partners common stock that Infinity securityholders will be entitled to receive pursuant to the merger, which would further dilute current Discovery Partners stockholders' ownership in the combined company. If the net cash balance of Discovery Partners at the closing of the merger is below \$60 million, Discovery Partners would be unable to satisfy a closing condition for the merger, and Infinity may elect not to consummate the merger. If the net cash balance of Discovery Partners at the closing of the merger is greater than \$75 million, the merger agreement provides for adjusting the exchange ratios to decrease the number of shares of Discovery Partners common stock that Infinity securityholders will be entitled to receive pursuant to the merger, which would further dilute current Infinity stockholders' ownership in the combined company. The items that will constitute Discovery Partners' net cash balance at the closing of the merger are subject to many factors, many of which are outside of Discovery Partners' control. The following table sets forth the number of shares of Discovery Partners common stock that Infinity securityholders would be entitled to receive in the merger, and the approximate percentage ownership of the combined company that Infinity securityholders would be expected to hold immediately following the closing of the merger, assuming net cash balances of Discovery Partners at the closing of the merger of \$80 million, \$74.9 million, \$65 million and \$60 million, respectively.

Assumed Net Cash Balance of Discovery Partners at the Closing of the Merger	Number of Shares of Discovery Partners Common Stock That Infinity Securityholders Would be Entitled to Receive(1)	Approximate Percentage Ownership of Combined Company That Would be Held by Infinity Securityholders(2)
\$80 million	55,304,018	63%
\$74.9 million	61,025,377	69%
\$65 million	68,066,682	77%
\$60 million	73,738,872	84%

- (1) Assumes (a) 12,502,614 shares of Infinity common stock, (b) options to purchase an aggregate of 5,297,826 shares of Infinity common stock, (c) 8,134,999 shares of Infinity Series A preferred stock, (d) warrants to purchase an aggregate of 133,333 shares of Infinity Series A preferred stock, (e) 6,132,897 shares of Infinity Series B preferred stock held by Prospect Venture Partners and Venrock Associates and their respective affiliates, (f) 13,340,439 shares of Infinity Series B preferred stock held by stockholders other than Prospect

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Venture Partners and Venrock Associates and their respective affiliates, (g) warrants to purchase an aggregate of 646,997 shares of Infinity Series B preferred stock, (h) 11,111,112 shares of Infinity Series C preferred stock and (i) 1,000,000 shares of Infinity Series D preferred stock are issued and outstanding as of immediately prior to the closing of the merger, which were the numbers of issued and outstanding shares of Infinity capital stock and options and warrants to purchase shares of Infinity capital stock as of April 30, 2006.

- (2) Assumes as of April 30, 2006 and as of immediately prior to the closing of the merger, (a) 26,436,931 shares of Discovery Partners common stock issued and outstanding, (b) the vesting of 444,250 shares of Discovery Partners restricted common stock and (c) the exercise of 350,757 Discovery Partners options exercisable on or before June 15, 2006 with an exercise price equal to or less than \$6.00 per share, calculated using the treasury method.

For a more detailed discussion of the calculation of Discovery Partners' net cash at the closing of the merger, see "The Merger Agreement - Merger Consideration and Adjustment" on page 95 of this joint proxy statement/prospectus.

The exchange ratio is not adjustable based on the market price of Discovery Partners common stock and if the market price of Discovery Partners common stock declines, the value of the shares of Discovery Partners common stock that Infinity securityholders will be entitled to receive pursuant to the merger could be significantly lower.

The merger agreement has set the exchange ratios for the various classes, series and tranches of Infinity capital stock and such exchange ratios are only adjustable upward or downward depending upon Discovery Partners' net cash balance, as calculated pursuant to the merger agreement, at the closing of the merger, not the market price of Discovery Partners common stock. Accordingly, any changes in the market price of Discovery Partners common stock will not affect the number of shares that Infinity securityholders will be entitled to receive pursuant to the merger. However, if the market price of Discovery Partners common stock declines from the market price on the date of the merger agreement prior to the closing of the merger, Infinity securityholders would receive merger consideration with less value. Because the exchange ratios do not adjust as a result of changes in the value of Discovery Partners common stock, for each one percentage point that the market value of Discovery Partners common stock declines, there is a concomitant one percentage point decline in the value of the total merger consideration issued to Infinity securityholders. For example, on April 11, 2006, the date of the merger agreement, the closing price of Discovery Partners common stock, as reported on the NASDAQ Global Market, was \$2.41 per share. Assuming that a total of 55,000,000 shares of Discovery Partners common stock are issued to Infinity stockholders upon the closing of the merger at a per share value of \$2.41 per share, the aggregate merger consideration to be issued to Infinity stockholders in the merger would be approximately \$132.6 million. If, however, the closing price of Discovery Partners common stock on the date of closing of the merger had declined from \$2.41 per share to, for example, \$2.05 per share, a decline of 15%, the aggregate merger consideration to be issued to Infinity stockholders in the merger would decrease from approximately \$132.6 million to approximately \$112.8 million, a decline of \$19.8 million, or 15%.

Some of Discovery Partners' officers, directors and key employees and Infinity's officers and directors have interests in the merger that may be different from yours and may influence them to support the merger without regard to your interests.

Certain officers and directors of Discovery Partners and Infinity participate in arrangements that provide them with interests in the merger that may be different from yours, including, among others, the continued service as an officer or director of the combined company, retention and severance benefits, the acceleration of stock and stock option vesting and continued indemnification. For example, Discovery Partners' executive

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officers are each a party to change in control agreements with Discovery Partners that may result in cash payments to those officers, totaling approximately \$1.9 million, and the acceleration of stock options to purchase approximately 25,000 shares of Discovery Partners common stock, with exercise prices ranging from \$2.95 to \$4.20 per share, and 23,000 shares of restricted stock held by those officers assuming the merger closes and the officers are terminated by the combined company without cause or by the executive officer for good reason, as those terms are defined in the change in control agreements. Discovery Partners has also adopted retention and severance plans for certain of its executive officers and key employees that provide for the payment of cash bonuses and severance amounts, totaling approximately \$750,000, for the achievement of certain milestones if the officers and key employees remain employed with Discovery Partners through December 31, 2006 or are terminated by Discovery Partners, or its successor in a change in control, on or prior to December 31, 2006, and the accelerated vesting of 440,250 shares of the officers and key employees restricted stock. In addition, the closing of the merger will result in the acceleration of vesting of stock options to purchase 82,500 shares of Discovery Partners common stock, with exercise prices ranging from \$2.50 to \$5.93 per share, held by Discovery Partners non-employee directors. These interests, among others, may influence the officers and directors of Discovery Partners and Infinity to support or approve the merger. For a more detailed discussion see *The Merger Interests of Discovery Partners Directors and Executive Officers in the Merger* and *The Merger Interests of Infinity s Directors and Executive Officers in the Merger* on pages 77 and 81 of this joint proxy statement/prospectus.

Failure to complete the merger may result in Discovery Partners or Infinity paying a termination fee to the other and could harm Discovery Partners or Infinity s common stock price and future business and operations.

If the merger is not completed, Discovery Partners or Infinity may be subject to the following risks:

if the merger agreement is terminated under certain circumstances, Discovery Partners or Infinity will be required to pay the other party a termination fee of \$6 million;

the price of Discovery Partners stock may decline; and

costs related to the merger, such as legal, accounting and certain financial advisory fees, which Discovery Partners and Infinity each estimate will total approximately \$4.5 million and \$2.3 million, respectively, must be paid even if the merger is not completed.

In addition, if the merger agreement is terminated and Discovery Partners or Infinity s board of directors determines to seek another business combination, there can be no assurance that either party 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. In such circumstances, Discovery Partners board of directors may elect to attempt to complete another strategic transaction like the merger or take the steps necessary to liquidate all of Discovery Partners remaining assets, and in such cases, the consideration that Discovery Partners receives for its remaining assets may be less attractive than the consideration to be received by Discovery Partners stockholders pursuant to the merger agreement.

The merger may be completed even though material adverse changes may result from the announcement of the merger, industry-wide changes and other causes, which could result in a decline in the combined company s stock price and reduce the value of the merger to Infinity s securityholders.

In general, either Discovery Partners or Infinity can refuse to complete the merger if there is a material adverse change affecting the other party between April 11, 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 Discovery Partners or Infinity, including:

with respect to Discovery Partners, changes resulting from general economic conditions or conditions generally affecting the industry in which the company operates;

any failure to meet internal forecasts or projections;

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changes due to the announcement or pendency of the merger or the completion of the transactions contemplated by the merger agreement;

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 Discovery Partners, changes resulting from a change in the stock price or trading volume of Discovery Partners, excluding any underlying effect that may have caused such change.

If adverse changes occur but Discovery Partners and Infinity 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 securityholders of Infinity.

If the perceived benefits of the merger, including the benefits to the combined company's business and prospects, are not realized after the merger, 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.

If the combined company does not realize the anticipated benefits from the merger, Discovery Partners and Infinity stockholders may not realize a benefit from the merger commensurate with the ownership dilution they will experience in connection with the merger.

As a result of the planned merger, outstanding shares of Infinity common stock and Infinity preferred stock, and all options and warrants to purchase Infinity common stock and preferred stock, will be automatically converted into the right to receive shares of Discovery Partners common stock at the closing of the merger or, in the case of Infinity options and warrants, upon exercise of such options and warrants. The shares of Discovery Partners common stock that Infinity securityholders will be entitled to receive in the merger are expected to represent approximately 69% of the fully-diluted shares of the combined company immediately following the consummation of the merger. Accordingly, Discovery Partners securityholders who prior to the closing of the merger owned 100% of the fully-diluted Discovery Partners common stock will own approximately 31% of the fully-diluted shares of the combined company immediately following the consummation of the merger and Infinity securityholders who prior to the closing of the merger owned 100% of the fully-diluted Infinity capital stock will own approximately 69% of the fully-diluted shares of the combined company immediately following the consummation of the merger. Consequently, if the combined company is unable to realize the strategic and financial benefits currently anticipated from the merger, Discovery Partners and Infinity stockholders will have experienced substantial dilution of their ownership interest without receiving any commensurate benefit.

During the pendency of the merger, Discovery Partners and Infinity may not be able to enter into a business combination with another party at a price more favorable to Discovery Partners or Infinity's stockholders than the price received in the merger because of restrictions in the merger agreement.

Covenants in the merger agreement impede the ability of Discovery Partners and Infinity 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.

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In addition, while the merger agreement is in effect and subject to very narrowly defined exceptions, 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.

Because the lack of a public market for Infinity's capital stock makes it difficult to evaluate the fairness of the merger, the securityholders of Infinity may receive consideration in the merger that is greater than or less than the fair market value of Infinity's capital stock.

The outstanding capital stock of Infinity 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 Infinity. Since the percentage of Discovery Partners equity to be issued to Infinity securityholders was determined based on negotiations between the parties, it is possible that the value of Discovery Partners common stock to be issued in connection with the merger will be greater than the fair market value of Infinity. Alternatively, it is possible that the value of the shares of Discovery Partners common stock to be issued in connection with the merger will be less than the fair market value of Infinity.

Because Infinity's business will constitute the business of the combined company after the closing of the merger, if any of the events described in Risks Related to Infinity occur, those events could cause the potential benefits of the merger not to be realized.

Discovery Partners recently completed the sale of all of its material operating assets, and, as a result, Discovery Partners' business immediately following the merger will be the business conducted by Infinity immediately prior to the merger. As a result, the risks described below under

Risks Related to Infinity are the most significant risks to the combined company if the merger is completed. To the extent any of the events in the risks described below under Risks Related to Infinity occur, those events could cause the potential benefits of the merger not to be realized and the market price of the combined company's common stock to decline.

Risks Related to Discovery Partners

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, Discovery Partners has entered into the merger agreement with merger sub and Infinity pursuant to which merger sub will merge with and into Infinity, with Infinity as the surviving corporation becoming a wholly owned subsidiary of Discovery Partners.

Discovery Partners may not be able to complete the merger and may elect to pursue another strategic transaction like the merger or liquidate its remaining assets.

Discovery Partners cannot assure you that it will close the pending merger with Infinity in a timely manner or at all. On July 5, 2006, Discovery Partners completed the sale of all of the stock of Discovery Partners' operating subsidiaries and all of its material operating assets, including Discovery Partners' material intellectual property, information technology infrastructure, financial/accounting infrastructure, office furniture and other associated equipment to Galapagos and Biofocus. Discovery Partners' remaining assets following the sale consist primarily of its cash, cash equivalents and short-term investments, its listing on the NASDAQ Global Market and the merger agreement with Infinity. Following the completion of the sale transaction with Galapagos and Biofocus, approximately 16 of Discovery Partners' general and administrative personnel remain employed by Discovery Partners. If Discovery Partners does not close the pending merger with Infinity, Discovery Partners' board of directors may elect to attempt to complete another strategic transaction like the merger or take the steps necessary to liquidate all of Discovery Partners' remaining assets.

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Discovery Partners recently adopted severance and retention bonus plan may require material payments to key employees in connection with their continued service with Discovery Partners during 2006 or otherwise in connection with the merger.

The compensation committee of Discovery Partners' board of directors recently approved a severance and retention bonus plan for Discovery Partners' key employees, including certain key executive officers. That plan, together with existing Discovery Partners change in control agreements, would be triggered by the closing of the pending merger with Infinity or the employees' continuation of employment with Discovery Partners, or its successor following a change in control, through December 31, 2006 and the achievement of certain milestones on or before such date. If all eligible employees were awarded payments under the plan and under existing change of control agreements as a result of the closing of the merger followed by termination of such employee, the value of total awards would aggregate approximately \$3.8 million, with approximately \$2.6 million in cash payments and 463,250 shares of Discovery Partners common stock from the acceleration of vesting. These payments due to change in control or severance arrangements arising in connection with the merger or otherwise owed to Discovery Partners employees in connection with the merger will reduce Discovery Partners' net cash at the closing of the merger.

Discovery Partners' stock price will likely be volatile, and you may lose all or a substantial part of your investment.

The trading price of Discovery Partners' common stock has been and will likely continue to be volatile and could be subject to fluctuations in price in response to various factors, many of which are beyond its control, including:

announcements related to developments involving the merger with Infinity and to Infinity's business, including developments relating to Infinity's product candidates and their clinical and/or preclinical results;

actual or anticipated variations in quarterly operating results;

changes in financial estimates by, or the beginning or cessation of research coverage by, securities analysts;

the announcements by Discovery Partners of financial results that do not meet or exceed the results anticipated by the public markets;

conditions or trends in the pharmaceutical and biopharmaceutical industries that investors believe may affect the combined company;

announcements by Discovery Partners or Infinity's competitors of significant acquisitions, divestitures or other strategic transactions, collaborations, joint ventures or capital commitments;

additions or departures of key personnel;

economic and political factors; and

sales of Discovery Partners common stock, including sales by any of its stockholders who beneficially own more than 5% of

Discovery Partners common stock and who could potentially sell large amounts of Discovery Partners common stock at any one time.

From January 1, 2004 to June 30, 2006, the high and low prices for Discovery Partners common stock, as reported on the NASDAQ Global Market, were \$6.50 and \$2.24, respectively.

In addition, price and volume fluctuations in the stock market in general, and the NASDAQ Global Market and the market for technology companies in particular, have often been unrelated or disproportionate to the operating performance of those companies. Further, the market

prices of securities of life sciences companies have been particularly volatile. Conditions or trends in the pharmaceutical and biopharmaceutical industries generally may cause further volatility in the trading price of Discovery Partners common stock, because the

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market may anticipate that those conditions or trends may affect the combined company after the merger. These broad market and industry factors may harm the market price of Discovery Partners common stock, regardless of its operating performance. In the past, plaintiffs have often instituted securities class action litigation following instances of volatility in the market price of a company's securities. A securities class action suit against Discovery Partners could result in potential liabilities, substantial costs and the diversion of management's attention and resources, regardless of whether Discovery Partners wins or loses.

Discovery Partners may be subject to liability regarding hazardous materials.

Discovery Partners' former products and services as well as Discovery Partners' former research and development processes involved the controlled use of hazardous materials. For example, Discovery Partners often used dangerous acids, bases, oxidants, radio isotopic and flammable materials. Discovery Partners has been subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of such materials and certain waste products. Discovery Partners cannot completely eliminate the risk of accidental contamination or injury from these materials. In the event of such an accident, Discovery Partners could be held liable for any damages that result, and any such liability could exceed its resources. In addition, Discovery Partners may have to incur significant costs to comply with environmental laws and regulations related to the handling or disposal of such materials or waste products in the future, which would require it to spend substantial amounts of money. Discovery Partners does not maintain insurance for the use of hazardous materials and chemicals that would mitigate these potential liabilities.

Because it is unlikely that Discovery Partners will pay dividends, its stockholders will only be able to benefit from holding its stock if the stock price appreciates.

Discovery Partners has never paid cash dividends on its capital stock and does not anticipate paying any cash dividends in the foreseeable future. As a result, holders of Discovery Partners common stock will only be able to benefit from holding such stock if the stock price appreciates.

Anti-takeover provisions in Discovery Partners' stockholder rights plan and in its charter and bylaws could make a third-party acquisition of Discovery Partners difficult.

In 2003, Discovery Partners adopted a stockholder rights plan, also referred to as a poison pill. Also, Discovery Partners' certificate of incorporation and bylaws contain provisions that could make it more difficult for a third party to acquire it, even if doing so would be beneficial to its stockholders. These provisions could limit the price that investors might be willing to pay in the future for shares of Discovery Partners common stock.

Risks Related to Infinity

In determining whether to approve the merger, you should carefully read the following risk factors. Discovery Partners and Infinity anticipate that immediately following the merger the business of the combined company will be the business conducted by Infinity immediately prior to the merger. As a result, the following risks, and the risks factors set forth under the heading "Risks Related to the Combined Company," are the most significant that you will face if the merger is completed.

Risks Related to Infinity's Business

Infinity's business is at an early stage of development and Infinity does not have, and may never have, any products that generate revenues, which could harm Infinity's ability to achieve profitability.

Infinity is at an early stage of development as a company and has a limited operating history on which to evaluate its business and prospects. Since beginning operations in 2001, Infinity has not generated any revenue from the sale of drugs. Infinity currently has no drugs for sale and Infinity cannot guarantee that it will ever have any marketable drugs. Before Infinity can successfully sell any drugs, it must demonstrate to the FDA and other

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regulatory authorities in the United States, the European Union and elsewhere that its drug candidates satisfy rigorous standards of safety and efficacy for their intended uses. Significant additional research, preclinical testing and clinical testing is required before Infinity can file applications with the FDA or these other regulatory authorities for premarket approval of its drug candidates. In addition, to compete effectively, its marketed drugs, if any, must have a combined profile of safety, efficacy, ease of administration and cost-effectiveness such that they offer advantages over alternative treatment options. Infinity may not achieve this objective. IPI-504, Infinity's most advanced drug candidate, is in two Phase I clinical trials and is currently Infinity's only drug candidate in clinical trials. Infinity cannot be certain that the clinical development of this or any other drug candidates in preclinical testing will be successful, that they will receive the regulatory approvals required to commercialize them or that any of its other research and drug discovery programs will yield a drug candidate suitable for investigation through clinical trials. Accordingly, commercial revenues, if any, will be derived from sales of drugs that Infinity does not expect will become marketable for several years, if at all.

Infinity has a limited operating history and has incurred a cumulative loss since inception. If Infinity does not generate significant revenues, it will not be profitable and its business may fail.

Infinity has incurred significant losses since its inception in February 2001. At March 31, 2006, Infinity's accumulated deficit was approximately \$138 million. Infinity has experienced net losses of \$33.9 million, \$34.1 million, \$36.4 million and \$10.8 million for the fiscal years ending December 31, 2003, 2004 and 2005 and the quarterly period ended March 31, 2006, respectively. Infinity has not generated any revenues from the sale of drugs to date and does not expect to generate revenues from the sale of any drugs, or achieve profitability, for several years, if ever. Infinity expects that its annual operating losses will increase substantially over the next several years as Infinity seeks to:

complete Phase I clinical trials for IPI-504 and, if supported by the Phase I clinical trial results, initiate larger scale Phase II clinical trials, as well as additional clinical trials for IPI-504, including combination studies;

advance its preclinical Hedgehog inhibitor program into clinical trials, if supported by positive preclinical data;

discover and develop additional drug candidates, including Bcl-2 inhibitor compounds;

obtain regulatory approval for any drug candidates it successfully develops;

commercialize any product candidates for which regulatory approval is obtained;

prosecute and maintain its intellectual property rights relating to its product candidates and future products, if any;

hire additional clinical, scientific and management personnel and upgrade its operational, financial and management information systems and facilities; and

identify and acquire rights from third parties to additional compounds, drug candidates or drugs.

To become profitable, Infinity must successfully develop and obtain regulatory approval for its drug candidates and effectively manufacture, market and sell any drug candidates it develops. Accordingly, Infinity may never generate significant revenues and, even if it does generate significant revenues, it may never achieve profitability.

Infinity's operating history may make it difficult for you to accurately evaluate the success of its business to date and assess its future viability.

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Infinity commenced operations in February 2001. Infinity's operations to date have been limited to organizing and staffing the company, developing, and securing its technology and undertaking preclinical studies and initial clinical trials of its drug candidates. Infinity has not yet demonstrated its ability to obtain regulatory

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approval, formulate and manufacture a commercial-scale product, or conduct sales and marketing activities necessary for successful product commercialization. Consequently, any predictions you make about Infinity's future success or viability may not be as accurate as they could be if Infinity had a longer operating history.

Infinity will need substantial additional capital to fund its operations, including planned drug candidate development, manufacturing and commercialization. If Infinity does not have or cannot raise additional capital when needed, it will be unable to develop and commercialize its drug candidates successfully and it may have to limit or scale back its operations.

Assuming the merger closes and Discovery Partners' net cash at closing is approximately \$70 million, Infinity anticipates that it will have cash, cash equivalents and available-for-sale marketable securities of approximately \$90.0 million and that these funds will be sufficient to support its current operating plan, including planned increases in general and administrative and research and development expenses, through December 31, 2007. Infinity's currently-planned operating and capital requirements primarily include the need for working capital to, among other things:

continue clinical development of an intravenous formulation of IPI-504;

perform preclinical work on an oral formulation of IPI-504;

perform preclinical work on its Hedgehog pathway inhibitor program; and

design and produce its diversity-oriented synthesis compounds.

However, Infinity's operating plan after the merger may change as a result of many factors, including:

the progress and results of clinical trials of IPI-504;

the results of preclinical studies of potential Hedgehog pathway inhibitors, the results of discovery stage research for Bcl-2 inhibitor compounds and other programs, and its decision to initiate clinical trials if supported by preclinical results;

Infinity's ability to meet current compound delivery obligations to Novartis and Johnson & Johnson;

Infinity's needs for office and laboratory facilities;

Infinity's ability to continue to sublease excess space;

the timing of, and the costs involved in, obtaining regulatory approvals for its product candidates;

the cost of acquiring raw materials for, and of manufacturing, its product candidates;

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the costs involved in preparing, filing, prosecuting, maintaining and enforcing patent claims and other patent-related costs, including litigation costs;

the costs of establishing sales and marketing functions and of establishing commercial manufacturing arrangements if any drug candidates are approved;

Infinity's inability to maintain its existing strategic alliances;

the costs to satisfy obligations under potential future collaborations; and

the timing, receipt and amount of sales or royalties on future products, if any.

Infinity will require substantial additional cash to fund expenses that it expects to incur in both the near term and long term in connection with planned preclinical and clinical testing, regulatory review, manufacturing and

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sales and marketing efforts. Infinity may seek additional capital through a combination of private and public equity offerings, debt financings and strategic alliance and licensing arrangements. Such additional financing may not be available when Infinity needs it or may not be available on terms that are favorable to Infinity. To the extent that Infinity raises additional capital through the sale of equity or convertible debt securities, its stockholders' ownership interests will be diluted, and the terms may include liquidation or other preferences that adversely affect their rights as stockholders. Debt financing, if available, may involve agreements that include covenants limiting or restricting Infinity's ability to take specific actions such as incurring additional debt, making capital expenditures or declaring dividends. If Infinity raises additional funds through strategic alliances and licensing arrangements with third parties, Infinity may have to relinquish valuable rights to its technologies or drug candidates, or grant licenses on terms that are not favorable to it. If Infinity is unable to obtain adequate financing on a timely basis, it could be required to:

curtail significant discovery stage drug discovery programs that are designed to identify new drug candidates; and/or

terminate or delay clinical trials of IPI-504 or the preclinical or clinical development of its Hedgehog pathway inhibitor or one or more of its discovery stage programs; or

relinquish rights to product candidates or development programs that it may otherwise seek to develop or commercialize itself.

Infinity's market is subject to intense competition. If Infinity is unable to compete effectively, its drug candidates and any drugs that it may in the future develop may be rendered noncompetitive or obsolete.

Infinity is engaged in seeking to develop drugs in the cancer therapeutic segment of the pharmaceutical industry, which is highly competitive and rapidly changing. Many large pharmaceutical and biotechnology companies, academic institutions, governmental agencies and other public and private research organizations are pursuing the development of novel drugs that target various forms of cancer. Infinity faces, and expects to continue to face, intense and increasing competition as new products enter the market and advanced technologies become available. Moreover, there are a number of large pharmaceutical companies currently marketing and selling products to treat cancer, including Bristol-Myers Squibb Company, F. Hoffmann-La Roche Ltd., Novartis Pharma AG and Genentech, Inc. In addition to currently approved drugs, there are a significant number of drugs that are currently under development and may become available in the future for the treatment of various forms of cancer. Infinity is also aware that there are a number of companies that are currently seeking to develop drug candidates directed to the same biological targets that Infinity's drug candidates are designed to inhibit. Specifically, Infinity believes that Kosan Biosciences, Conforma Therapeutics Corporation (which recently announced its proposed acquisition by BiogenIdec Inc.), Serenex, Inc., Vernalis plc (in collaboration with Novartis) and Synta Pharmaceuticals have preclinical and early clinical stage development programs seeking to develop compounds that target Heat Shock Protein 90, or Hsp90, which is the target of Infinity's lead compound IPI-504. Curis, Inc. and Genentech Inc. have an early stage clinical development collaboration seeking to develop drugs that target the Hedgehog signaling pathway, which is also being targeted by Infinity. Gemin-X Biosciences and Abbott Laboratories are believed to be in early-stage development of compounds to target the Bcl-2 family of proteins, which is the target of an Infinity discovery effort as well.

Many of Infinity's competitors have:

significantly greater financial, technical and human resources than Infinity has and may be better equipped to discover, develop, manufacture and commercialize drug candidates;

more extensive experience in preclinical testing and clinical trials, obtaining regulatory approvals and manufacturing and marketing pharmaceutical products;

drug candidates that have been approved or are in late-stage clinical development; and/or

collaborative arrangements in Infinity's target markets with leading companies and research institutions.

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Competitive products and/or new treatment methods for the diseases Infinity is targeting may render Infinity's products, if any, obsolete, noncompetitive or uneconomical before Infinity can recover the expenses of developing and commercializing its drug candidates. If Infinity successfully develops and obtains approval for its drug candidates, Infinity will face competition based on the safety and effectiveness of its drug candidates, the timing of their entry into the market in relation to competitive products in development, the availability and cost of supply, marketing and sales capabilities, reimbursement coverage, price, patent position and other factors. If Infinity successfully develops drug candidates but those drug candidates do not achieve and maintain market acceptance, Infinity's business will not be successful.

If Infinity is not able to attract and retain key management and scientific personnel and advisors, Infinity's efforts to develop its drug candidates and achieve its other business objectives could be delayed or substantially impaired.

Infinity is highly dependent on its management team, particularly: Steven Holtzman, its Chief Executive Officer; Julian Adams, its President and Chief Scientific Officer; Adelene Perkins, its Executive Vice President and Chief Business Officer; and the other members of its leadership team, including Jeffrey Tong, its Vice President, Corporate and Product Development; David Grayzel, its Vice President, Clinical Development and Medical Affairs; James Wright, its Vice President, Pharmaceutical Development; Michael Foley, its Vice President, Chemistry; and Vito Palombella, its Vice President, Biology. All of Infinity's offer letters of employment with these principal members of its executive and scientific teams provide that employment is at-will, meaning that neither Infinity nor such employee is obligated to a fixed term of service and that the employment relationship may be terminated by either Infinity or the employee at any time and without notice and whether or not cause or good reason exists for such termination. Although Infinity does not have any reason to believe that it may lose the services of any of these persons in the foreseeable future, the loss of the services of any of these persons might impede the achievement of its research, development and commercialization objectives. Infinity does not maintain key person insurance on any of its employees.

Recruiting and retaining qualified scientific and business personnel will also be critical to Infinity's success. Infinity may not be able to attract and retain these personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. Infinity also experiences competition for the hiring of scientific personnel from universities and research institutions. In addition, Infinity relies on consultants and advisors, including scientific and clinical advisors, to assist it in formulating its research and development and commercialization strategy. Infinity's consultants and advisors may be employed by employers other than Infinity and may have commitments under consulting or advisory contracts with other entities that may limit their availability to Infinity.

Infinity's business has a substantial risk of product liability claims, which could be costly to defend and could divert management's attention. Moreover, if Infinity is unable to obtain and maintain appropriate levels of insurance, an adverse outcome in a product liability claim could be costly and could adversely affect its business.

Infinity's business exposes it to significant potential product liability risks that are inherent in the development, manufacture, sales and marketing of human therapeutic products. Although Infinity does not currently commercialize any products, claims could be made against it based on the use of its drug candidates in clinical trials. Infinity currently has clinical trial insurance and will seek to obtain product liability insurance prior to the sales and marketing of any of its drug candidates. However, Infinity's insurance may not provide adequate coverage against potential liabilities. Furthermore, clinical trial and product liability insurance is becoming increasingly expensive. As a result, Infinity may be unable to maintain current amounts of insurance coverage or obtain additional or sufficient insurance at a reasonable cost to protect against losses that could have a material adverse effect on it. If a claim is brought against Infinity, it might be required to pay legal and other expenses to defend the claim, as well as uncovered damage awards resulting from a claim brought successfully against Infinity. Furthermore, whether or not Infinity is ultimately successful in defending any such claims, it might be required to redirect significant financial and managerial resources to such defense, and adverse publicity is likely to result.

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Risks Related to the Development of Infinity's Drug Candidates

All of Infinity's drug candidates are still in the early stages of development and remain subject to clinical testing and regulatory approval. If Infinity is unable to successfully develop and test one or more of its drug candidates, or obtain U.S. and/or foreign regulatory approval, it will not be able to successfully commercialize its product candidates and achieve profitability and, accordingly, its business is likely to fail.

To date, Infinity has not obtained FDA approval to commercially distribute any of its drug candidates. The success of Infinity's business depends primarily upon its ability to develop and commercialize its drug candidates successfully. Infinity's most advanced drug candidate is IPI-504, which is currently in two Phase I clinical trials. Infinity's other drug candidates are in various stages of preclinical and discovery stage development.

Infinity's drug candidates are subject to extensive governmental regulations relating to development, clinical trials, manufacturing and commercialization. Rigorous preclinical testing and clinical trials and an extensive regulatory approval process are required in the United States and in many foreign jurisdictions prior to the commercial sale of Infinity's drug candidates. Satisfaction of these and other regulatory requirements is costly, time consuming, uncertain and subject to unanticipated delays. It is possible that none of the drug candidates Infinity is developing, or may in the future develop, will obtain marketing approval. In connection with the clinical trials of IPI-504 and any other drug candidate Infinity may seek to develop in the future, Infinity faces risks that:

the drug candidate may not prove to be safe and/or effective;

the results of later trials may not confirm the positive results from earlier preclinical studies or clinical trials; and

the results may not meet the level of statistical significance required by the FDA or other regulatory agencies.

Infinity has limited experience in conducting and managing the clinical trials necessary to obtain regulatory approvals, including approval by the FDA and/or comparable foreign regulatory agencies. The time required to complete clinical trials and for regulatory review by the FDA and other countries' regulatory agencies is uncertain and typically takes many years. Some of Infinity's drug products may be eligible for the FDA's programs that are designed to facilitate the development and expedite the review of 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. They may also be eligible for accelerated approval if they provide a meaningful therapeutic benefit over existing treatments. In addition, a drug product may receive priority review if it would, upon approval, provide a significant improvement compared to marketed products. However, there is no assurance that any of Infinity's products will qualify for one or more of these programs. Even if a drug product qualifies for one or more of these programs, the FDA may later decide that the product no longer meets the conditions for qualification. Infinity's analysis of data obtained from preclinical and clinical activities is subject to confirmation and interpretation by regulatory authorities, which could delay, limit or prevent regulatory approval. Infinity may also encounter unanticipated delays or increased costs due to government regulation from future legislation or administrative action or changes in FDA policy during the period of product development, clinical trials and FDA regulatory review.

Any delay in obtaining or failure to obtain required approvals could materially adversely affect Infinity's ability to generate revenues from the particular drug candidate. Furthermore, any regulatory approval to market a product may be subject to limitations on the indicated uses for which Infinity may market the product. These limitations may limit the size of the market for the product. Infinity is also subject to numerous foreign regulatory requirements governing the conduct of clinical trials, manufacturing and marketing authorization, pricing and third-party reimbursement. The foreign regulatory approval process includes all of the risks associated with FDA approval described above as well as risks attributable to the satisfaction of foreign regulations. Approval by the FDA does not ensure approval by regulatory authorities outside the United States. Foreign jurisdictions may have different approval procedures than those required by the FDA and may impose additional testing requirements for Infinity's drug candidates.

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If clinical trials of Infinity's drug candidates are prolonged, delayed or suspended, it may be unable to commercialize those drug candidates on a timely basis, if at all, and may incur substantial additional costs, either of which could adversely affect whether, or when, Infinity may achieve profitability.

Infinity cannot predict whether it will encounter problems with any of its ongoing or planned clinical trials that will cause Infinity or regulatory authorities to delay or suspend clinical trials, or delay the analysis of data from its ongoing clinical trials. Any of the following could delay the clinical development of Infinity's drug candidates:

ongoing discussions with the FDA or comparable foreign authorities regarding the scope or design of its clinical trials;

delays in receiving, or the inability to obtain, required approvals from institutional review boards or other reviewing entities at clinical sites selected for participation in its clinical trials;

delays in enrolling volunteers and patients into clinical trials;

a lower than anticipated retention rate of volunteers and patients in clinical trials;

the need to repeat clinical trials as a result of inconclusive or negative results or unforeseen complications in testing;

inadequate supply or deficient quality of drug 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 and unexpected drug-related side effects experienced by participants in its clinical trials;

a finding that the trial participants are being exposed to unacceptable health risks;

the placement by the FDA of a clinical hold on a trial; or

any restrictions on or post-approval commitments with regard to any regulatory approval Infinity ultimately obtains that render the drug candidate not commercially viable.

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

Furthermore, enrolled patients 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 patient discontinuation rate, including, but not limited to: the inclusion of a placebo arm in a trial; possible inactivity or low activity of the drug candidate being tested at one or more of the dose levels being tested; adverse side effects experienced,

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whether or not related to the drug candidate; and the availability of numerous alternative treatment options that may induce patients to discontinue their participation in the trial.

Infinity, the FDA or other applicable regulatory authorities may suspend clinical trials of a drug candidate at any time if Infinity or they believe the subjects or patients participating 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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Infinity cannot predict whether any of its drug candidates will encounter problems during clinical trials that will cause Infinity 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 Infinity experiences any such problems, it may not have the financial resources to continue development of the drug candidate that is affected or the development of any of its other drug candidates.

Infinity relies on third parties to conduct its clinical trials, and intends to rely on such third parties in the future. These third parties may not perform satisfactorily, including failing to meet established deadlines for the completion of such trials, which could result in unplanned delays or interruptions of such clinical trials and impede Infinity's ability to successfully develop the product candidates which are the subject of such trials.

Infinity relies on third parties such as medical institutions and principal investigators to enroll qualified patients, conduct Infinity's clinical trials and provide services in connection with such clinical trials. Infinity intends to rely on such third party medical institutions and principal investigators, as well as contract research organizations and other similar entities, in the future. Currently, Infinity relies upon five principal investigators at a total of four medical institutions to enroll qualified patients and conduct Infinity's clinical trials. Infinity also relies upon five service providers in connection with such clinical trials. Infinity's reliance on these third parties for clinical development activities reduces its control over these activities. Accordingly, these third-party contractors may not complete activities on schedule, or may not conduct Infinity's clinical trials in accordance with regulatory requirements or its trial design. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, Infinity may be required to replace them. Although Infinity believes that there are a number of third-party contractors Infinity could engage to continue these activities, replacing a third-party contractor may result in a delay of the affected trial. Accordingly, Infinity's efforts to obtain regulatory approvals for and commercialize its drug candidates may be delayed.

In addition, Infinity is responsible for ensuring that each of its clinical trials is conducted in accordance with the general investigational plan and protocols for the trial. The FDA requires Infinity to comply with certain standards, referred to as good clinical practices, for conducting, recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of trial participants are protected. Infinity's reliance on third parties that it does not control does not relieve Infinity of these responsibilities and requirements.

Even if Infinity obtains regulatory approvals, its drug candidates will be subject to ongoing regulatory review. If Infinity fails to comply with continuing U.S. and applicable foreign regulations, it could lose those approvals, and its business would be seriously harmed.

Even if Infinity receives regulatory approval of any drugs it is developing or may develop, Infinity will be subject to continuing regulatory review. Infinity may be required, or Infinity may elect, to conduct additional clinical trials of its drug candidates after they have become commercially available approved drugs. As greater numbers of patients use a drug following its approval, side effects and other problems may be observed after approval that were not seen or anticipated during pre-approval clinical trials. Supplemental trials could also produce findings that are inconsistent with the trial results Infinity has previously submitted to the FDA, which could result in marketing restrictions or force Infinity to stop marketing previously approved drugs. In addition, the manufacturer and the manufacturing facilities Infinity uses to make any approved drugs, will be subject to periodic review and inspection by the FDA. The subsequent discovery of previously unknown problems with the drug, manufacturer or facility may result in restrictions on the drug, manufacturer or facility, including withdrawal of the drug from the market. If Infinity fails to comply with applicable continuing regulatory requirements, it may be subject to fines, suspension or withdrawal of regulatory approval, product recalls and seizures, operating restrictions and criminal prosecutions.

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Infinity works with hazardous materials, which could expose it to liability claims and which will require compliance with environmental laws and regulations, which can be expensive and restrict how it conducts its business.

Infinity's activities involve the controlled storage, use and disposal of hazardous materials, including infectious agents, corrosive, explosive and flammable chemicals, various radioactive compounds and compounds known to cause birth defects. Infinity is subject to certain federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of these hazardous materials. Although Infinity believes that its safety procedures for handling and disposing of these materials comply with the standards prescribed by these laws and regulations, Infinity cannot eliminate the risk of accidental contamination or injury from these materials.

In the event of an accident, state or federal authorities may curtail Infinity's use of these materials, and it could be liable for any civil damages that result, which may exceed Infinity's financial resources and may seriously harm its business. While Infinity believes that the amount of insurance it carries is sufficient for typical risks regarding its handling of these materials, it may not be sufficient to cover pollution conditions or other extraordinary or unanticipated events. Additionally, an accident could damage, or force Infinity to shut down, its operations. In addition, if Infinity develops a manufacturing capacity, it may incur substantial costs to comply with environmental regulations and would be subject to the risk of accidental contamination or injury from the use of hazardous materials in its manufacturing process.

Risks Related to Planned Commercialization of Infinity's Drug Candidates

Infinity relies on third-party manufacturers to produce the raw materials and drug substance for its drug candidates and anticipates continued reliance on third-party manufacturers if it successfully commercializes any of its drug candidates. If these third-party manufacturers do not adequately perform, Infinity's ability to complete clinical trials in a timely manner and commercialize any product candidates would be adversely affected and Infinity may be required to incur significant time and expense to obtain alternative third-party manufacturing arrangements.

Infinity's drug candidates require precise, high quality manufacturing. Third-party manufacturers on which Infinity relies may not be able to comply with the FDA's current good manufacturing practices, or cGMPs, and other applicable government regulations and corresponding foreign standards. These regulations govern manufacturing processes and procedures and the implementation and operation of systems to control and assure the quality of products. The FDA may, at any time, audit or inspect a manufacturing facility to ensure compliance with cGMPs. Failure by Infinity's contract manufacturers to achieve and maintain high manufacturing and quality control standards could result in patient injury or death, and/or sanctions imposed on Infinity or the applicable contract manufacturer, including fines, injunctions, civil penalties, failure of regulatory authorities to grant marketing approval of Infinity's product candidates, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of product candidates or products, operating restrictions and criminal prosecution, any of which could significantly and adversely affect supplies of Infinity's product candidates and seriously hurt Infinity's business. Contract manufacturers may also encounter difficulties involving production yields or delays in performing their services. Infinity does not have control over third-party manufacturers' performance and compliance with these applicable regulations and standards.

If, for some reason, Infinity's manufacturers cannot perform as agreed, Infinity may be unable to replace such third-party manufacturers in a timely manner and the production of its drug candidates would be interrupted, resulting in delays in clinical trials and additional costs. Switching manufacturers may be difficult because the number of potential manufacturers is limited and, depending on the type of material manufactured at the contract facility, the change in contract manufacturer must be submitted to and/or approved by the FDA. In addition, a new manufacturer would have to be educated in, or develop substantially equivalent processes for, production of Infinity's drug candidates after receipt of FDA approval. It may be difficult or impossible for Infinity to find a replacement manufacturer on acceptable terms quickly, or at all.

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To date, Infinity's drug candidates have been manufactured in quantities for preclinical testing and clinical trials by third-party manufacturers. Currently, Infinity's drug candidates are being manufactured in quantities for preclinical testing and clinical trials by a total of nine third-party manufacturers. If the FDA or other regulatory agencies approve any of Infinity's drug candidates for commercial sale, Infinity expects that it would continue to rely, at least initially, on third-party manufacturers to produce commercial quantities of its approved drug candidates. These manufacturers may not be able to successfully increase the manufacturing capacity for any approved drug candidates in a timely or economical manner, or at all. Significant scale-up of manufacturing might entail changes in the manufacturing process that have to be submitted to and/or approved by the FDA. If contract manufacturers engaged by Infinity are unable to successfully increase the manufacturing capacity for a drug candidate or Infinity is unable to establish its own manufacturing capabilities, the commercial launch of any approved products may be delayed or there may be a shortage in supply.

If Infinity is unable to establish sales and marketing capabilities or enter into agreements with third parties to market and sell its drug candidates, if approved, Infinity may not generate product revenues and achieve profitability.

Infinity has no commercial products, and it does not currently have any sales and marketing capabilities. In order to successfully commercialize any drugs that may be approved in the future by the FDA or comparable foreign regulatory authorities, Infinity must build its sales and marketing capabilities or make arrangements with third parties to perform these services. If Infinity is unable to establish adequate sales, marketing and distribution capabilities, whether independently or with third parties, Infinity may not be able to generate product revenues and may not become profitable.

If physicians and patients do not accept Infinity's future drugs, Infinity may be unable to generate significant revenues from product sales, if any, to fund its operations and achieve profitability.

Even if Infinity's product candidates, or product candidates it may develop or acquire in the future, obtain regulatory approval, they may not gain market acceptance among physicians, patients and the medical community for a variety of reasons including:

timing of market introduction of competitive drugs;

lower demonstrated clinical safety and efficacy compared to other drugs;

lack of cost-effectiveness;

lack of availability of reimbursement from managed care plans and other third-party payors;

inconvenient and/or difficult administration;

prevalence and severity of adverse side effects;

potential advantages of alternative treatment methods;

safety concerns with similar drugs marketed by others;

the reluctance of the target population to try new therapies and of physicians to prescribe these therapies; and

ineffective marketing and distribution support.

If Infinity's approved drugs fail to achieve market acceptance, Infinity would not be able to generate significant revenue.

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If third-party payors do not adequately reimburse patients for any of Infinity's drug candidates that are approved for marketing, such product candidates might not be purchased or used, and Infinity's revenues and profits will not develop or increase.

Infinity's revenues and profits will depend significantly upon the availability of adequate reimbursement for the use of any approved drug candidates from governmental and other third-party payors, both in the United States and in foreign markets. Reimbursement by a third party may depend upon a number of factors, including the third-party payor's determination that use of a product is:

a covered benefit under its health plan;

safe, effective and medically necessary;

appropriate for the specific patient;

cost effective; and

neither experimental nor investigational.

Obtaining reimbursement approval for a product from each third-party and government payor is a time-consuming and costly process that could require Infinity to provide supporting scientific, clinical and cost-effectiveness data for the use of any approved drugs to each payor. Infinity may not be able to provide data sufficient to gain acceptance with respect to reimbursement. There also exists substantial uncertainty concerning third-party reimbursement for the use of any drug candidate incorporating new technology, and even if determined eligible, coverage may be more limited than the purposes for which the drug is approved by the FDA. Moreover, eligibility for coverage does not imply that any drug will be reimbursed in all cases or at a rate that allows Infinity to make a profit or even cover its costs. Interim payments for new products, if applicable, may also not be sufficient to cover Infinity's costs and may not be made permanent. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on payments allowed for lower-cost products that are already reimbursed and/or whether the drug is on a state's Medicaid preferred drug list, may be incorporated into existing payments for other products or services and may reflect budgetary constraints and/or imperfections in Medicare or Medicaid data used to calculate these rates. Net prices for products may be reduced by mandatory discounts or rebates required by government health care programs or by any future relaxation of laws that restrict imports of certain medical products from countries where they may be sold at lower prices than in the United States.

There have been, and Infinity expects that there will continue to be, federal and state proposals to constrain expenditures for medical products and services, which may affect payments for any of Infinity's approved products. The Centers for Medicare and Medicaid Services frequently change product descriptors, coverage policies, product and service codes, payment methodologies and reimbursement values. Third-party payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates and may have sufficient market power to demand significant price reductions. As a result of actions by these third-party payors, the health care industry is experiencing a trend toward containing or reducing costs through various means, including lowering reimbursement rates, limiting therapeutic class coverage and negotiating reduced payment schedules with service providers for drug products.

Infinity's inability to promptly obtain coverage and profitable reimbursement rates from government-funded and private payors for any approved products could have a material adverse effect on Infinity's operating results and its overall financial condition.

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Risks Related to Infinity's Dependence on Third Parties

Infinity may not be able to execute its business strategy if it is unable to enter into alliances with other companies that can provide capabilities and funds for the development and commercialization of Infinity's drug candidates. If Infinity is unsuccessful in forming or maintaining these alliances on favorable terms, its business may not succeed.

As part of its business strategy, Infinity expects to enter into alliances with major biotechnology or pharmaceutical companies to jointly develop specific drug candidates and to jointly commercialize them if they are approved. In such alliances, Infinity would expect its biotechnology or pharmaceutical collaborators to provide substantial funding, as well as significant capabilities in clinical development, regulatory affairs, marketing and sales. For example, Infinity has entered into an alliance with Novartis Institutes for BioMedical Research, Inc., or Novartis, for the development and commercialization of Bc1-2 drug candidates, and Infinity may seek to enter into additional alliances in the future. Infinity may not be successful in entering into any such alliances on favorable terms, if at all. Even if Infinity does succeed in securing such alliances, it may not be able to maintain them if, for example, development or approval of a drug candidate is delayed or sales of an approved drug are disappointing. Furthermore, any delay in entering into alliances could delay the development and commercialization of Infinity's drug candidates and reduce their competitiveness, even if they reach the market. Any such delay related to Infinity's alliances could adversely affect its business.

If an alliance partner terminates or fails to perform its obligations under agreements with Infinity, the development and commercialization of Infinity's drug candidates could be delayed or terminated.

If Novartis or any other future alliance partner does not devote sufficient time and resources to its alliance arrangements with Infinity, Infinity may not realize the potential commercial benefits of the arrangement, and its results of operations may be adversely affected. In addition, if any existing or future alliance partner were to breach or terminate its arrangements with Infinity, the development and commercialization of the affected drug candidate could be delayed, curtailed or terminated because Infinity may not have sufficient financial resources or capabilities to continue development and commercialization of the drug candidate on its own. Under Infinity's alliance agreement with Novartis, Novartis may terminate the alliance at any time upon 60 days' notice to Infinity. If Novartis were to exercise this right, the development and commercialization of products from Infinity's Bc1-2 program would be adversely affected, Infinity's potential for generating revenue from its Bc1-2 program may be adversely affected and it could make it difficult for Infinity to attract new alliance partners.

Much of the potential revenue from Infinity's existing and future alliances will 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 and royalty revenue that Infinity may receive under these alliances will depend upon Infinity and its alliance partner's ability to successfully develop, introduce, market and sell new products. In some cases, Infinity will not be involved in these processes and, accordingly, will depend entirely on its alliance partners. Infinity's alliance partners may fail to develop or effectively commercialize products using Infinity's products or technologies because they:

decide not to devote the necessary resources because of internal constraints, such as limited personnel with the requisite scientific expertise, limited cash resources or specialized equipment limitations, or the belief that other drug development programs may have a higher likelihood of obtaining regulatory approval or may potentially generate a greater return on investment;

do not have sufficient resources necessary to carry the drug candidate through clinical development, regulatory approval and commercialization; or

cannot obtain the necessary regulatory approvals.

In addition, an alliance partner may decide to pursue a competitive drug candidate developed outside of the alliance.

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If Infinity's alliance partners fail to develop or effectively commercialize drug candidates or drugs for any of these reasons, Infinity may not be able to independently develop and commercialize a drug or replace the alliance partner with another partner to develop and commercialize a drug candidate or drugs in a reasonable period of time, if at all.

Risks Related to Patents and Licenses

If Infinity is unable to adequately maintain patent protection for its drug candidates, or if any issued patents on its drug candidates are subsequently found to be invalid, Infinity's ability to successfully develop and commercialize its drug candidates will be harmed.

As of May 18, 2006, Infinity's patent portfolio includes a total of 15 patent applications worldwide. Infinity owns or holds exclusive licenses to a total of 10 U.S. patent applications, as well as 5 international applications. Infinity's success depends in part on its ability to obtain patent protection both in the United States and in other countries for its drug candidates. Infinity's ability to protect its drug candidates from unauthorized or infringing use by third parties depends in substantial part on Infinity's ability to obtain and maintain valid and enforceable patents.

Due to evolving legal standards relating to the patentability, validity and enforceability of patents covering pharmaceutical inventions and the scope of claims made under these patents, Infinity's ability to maintain, obtain and enforce patents that may issue from any pending or future patent application is uncertain and involves complex legal, scientific and factual questions. The standards which the United States Patent and Trademark Office, referred to herein as the U.S. Patent Office, and its foreign counterparts use to grant patents are not always applied predictably or uniformly and are ultimately subject to change. To date, no consistent policy has emerged regarding the breadth of claims allowed in biotechnology patents. Accordingly, rights under any issued patents may not provide Infinity with sufficient protection for its drug candidates or provide sufficient protection to afford Infinity a commercial advantage against competitive products or processes. In addition, Infinity cannot guarantee that any patents will issue from any pending or future patent applications owned by or licensed to Infinity. Even if patents will issue, Infinity cannot guarantee that the claims of these patents will be held valid or enforceable by a court of law or will provide Infinity with any significant protection against competitive products or otherwise be commercially valuable to Infinity. Patent applications in the United States are maintained in confidence for up to 18 months after their filing. In some cases, however, patent applications remain confidential in the U.S. Patent Office for the entire time prior to issuance as a U.S. patent. Similarly, publication of discoveries in the scientific or patent literature often lags behind actual discoveries. Consequently, Infinity cannot be certain that it was the first to invent, or the first to file patent applications on, Infinity's drug candidates or their use as anti-cancer drugs or for other indications. In the event that a third party has also filed a U.S. patent application relating to Infinity's drug candidates or a similar invention, Infinity may have to participate in interference proceedings declared by the U.S. Patent Office to determine priority of invention in the United States. Furthermore, the laws of some foreign jurisdictions do not protect intellectual property rights to the same extent as in the United States and many companies have encountered significant difficulties in protecting and defending such rights in foreign jurisdictions.

If Infinity encounters difficulties in protecting, or is otherwise precluded from effectively protecting, its intellectual property rights in foreign jurisdictions, Infinity's business prospects could be substantially harmed.

If Infinity's pending patent applications or any patents that it licenses or may own in the future are subject to an adverse decision in an interference proceeding, Infinity could lose significant rights under a patent or patent application and, accordingly, the success of its business could be harmed.

Patents and patent applications owned or licensed by Infinity may become the subject of interference proceedings in the U.S. Patent Office to determine priority of invention. For example, Infinity is aware of third parties who are actively researching ansamycin analogs that are similar to Infinity's lead candidate, IPI-504. These third parties have pending applications related to these analogs, but Infinity has the first published

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application covering IPI-504. It is possible that an interference could be declared between Infinity's application covering IPI-504 and one or more of these third-party applications. An adverse decision in an interference proceeding may result in the loss of rights under a patent or patent application. In addition, the cost of interference proceedings to uphold the validity of patents can be substantial.

A third party may allege that Infinity is infringing its intellectual property, causing Infinity to spend substantial resources on litigation, the outcome of which would be uncertain and could have a material adverse effect on the success of Infinity's business.

Infinity's commercial success will depend on whether there may be third-party patents, patent applications and other intellectual property relevant to Infinity's potential products that may block or compete with its product candidates or processes. Although Infinity is not currently aware of any litigation or other proceedings or third-party claims of intellectual property infringement related to its drug candidates, the pharmaceutical industry is characterized by extensive litigation regarding patents and other intellectual property rights. Other parties may obtain patents and claim that the use of Infinity's technologies infringes these patents or that Infinity is employing their proprietary technology without authorization. Infinity could incur substantial costs and diversion of management and technical personnel in defending against any claims that the use of its technologies infringes upon any patents, defending against any claim that it is employing any proprietary technology without authorization or enforcing its patents against others. The outcome of patent litigation is subject to uncertainties that cannot be adequately quantified in advance, including the demeanor and credibility of witnesses and the identity of the adverse party, especially in biotechnology related patent cases that may turn on the testimony of experts as to technical facts upon which experts may reasonably disagree. In the event of a successful claim of infringement against it, Infinity may be required to:

pay substantial damages;

stop developing, commercializing and selling the infringing drug candidates or approved products;

develop non-infringing products, technologies and methods; and

obtain one or more licenses from other parties, which could result in its paying substantial royalties or its granting of cross licenses to its technologies.

Furthermore, Infinity may not have identified all U.S. and foreign patents or published applications that affect its business either by blocking Infinity's ability to commercialize its drugs or by covering similar technologies that affect its drug market. In addition, Infinity may undertake research and development with respect to potential products even when it is aware of third-party patents that may be relevant to such potential products, on the basis that such patents may be challenged or licensed by Infinity. If a patent or other proceeding is resolved against Infinity, it may be enjoined from researching, developing, manufacturing or commercializing its product candidates without a license. Infinity may not be able to obtain such licenses on commercially acceptable terms or at all. Ultimately, Infinity may be unable to commercialize some of its potential products or may have to cease some of its business operations, which could severely harm its business.

Infinity may undertake infringement or other legal proceedings against a third party causing it to spend substantial resources on litigation, the outcome of which would be uncertain and could have a material adverse effect on the success of Infinity's business.

Competitors may infringe Infinity's licensed patents and/or patents that may be issued in the future pursuant to Infinity's current and future patent applications or successfully avoid them through design innovation. To prevent infringement or unauthorized use, Infinity may need to file infringement claims, which are expensive and time-consuming. In an infringement proceeding, a court may decide that a patent of Infinity's is not valid. Even if the validity of Infinity's patents is upheld, a court may refuse to stop the other party from using the technology at issue on the ground that its activities are not covered by Infinity's patents. In this case, third parties may be able to use Infinity's patented technology without paying licensing fees or royalties. Policing unauthorized use of

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Infinity's intellectual property is difficult, and Infinity may not be able to prevent misappropriation of its proprietary rights, particularly in countries where the laws may not protect such rights as fully as in the United States. Furthermore, it is unclear how much protection, if any, will be given to Infinity's patents if Infinity attempts to enforce them and they are challenged in court or in other proceedings. A competitor may successfully challenge Infinity's patents or a challenge could result in limitations of the patents' coverage.

Infinity also relies on unpatented technology, trade secrets, know-how and confidential information. Third parties may independently develop substantially equivalent information and techniques or otherwise gain access to or disclose its technology. Although third parties may challenge Infinity's rights to, or the scope or validity of, Infinity's patent applications or patents that may issue in the future pursuant to Infinity's current and future applications, to date, Infinity has not received any communications from third parties challenging its patent applications covering its drug candidates.

Infinity may be subject to claims that it or its employees have wrongfully used or disclosed alleged trade secrets of their former employers, which could result in substantial costs to defend such claims and may divert management's attention from the operation of its business.

As is commonplace in Infinity's industry, Infinity employs individuals who were previously employed at other biotechnology or pharmaceutical companies, including Infinity's competitors or potential competitors. Although no claims against Infinity are currently pending, it may be subject to claims that these employees or Infinity 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. Even if Infinity is successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

Confidentiality and intellectual property assignment agreements with employees and others may not adequately prevent unauthorized disclosure of trade secrets and other proprietary information and may not adequately protect Infinity's intellectual property. Infinity could incur significant costs in seeking to enforce these agreements in the event of a breach and any failure to adequately protect its trade secrets and other confidential and proprietary information could harm Infinity's business.

Infinity relies on trade secrets to protect its technology, especially where Infinity does not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. In order to protect its proprietary technology and processes, Infinity also relies in part on confidentiality and intellectual property assignment agreements with its corporate partners, employees, consultants, outside scientific collaborators and sponsored researchers and other advisors. Infinity requires each of these individuals and entities to execute a confidentiality agreement at the commencement of a relationship with it. These agreements may not effectively prevent disclosure of confidential information nor result in the effective assignment to Infinity of intellectual property, and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information or other breaches of the agreements. In addition, others may independently discover Infinity's trade secrets and proprietary information, and in such case Infinity could not assert any trade secret rights against such party. Enforcing a claim that a party illegally obtained and is using Infinity's trade secrets is difficult, expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the United States may be less willing to protect trade secrets. Costly and time-consuming litigation could be necessary to seek to enforce and determine the scope of Infinity's proprietary rights and could result in a diversion of management's attention, and failure to obtain or maintain trade secret protection could adversely affect Infinity's competitive business position.

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Infinity has entered into, and may in the future enter into additional, licenses with third parties that give Infinity rights to intellectual property that are necessary or useful for the conduct of its business. If the owners of such intellectual property do not properly maintain or enforce the patents underlying such licenses, Infinity's competitive position and business prospects will be harmed.

Infinity has entered into licenses that give Infinity rights to third-party intellectual property and may enter into additional licenses in the future. For example, Infinity has obtained a non-exclusive worldwide license from Nexus Biosystems relating to radio frequency tagging to enable Infinity to use such technology to efficiently synthesize and characterize its diversity oriented synthesis small molecule libraries. Infinity's success will depend in part on the ability of any key licensors to obtain, maintain and enforce patent protection for their intellectual property, in particular, those patents to which Infinity has secured exclusive rights. Infinity's licensors may not successfully prosecute the patent applications to which Infinity is licensed. Even if patents issue in respect of these patent applications, Infinity's licensors may fail to maintain these patents, may determine not to pursue litigation against other companies that are infringing these patents, or may pursue such litigation less aggressively than Infinity would. Without protection for the intellectual property Infinity licenses, other companies might be able to offer substantially identical products for sale, which could adversely affect Infinity's competitive business position and harm its business prospects.

If Infinity fails to obtain necessary or useful licenses, it could encounter substantial delays in the research, development and commercialization of its product candidates, which could affect its ability to achieve profitability.

If in the future Infinity determines that it is required to in-license technology that is necessary or useful for its business, Infinity may not be able to obtain such licenses from other parties at a reasonable cost, or at all. If Infinity is not able to obtain necessary licenses at a reasonable cost, or at all, it could encounter substantial delays in developing and commercializing its product candidates while it attempts to develop alternative technologies, methods and product candidates, which it may not be able to accomplish. Furthermore, if Infinity fails to comply with its obligations in its intellectual property licenses with third parties, Infinity could lose license rights that are important to its business.

Risks Related to the Combined Company

In determining whether you should approve the merger or the issuance of shares of Discovery Partners common stock pursuant to the merger, as the case may be, you should carefully read the following risk factors. Discovery Partners and Infinity anticipate that immediately following the merger, the business of the combined company will be the business conducted by Infinity immediately prior to the merger. As a result, the risk factors set forth under the heading "Risks Related to Infinity," together with the following risks, are the most significant you will face if the merger is completed.

The combined company's stock price is expected to be volatile, and the market price of its common stock may decline in value 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 IPI-504 and its other drug candidates;

the results of preclinical studies and planned clinical trials of the combined company's discovery stage and preclinical programs;

the entry into, or termination of, key agreements, including key strategic alliance agreements;

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the results and timing of regulatory reviews relating to the approval of the combined company's drug 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 drug 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 drug candidates;

issues in manufacturing the combined company's drug 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 additional time and incur additional expense to comply with public company regulations. Failure by the combined company to comply with such regulations could subject the combined company to public investigations, fines, enforcement actions and other sanctions by regulatory agencies and authorities and, as a result, its stock price could decline in value.

As a public company, the combined company will incur significant legal, accounting and other expenses that Infinity did 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

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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 Infinity 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 and the combined company's independent registered public accounting firm to report on the effectiveness of its internal controls over financial reporting, as required by Section 404 of the

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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.

The combined company does not anticipate paying cash dividends, and accordingly, stockholders must rely on stock appreciation for any return on their investment in the combined company.

The combined company anticipates that it will retain its earnings, if any, for future growth and therefore does not anticipate paying cash dividends in the future. As a result, only appreciation of the price of the combined company's common stock will provide a return to stockholders. Investors seeking cash dividends should not invest in the combined company's common stock.

Anti-takeover provisions in the combined company's stockholder rights plan and in its charter 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.

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FORWARD-LOOKING STATEMENTS

This joint proxy statement/prospectus contains forward-looking statements of Discovery Partners within the meaning of the Private Securities Litigation Reform Act of 1995, which is applicable to Discovery Partners because Discovery Partners is a public company subject to the reporting requirements of the Exchange Act but is not applicable to Infinity because Infinity 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 Discovery Partners and Infinity's stockholders;

the efficacy, safety and intended utilization of Infinity's drug candidates;

the conduct and results of Infinity's research, discovery and preclinical efforts and clinical trials;

Infinity's plans regarding future research, discovery and preclinical efforts and clinical activities and collaborative, intellectual property and regulatory activities;

the amount of cash and cash equivalents that Discovery Partners anticipates it will hold on the closing date of the merger;

the period in which Infinity expects cash will be available to fund its current operating plan, both before and after giving effect to the merger;

the amount of shares Discovery Partners expects to issue in the merger; and

each of Discovery Partners and Infinity's results of operations, financial condition and businesses, and products and drug 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, 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:

Discovery Partners and Infinity may not be able to complete the proposed merger;

Discovery Partners' net cash at closing may be lower than currently anticipated;

Infinity's drug 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 drug candidates.

Many of the important factors that will determine these results and values are beyond Discovery Partners' and Infinity's ability to control or predict. You are cautioned not to put undue reliance on any forward-looking statements. Except as otherwise required by law, Discovery Partners and Infinity 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" beginning on page 22 of this joint proxy statement/prospectus.

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THE SPECIAL MEETING OF DISCOVERY PARTNERS STOCKHOLDERS

Date, Time and Place

The special meeting of Discovery Partners stockholders will be held on September 12, 2006, at the offices of Cooley Godward LLP, 4401 Eastgate Mall, San Diego, California 92121 commencing at 1:00 p.m. local time. Discovery Partners is sending this joint proxy statement/prospectus to its stockholders in connection with the solicitation of proxies by the Discovery Partners board of directors for use at the Discovery Partners special meeting and any adjournments or postponements of the special meeting. This joint proxy statement/prospectus is first being furnished to stockholders of Discovery Partners on or about [], 2006.

Purposes of the Discovery Partners Special Meeting

The purposes of the Discovery Partners special meeting are:

1. To consider and vote upon a proposal to approve the issuance of Discovery Partners common stock pursuant to the Agreement and Plan of Merger and Reorganization, dated as of April 11, 2006, by and among Discovery Partners, Darwin Corp., a wholly owned subsidiary of Discovery Partners, and Infinity Pharmaceuticals, Inc., a Delaware corporation, as described in this joint proxy statement/prospectus.
2. To approve an amendment to Discovery Partners certificate of incorporation effecting the reverse stock split, as described in this joint proxy statement/prospectus.
3. To approve an amendment to Discovery Partners certificate of incorporation to change the name of Discovery Partners International, Inc. to Infinity Pharmaceuticals, Inc.
4. To approve an amendment, effective as of immediately following the effective time of the closing of the merger, to Discovery Partners bylaws to increase the maximum number of directors that may constitute the entire board of directors of Discovery Partners from 10 directors to 12 directors, as described in this joint proxy statement/prospectus.
5. To approve an amendment to the Discovery Partners 2000 Stock Incentive Plan increasing the number of shares authorized for issuance thereunder, effective as of immediately following the effective time of the closing of the merger, and amending the provisions thereof regarding the number of shares by which the share reserve automatically increases each year, the maximum number of shares one person may receive per calendar year under the plan and the purchase price, if any, to be paid by a recipient for common stock under the plan, as described in this joint proxy statement/prospectus.
6. To consider and vote upon an adjournment of the Discovery Partners special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Discovery Partners Proposal Nos. 1 and 2.
7. To transact such other business as may properly come before the special meeting or any adjournment or postponement thereof.

Recommendation of Discovery Partners Board of Directors

THE DISCOVERY PARTNERS BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT THE ISSUANCE OF SHARES OF DISCOVERY PARTNERS COMMON STOCK PURSUANT TO THE MERGER IS ADVISABLE TO, AND IN THE BEST INTERESTS OF, DISCOVERY PARTNERS AND ITS STOCKHOLDERS AND HAS APPROVED SUCH ITEMS. THE DISCOVERY PARTNERS BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT DISCOVERY PARTNERS STOCKHOLDERS VOTE FOR DISCOVERY PARTNERS PROPOSAL NO. 1 TO APPROVE THE ISSUANCE OF SHARES OF

DISCOVERY PARTNERS COMMON STOCK PURSUANT TO THE MERGER.

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THE DISCOVERY PARTNERS BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT IT IS ADVISABLE TO, AND IN THE BEST INTERESTS OF, DISCOVERY PARTNERS AND ITS STOCKHOLDERS TO APPROVE AN AMENDMENT TO DISCOVERY PARTNERS CERTIFICATE OF INCORPORATION EFFECTING THE REVERSE STOCK SPLIT, AS DESCRIBED IN THIS JOINT PROXY STATEMENT/PROSPECTUS. THE DISCOVERY PARTNERS BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT DISCOVERY PARTNERS STOCKHOLDERS VOTE FOR DISCOVERY PARTNERS PROPOSAL NO. 2 TO APPROVE THE AMENDMENT TO DISCOVERY PARTNERS CERTIFICATE OF INCORPORATION EFFECTING THE REVERSE STOCK SPLIT, AS DESCRIBED IN THIS JOINT PROXY STATEMENT/PROSPECTUS.

THE DISCOVERY PARTNERS BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT THE AMENDMENT OF DISCOVERY PARTNERS CERTIFICATE OF INCORPORATION TO CHANGE THE NAME OF DISCOVERY PARTNERS TO INFINITY PHARMACEUTICALS, INC. IS ADVISABLE TO, AND IN THE BEST INTERESTS OF, DISCOVERY PARTNERS AND ITS STOCKHOLDERS AND HAS APPROVED SUCH NAME CHANGE. THE DISCOVERY PARTNERS BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT DISCOVERY PARTNERS STOCKHOLDERS VOTE FOR DISCOVERY PARTNERS PROPOSAL NO. 3 TO APPROVE THE NAME CHANGE.

THE DISCOVERY PARTNERS BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT THE AMENDMENT OF DISCOVERY PARTNERS BYLAWS TO INCREASE THE MAXIMUM NUMBER OF DIRECTORS THAT MAY CONSTITUTE THE ENTIRE BOARD OF DIRECTORS OF DISCOVERY PARTNERS FROM 10 DIRECTORS TO 12 DIRECTORS IS ADVISABLE TO, AND IN THE BEST INTERESTS OF, DISCOVERY PARTNERS AND ITS STOCKHOLDERS AND HAS APPROVED SUCH BYLAWS AMENDMENT. THE DISCOVERY PARTNERS BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT DISCOVERY PARTNERS STOCKHOLDERS VOTE FOR DISCOVERY PARTNERS PROPOSAL NO. 4 TO APPROVE THE BYLAWS AMENDMENT.

THE DISCOVERY PARTNERS BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT THE AMENDMENT TO THE DISCOVERY PARTNERS 2000 STOCK INCENTIVE PLAN INCREASING THE NUMBER OF SHARES AVAILABLE FOR ISSUANCE THEREUNDER, EFFECTIVE AS OF IMMEDIATELY FOLLOWING THE EFFECTIVE TIME OF THE CLOSING OF THE MERGER, AND AMENDING THE PROVISIONS THEREOF REGARDING THE NUMBER OF SHARES BY WHICH THE SHARE RESERVE AUTOMATICALLY INCREASES EACH YEAR, THE MAXIMUM NUMBER OF SHARES ONE PERSON MAY RECEIVE PER CALENDAR YEAR UNDER THE PLAN AND THE PURCHASE PRICE, IF ANY, TO BE PAID BY A RECIPIENT FOR COMMON STOCK UNDER THE PLAN, AS DESCRIBED IN THIS JOINT PROXY STATEMENT/PROSPECTUS, IS ADVISABLE TO, AND IN THE BEST INTERESTS OF, DISCOVERY PARTNERS AND ITS STOCKHOLDERS AND HAS APPROVED AND ADOPTED SUCH AMENDMENT OF THE 2000 STOCK INCENTIVE PLAN. THE DISCOVERY PARTNERS BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT DISCOVERY PARTNERS STOCKHOLDERS VOTE FOR DISCOVERY PARTNERS PROPOSAL NO. 5 TO APPROVE THE AMENDMENT TO THE DISCOVERY PARTNERS 2000 STOCK INCENTIVE PLAN.

THE DISCOVERY PARTNERS BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT ADJOURNING THE DISCOVERY PARTNERS SPECIAL MEETING, IF NECESSARY, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF DISCOVERY PARTNERS PROPOSAL NOS. 1 AND 2 IS ADVISABLE TO, AND IN THE BEST INTERESTS OF, DISCOVERY PARTNERS AND ITS STOCKHOLDERS AND HAS APPROVED AND ADOPTED THE PROPOSAL. THE DISCOVERY PARTNERS BOARD OF DIRECTORS

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UNANIMOUSLY RECOMMENDS THAT DISCOVERY PARTNERS STOCKHOLDERS VOTE FOR DISCOVERY PARTNERS PROPOSAL NO. 6 TO ADJOURN THE DISCOVERY PARTNERS SPECIAL MEETING, IF NECESSARY, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF DISCOVERY PARTNERS PROPOSAL NOS. 1 AND 2.

Record Date and Voting Power

Only holders of record of Discovery Partners common stock at the close of business on the record date, August 1, 2006, are entitled to notice of, and to vote at, the Discovery Partners special meeting. There were approximately 100 holders of record of Discovery Partners common stock at the close of business on the record date. Because many of such shares are held by brokers and other institutions on behalf of stockholders, Discovery Partners is unable to estimate the total number of stockholders represented by these record holders. At the close of business on the record date, 26,436,931 shares of Discovery Partners common stock were issued and outstanding. Each share of Discovery Partners common stock entitles the holder thereof to one vote on each matter submitted for stockholder approval. See Principal Stockholders of Discovery Partners on page 215 of this joint proxy statement/prospectus for information regarding persons known to the management of Discovery Partners to be the beneficial owners of more than 5% of the outstanding shares of Discovery Partners 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 Discovery Partners for use at the Discovery Partners special meeting.

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

To vote in person, come to the Discovery Partners special meeting and Discovery Partners 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 Discovery Partners before the Discovery Partners special meeting, Discovery Partners 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 11, 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 11, 2006 to be counted.

All properly executed proxies that are not revoked will be voted at the Discovery Partners special meeting and at any adjournments or postponements of the Discovery Partners special meeting in accordance with the instructions contained in the proxy. If a holder of Discovery Partners common stock executes and returns a proxy and does not specify otherwise, the shares represented by that proxy will be voted FOR Discovery Partners Proposal No. 1 to approve the issuance of shares of Discovery Partners common stock pursuant to the merger; FOR Discovery Partners Proposal No. 2 to approve an amendment to Discovery Partners certificate of incorporation effecting the reverse stock split described in this joint proxy statement/prospectus; FOR Discovery Partners Proposal No. 3 to approve an amendment to Discovery Partners certificate of incorporation to change the name of Discovery Partners International, Inc. to Infinity Pharmaceuticals, Inc. ; FOR

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Discovery Partners Proposal No. 4 to amend Discovery Partners bylaws to increase the maximum number of directors that may constitute the entire board of directors of Discovery Partners from 10 directors to 12 directors; FOR Discovery Partners Proposal No. 5 to approve an amendment to the Discovery Partners 2000 Stock Incentive Plan increasing the number of shares authorized for issuance thereunder, effective as of immediately following the effective time of the closing of the merger, and amending the provisions thereof regarding the number of shares by which the share reserve automatically increases each year, the maximum number of shares one person may receive per calendar year under the plan and the purchase price, if any, to be paid by a recipient for common stock under the plan, as described in this joint proxy statement/prospectus, and FOR Discovery Partners Proposal No. 6 to adjourn the Discovery Partners special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of Discovery Partners Proposal Nos. 1 and 2 in accordance with the recommendation of the Discovery Partners board of directors.

A Discovery Partners stockholder of record as of the applicable record date described above who has submitted a proxy may revoke it at any time before it is voted at the Discovery Partners special meeting by executing and returning a proxy bearing a later date, providing proxy instructions via the telephone or the Internet (your latest telephone or Internet proxy is counted), filing written notice of revocation with the Secretary of Discovery Partners stating that the proxy is revoked or attending the special meeting and voting in person.

Required Vote

The presence, in person or represented by proxy, at the Discovery Partners special meeting of the holders of a majority of the shares of Discovery Partners common stock outstanding and entitled to vote at the Discovery Partners special 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 Discovery Partners Proposal Nos. 1, 5 and 6 requires the affirmative vote of the holders of a majority of the Discovery Partners common stock having voting power present in person or represented by proxy at the Discovery Partners special meeting. Approval of each of Discovery Partners Proposal Nos. 2 and 3 requires the affirmative vote of holders of a majority of the Discovery Partners common stock having voting power outstanding on the record date for the Discovery Partners special meeting. Approval of Discovery Partners Proposal No. 4 requires the affirmative vote of holders of 66 2/3% of the Discovery Partners common stock having voting power outstanding on the record date for the Discovery Partners special meeting.

Votes will be counted by the inspector of election appointed for the meeting, who will separately count For and Against votes, abstentions and broker non-votes. Abstentions will be counted towards the vote total for each proposal and will have the same effect as Against votes. Broker non-votes will have the same effect as Against votes for any proposal except Discovery Partners Proposal Nos. 1, 5 and 6. For Discovery Partners Proposal Nos. 1, 5 and 6, broker non-votes will have no effect and will not be counted towards the vote total.

At the record date for the Discovery Partners special meeting, the directors and executive officers of Discovery Partners owned approximately 0.1% of the outstanding shares of Discovery Partners common stock entitled to vote at the Discovery Partners special meeting. Stockholders owning approximately 72,121 shares of Discovery Partners common stock, representing approximately 0.3% of the outstanding shares of Discovery Partners common stock as of the record date, are subject to voting agreements and irrevocable proxies. Each such stockholder has agreed in the voting agreements to vote all shares of Discovery Partners common stock owned by him as of the record date in favor of the issuance of shares of Discovery Partners common stock pursuant to the merger and the amendment to Discovery Partners certificate of incorporation effecting the reverse stock split, as described in this joint proxy statement/prospectus. Each also granted Infinity an irrevocable proxy to vote his shares of Discovery Partners common stock in favor of the issuance of shares of Discovery Partners common stock pursuant to the merger and the amendment to Discovery Partners certificate of incorporation effecting the reverse stock split. See Agreements Related to the Merger Voting Agreements on page 108 of this joint proxy statement/prospectus. As of July 7, 2006, neither Infinity, nor any affiliates of Infinity, owned any shares of Discovery Partners common stock entitled to vote at the Discovery Partners special meeting.

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Solicitation of Proxies

In addition to solicitation by mail, the directors, officers, employees and agents of Discovery Partners may solicit proxies from Discovery Partners stockholders by personal interview, telephone, telegram or otherwise. Discovery Partners has engaged Georgeson Shareholder Communications Inc., a proxy solicitation firm, to solicit proxies. Discovery Partners and Infinity will share equally the costs of the solicitation of proxies by Discovery Partners from Discovery Partners stockholders. Arrangements will also be made with brokerage firms and other custodians, nominees and fiduciaries who are record holders of Discovery Partners common stock for the forwarding of solicitation materials to the beneficial owners of Discovery Partners common stock. Discovery Partners 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. Discovery Partners has retained Georgeson Shareholder Communications Inc. for a fee of approximately \$8,000 plus reimbursement of out-of-pocket expenses and a \$5.00 per call charge for all telephone calls made in connection with proxy solicitations or stockholder votes over the telephone.

Other Matters

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

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THE SPECIAL MEETING OF INFINITY STOCKHOLDERS

General

Infinity is furnishing this joint proxy statement/prospectus to holders of Infinity common stock and Infinity preferred stock in connection with the solicitation of proxies by the Infinity board of directors for use at the Infinity special meeting to be held on September 12, 2006 and at any adjournment or postponement thereof. This joint proxy statement/prospectus is first being furnished to stockholders of Infinity on or about [], 2006.

Date, Time and Place

The special meeting of Infinity stockholders will be held on September 12, 2006 at 1:00 p.m., local time, at the offices of Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston, Massachusetts 02109.

Purposes of the Infinity Special Meeting

The purposes of the Infinity special meeting are:

1. To consider and vote upon Infinity Proposal No. 1 to adopt the merger agreement.
2. To consider and vote on Infinity Proposal No. 2 to adjourn the Infinity special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the adoption of the merger agreement.
3. To transact such other business as may properly come before the Infinity special meeting or any adjournment or postponement of the Infinity special meeting.

Recommendations of Infinity's Board of Directors

THE INFINITY BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT THE MERGER IS ADVISABLE AND FAIR TO, AND IN THE BEST INTERESTS OF, INFINITY AND ITS STOCKHOLDERS AND HAS APPROVED THE MERGER AND THE MERGER AGREEMENT. THE INFINITY BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT INFINITY STOCKHOLDERS VOTE FOR INFINITY PROPOSAL NO. 1 TO ADOPT THE MERGER AGREEMENT.

THE INFINITY BOARD OF DIRECTORS HAS CONCLUDED THAT THE PROPOSAL TO ADJOURN THE INFINITY 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, INFINITY AND ITS STOCKHOLDERS AND HAS APPROVED AND ADOPTED THE PROPOSAL. ACCORDINGLY, THE INFINITY BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT INFINITY STOCKHOLDERS VOTE FOR INFINITY PROPOSAL NO. 2 TO ADJOURN THE INFINITY 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

Infinity has fixed the close of business on July 28, 2006 as the record date for determination of the holders of Infinity common stock and Infinity preferred stock entitled to notice of and to attend and vote at the Infinity special meeting or at any adjournment or postponement thereof. As of the close of business on July 28, 2006, there were 12,509,444 shares of Infinity common stock and 39,719,447 shares of Infinity preferred stock, consisting of 8,134,999 shares of Series A preferred stock, 19,473,336 shares of Series B preferred stock, 11,111,112 shares of Series C preferred stock and 1,000,000 shares of Series D preferred stock, outstanding and entitled to vote. Each share of Infinity common stock and each share of Infinity preferred stock entitles its holder to one vote at the Infinity special meeting on all matters properly presented at the Infinity special meeting.

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Quorum and Vote of Infinity Stockholders Required

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

The adoption of the merger agreement requires the affirmative vote of the holders of (a) a majority of the shares of Infinity common stock and Infinity preferred stock, outstanding as of the record date and entitled to vote thereon, voting together as a single class and on an as-converted basis, and (b) a majority of the shares of Infinity preferred stock, outstanding as of the record date and entitled to vote thereon, voting separately as a single class and on an as-converted basis.

The adjournment of the Infinity 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 Infinity 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 Infinity 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 April 30, 2006, stockholders of Infinity that collectively owned 6,023,553 shares of common stock and 23,352,247 shares of preferred stock of Infinity, representing approximately 47.9% of the outstanding capital stock of Infinity and approximately 48.19% of the outstanding preferred stock of Infinity, 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 Infinity 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 Infinity. See [Agreements Related to the Merger Voting Agreements](#) on page 108 of this joint proxy statement/prospectus.

If you do not submit a proxy card or vote at the Infinity special meeting, your shares of Infinity common stock and/or Infinity 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 Infinity 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

Infinity requests that its stockholders complete, date and sign the accompanying proxy and promptly return it in the accompanying envelope or otherwise mail it to Infinity. All properly executed proxies that Infinity receives prior to the vote at the Infinity 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 and to adjourn the Infinity special meeting, if necessary, to solicit additional proxies if there are not sufficient votes in favor of the adoption of the merger agreement. Infinity's board of directors does not currently intend to bring any other business before the Infinity special meeting and, so far as Infinity's board of directors knows, no other matters are to be brought before the special meeting. If other business properly comes before the Infinity 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 Infinity 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 Infinity for such services.

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Revocation of Proxies

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

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THE MERGER

*This section and the section entitled **The Merger Agreement** beginning on page 95 of this joint proxy statement/prospectus describe the material aspects of the merger, including the merger agreement. While Discovery Partners and Infinity 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 Molecular Securities, attached as Annex B, and the other documents to which you are referred herein. See **Where You Can Find More Information** on page 224 of this joint proxy statement/prospectus.*

Background of the Merger

Since its inception, Infinity has had a business objective of developing a pipeline of proprietary medicines. Recognizing the significant investment that would be required to develop this pipeline, Infinity has, since its inception, continually assessed its access to capital and its capital needs. As part of this ongoing assessment, Infinity considered the relative advantages and disadvantages of various means of financing the development of Infinity's proprietary medicines pipeline, including private financings, an initial public offering, partnerships with pharmaceutical companies, project financing and merger and acquisition transactions. This ongoing assessment and analysis included, from time to time, discussions with various biotechnology industry contacts, including industry executives and investors, investment bankers and securities analysts, professional services providers and other biotechnology industry experts, concerning the state of public and private equity markets for biotechnology companies.

On August 23, 2005, Discovery Partners' board of directors and management received a report from L.E.K. Consulting LLC, outside strategic consultant to Discovery Partners, discussing L.E.K. Consulting's assessment of the viability of Discovery Partners' then current business model, pricing pressures on that business model resulting from recent trends in Discovery Partners' industry, including the out-sourcing of drug discovery services similar to those provided by Discovery Partners at lower prices, and several possible strategic alternatives, including the relative advantages and adverse effects of Discovery Partners expanding its products and services, becoming a drug discovery company and merging with a competitor or biotechnology company.

On September 13, 2005 and September 14, 2005, Discovery Partners' management team convened a strategic planning session at Discovery Partners' offices in Heidelberg, Germany to discuss the report of L.E.K. Consulting delivered to Discovery Partners' board of directors and management on August 23, 2005. Various alternatives suggested by the L.E.K. Consulting report were discussed, including possible strategic transactions with drug discovery and development companies, including Infinity, identified for discussion by L.E.K. Consulting and Molecular Securities Inc., an investment bank, at the direction and with the assistance of Discovery Partners' management.

On September 30, 2005, Molecular Securities provided to Discovery Partners a representative list of potential strategic transaction partners in the drug discovery businesses, including Infinity, selected based on various factors defined by Discovery Partners' management, including, among other things, financial considerations applicable to such entities, whether the entities were seeking to build an existing drug discovery service business and whether the entities had clinical or preclinical drug candidates in development.

On October 3, 2005, representatives of the Discovery Partners board of directors and management met with representatives of Molecular Securities at Molecular Securities' offices in New York to discuss potential strategic transaction partners. On the same day, Discovery Partners' management team visited with two other strategic advisors in New York to discuss alternative strategic transactions.

On or about October 6, 2005 and October 7, 2005, in connection with Discovery Partners' management's preliminary attempts to gauge interest regarding a potential strategic transaction, Discovery Partners' former

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Chief Executive Officer, and Harry Hixson, Jr., Chairman of Discovery Partners' board of directors, separately made initial contact by telephone with Steven Holtzman, Infinity's Chief Executive Officer, and Anthony Evnin, an Infinity director, regarding the possibility of a potential business combination in which the historical businesses of both Discovery Partners and Infinity would survive such business combination. Mr. Holtzman indicated to Discovery Partners' former Chief Executive Officer that Infinity was not then interested in pursuing such business combination.

On October 27, 2005, the Discovery Partners board of directors and management met to review and discuss strategic alternatives and opportunities, as well as engagement proposals from L.E.K. Consulting and Molecular Securities. At the meeting, Discovery Partners management made a presentation to the Discovery Partners board of directors regarding the results of management's preliminary attempts to gauge interest regarding a potential strategic transaction through initial discussions with various potential strategic transaction partners included in the representative list of potential strategic transaction partners provided to Discovery Partners by Molecular Securities at the September 30, 2005 meeting of the Discovery Partners board of directors. Also at the meeting, L.E.K. Consulting delivered recommendations regarding primary scientific and financial criteria to be included in a screening process to be undertaken by Discovery Partners for strategic transaction partners in the drug discovery sector. The scientific criteria included therapies that the compounds held by potential strategic transaction partners were designed to address, as well as the clinical progress of the potential partners' lead compounds. Financial criteria included the financing history, market capitalization and cash position of the potential strategic transaction partners. At the conclusion of the meeting, the Discovery Partners board of directors authorized the Discovery Partners management to negotiate engagements with L.E.K. Consulting and Molecular Securities.

On November 17, 2005, Discovery Partners formally engaged L.E.K. Consulting to initiate a detailed process of screening potential partners in the drug discovery sector to participate in a strategic transaction of the type that had been proposed at the October 27, 2005 meeting.

On November 21, 2005, Discovery Partners and Molecular Securities executed an engagement letter formally retaining Molecular Securities as Discovery Partners' investment banking firm in connection with the potential strategic transaction.

On December 15, 2005, the Discovery Partners board of directors and management met with representatives from L.E.K. Consulting and Molecular Securities who made a joint presentation to the Discovery Partners board of directors regarding identified potential strategic transaction partners resulting from a joint screening process by L.E.K. Consulting and Molecular Securities based on the scientific and financial criteria discussed in L.E.K. Consulting's presentation to the Discovery Partners board of directors at its meeting on October 27, 2005. A number of companies identified as possible strategic transaction partners, including Infinity, were discussed and the Discovery Partners board of directors determined to contact potential strategic partners for meetings beginning in late 2005 and early 2006. The Discovery Partners board of directors also discussed the risks inherent in strategic transactions such as those proposed by L.E.K. Consulting and Molecular Securities, including the expense associated with such a transaction, the relatively low rate of successful commercialization for early stage clinical compounds, the risk that it may lose a significant number of its customers once a strategic transaction was announced, and the risk associated with attempting to transition its business and operations to that of a biotechnology company in the event it ultimately elected to exit the drug discovery business.

During the weeks immediately following the December 15, 2005 meeting of the Discovery Partners board of directors, Molecular Securities and Discovery Partners' management contacted potential strategic partners selected by the Discovery Partners board of directors to schedule introductory meetings regarding a potential business combination. The potential strategic transaction partners that were contacted were selected based on, among other things, their clinical compounds and anticipated timelines for advancing those compounds through the clinic, their preclinical pipeline of compounds, the scientific quality of their clinical and preclinical compounds and their financing history and perceived need for additional financing.

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Between January 9, 2006 and January 11, 2006, representatives from the Discovery Partners board of directors and management and Molecular Securities met separately with the chief executive officers and other members of management and the boards of directors of five potential strategic transaction partners, including Infinity, in San Francisco, California. These five potential strategic transaction partners were all private venture-backed biotechnology companies based in the U.S. and in Europe, each focused on small molecule therapeutics for oncology, inflammation or infectious diseases with varied scientific quality, and each had lead compounds in or approaching Phase I or early Phase II clinical trials, and financing histories and cash burn rates that indicated these companies would require financing prior to achieving key development milestones for their lead compounds.

On January 11, 2006, representatives from the Discovery Partners board of directors and management and representatives from Molecular Securities met with representatives of Infinity's management and board of directors in San Francisco, California. At this meeting, Discovery Partners and Infinity each presented summary non-confidential information regarding each company's business and research and development activities. Each party also discussed its level of interest in pursuing a potential business combination. At the conclusion of such discussions, the parties decided to continue to explore a potential business combination.

On January 19, 2006, representatives from the Discovery Partners board of directors and management and a representative from Molecular Securities met with representatives of Infinity at Infinity's headquarters in Cambridge, Massachusetts. At this meeting, a mutual confidentiality agreement was executed between the two parties and detailed presentations regarding Discovery Partners' business and Infinity's research and development activities were presented and discussed.

Infinity's board of directors met on January 26, 2006 to discuss Infinity's financing needs and the relative advantages and disadvantages of its various financing alternatives, including private and public offerings, collaborations with major pharmaceutical companies, project financing and a reverse merger with Discovery Partners. During this meeting, Infinity's board of directors concluded that it was unclear which, if any, of the various financing alternatives that it was considering would be available to Infinity when needed and, if available, whether the terms of any such financing would be favorable to Infinity and its stockholders. After a full discussion, Infinity management recommended the continued consideration of all financing alternatives, including a strategic transaction with Discovery Partners, and the Infinity board of directors agreed with management's recommendation and concluded that such course of action was in the best interests of Infinity's stockholders.

Over the course of the following week, management and representatives of Infinity and Discovery Partners continued their discussions regarding each company's strategic interests.

From January 29, 2006 to February 2, 2006, representatives from the Discovery Partners board of directors and management and/or Molecular Securities attended and participated in detailed presentations of the research and development activities of the four other potential strategic transaction partners.

On February 2, 2006, Molecular Securities, on behalf of Discovery Partners, sent a letter to each of the five potential strategic transaction partners, including Infinity, inviting each of them to submit a non-binding written indication of interest regarding a business combination with Discovery Partners by February 13, 2006.

Between February 3, 2006 and February 13, 2006, Infinity engaged in multiple internal discussions, as well as discussions with Wilmer Cutler Pickering Hale and Dorr LLP, or WilmerHale, its outside legal counsel, certain informal discussions with biotechnology industry contacts, such as investment bankers experienced in initial public offerings, mergers and acquisitions and other financings involving biotechnology companies and financial officers of other biotechnology companies, and representatives of Discovery Partners' board of directors and management with respect to the form and structure of the merger proposal to be made by Infinity to

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Discovery Partners. In addition, the Infinity board of directors considered certain potentially adverse effects of the proposed strategic transaction with Discovery Partners. In particular, the Infinity board of directors considered the risk that Infinity's decision to pursue the merger with Discovery Partners could be viewed as an acknowledgment that Infinity was not able to access public markets through an initial public offering and the potential negative impact such a perception could have on Infinity's reputation in the capital markets going forward. After considering these potentially adverse effects, the Infinity board determined that the quality of Infinity's product candidates, personnel and strategy, as well as the planned sale or disposition of Discovery Partners' operating assets, would be a significant differentiating factor in overcoming any negative impressions relating to a decision by Infinity to pursue the merger with Discovery Partners. Infinity also communicated with a representative of Molecular Securities regarding the submission of its non-binding indication of interest letter.

On February 13, 2006, five potential strategic transaction partners, including Infinity, submitted non-binding indication of interest letters to Discovery Partners care of Molecular Securities setting forth the form and structure of their specific merger proposals for Discovery Partners.

In connection with the submission of a non-binding indication of interest letter by Infinity, Infinity and Discovery Partners agreed upon a set of exchange ratios based on targeted net cash balances of Discovery Partners at the closing of the merger, which exchange ratios and targeted net cash balances appear on pages 96 and 97 of this joint proxy statement/prospectus. As a result, Infinity's pre-money valuation is a function of the number of shares to be issued to Infinity's securityholders in connection with the merger, which number of shares is based on the net cash balance of Discovery Partners at the closing of the merger and the corresponding exchange ratios, multiplied by the price per share of Discovery Partners common stock at the time of execution of the merger agreement. For example, assuming Discovery Partners' net cash at closing is greater than or equal to \$70 million and less than or equal to \$75 million, and using the closing price per share of Discovery Partners common stock on the date the merger agreement was executed (\$2.41) and the approximate number of shares to be issued to Infinity's securityholders in connection with the merger (61 million shares), Infinity's pre-money valuation would have equaled approximately \$147.1 million. These material terms did not change significantly during the course of negotiations between Infinity and Discovery Partners.

On February 16, 2006, the Discovery Partners board of directors discussed the five non-binding indication of interest letters with management and representatives from Molecular Securities and Cooley Godward LLP, outside legal counsel to Discovery Partners. The discussion included a description for the Discovery Partners board of directors of the information obtained by Discovery Partners from each of the five potential strategic transaction partners, including information as to their clinical compounds and timelines to results, preclinical pipeline, drug discovery and development platform, anticipated collaborative and other strategic transactions (apart from any transaction with Discovery Partners), financial condition and financing alternatives, management, management and investor expectations concerning a liquidity event, relative valuation expectations and basis therefor, desire for specific Discovery Partners assets, and anticipated near- and longer-term material business developments, the relative advantages and disadvantages in engaging in a strategic transaction with each of the potential strategic transaction partners, as well as a summary of the terms of each of the non-binding indications of interest letters. Following this discussion, the Discovery Partners board of directors directed Discovery Partners' management to conduct additional due diligence with the assistance of L.E.K. Consulting and Easton Associates, LLC, a scientific and business consulting group engaged by Discovery Partners to conduct an independent assessment of the scientific merits of the remaining potential strategic transaction partners, and, with the assistance of Molecular Securities, to begin discussions regarding a potential strategic transaction with three potential strategic transaction partners, including Infinity. The Discovery Partners board of directors determined to eliminate two of the five potential strategic transaction partners because of, among other things, the stage of development of their clinical compounds and overall development and communication timelines and the significant risks associated with achieving key development milestones for their primary compounds relative to those of the other potential strategic transaction partners.

By February 21, 2006, Molecular Securities informed the five potential strategic transaction partners of the determination of the Discovery Partners board of directors at its meeting on February 16, 2006. One of the three

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remaining potential strategic transaction partners identified by the Discovery Partners board of directors for a potential strategic transaction declined to engage in further discussions.

On March 2, 2006, members of management of the other potential strategic transaction partner, along with representatives of that potential strategic transaction partner's independent auditors, financial advisors and outside legal counsel, conducted due diligence of Discovery Partners in San Diego, California.

Between March 8, 2006 and March 10, 2006, Michael Venuti, Acting Chief Executive Officer and a director of Discovery Partners, and representatives of Easton Associates met with two of the potential strategic transaction partners, including Infinity, to conduct detailed due diligence at each partner's headquarters. A representative of Molecular Securities was also present at these meetings.

On March 8, 2006, Cooley Godward provided to representatives of both Infinity and WilmerHale, as well as representatives of the other potential strategic transaction partner, a draft of the merger agreement.

On March 9, 2006 and March 10, 2006, Dr. Venuti, and representatives of Easton Associates, met with the management of Infinity in Cambridge, Massachusetts to conduct a scientific due diligence assessment of Infinity. A representative of Molecular Securities was also present at these meetings.

On March 13, 2006, representatives of Discovery Partners' management and Cooley Godward conducted financial, business and legal due diligence of Infinity at the offices of WilmerHale in Boston, Massachusetts.

On March 14, 2006, representatives of Discovery Partners' management and Cooley Godward conducted financial, business and legal due diligence of the other potential strategic transaction partner at such company's headquarters.

On March 15, 2006, members of management of the other potential strategic transaction partner met with members of L.E.K. Consulting in connection with L.E.K. Consulting's commercial and scientific due diligence review of the other potential strategic transaction partner.

On March 20, 2006 and March 21, 2006, members of Infinity management, along with representatives of Ernst & Young LLP, Infinity's independent auditors, and WilmerHale, conducted financial, business and legal due diligence of Discovery Partners in San Diego, California.

On March 21, 2006, Infinity met with members of L.E.K. Consulting in Cambridge in connection with L.E.K. Consulting's commercial and scientific due diligence review of Infinity.

On March 21, 2006 and March 22, 2006, members of management of the other potential strategic transaction partner met with Urs Regenass, Chief Executive Officer of Discovery Partners AG, Discovery Partners' Switzerland-based subsidiary, Fritz Hansske, Managing Director of Discovery Partners GmbH, Discovery Partners' Germany-based subsidiary, and other members of their respective senior staffs to conduct scientific diligence on Discovery Partners' European operations in Basel, Switzerland and Heidelberg, Germany.

On March 22, 2006, representatives of Ernst & Young LLP, Los Angeles, Discovery Partners' independent auditors, conducted financial due diligence of Infinity at the offices of Ernst & Young LLP in Boston, Massachusetts.

On March 23, 2006, representatives of Ernst & Young LLP, Los Angeles, conducted financial due diligence of the other potential strategic transaction partner on behalf of Discovery Partners at the offices of Ernst & Young LLP in the city where the other potential strategic transaction partner's headquarters were located.

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On March 23, 2006 and March 24, 2006, members of Infinity's management team met with Dr. Regenass and Dr. Hansske and other members of their respective senior staffs to conduct scientific diligence on Discovery Partners' European operations.

On March 24, 2006, representatives of L.E.K. Consulting met by telephone with Mr. Holtzman to discuss additional commercial due diligence matters related to Infinity.

On March 30, 2006, the Discovery Partners board of directors met to discuss the status and findings of Discovery Partners and its advisors regarding their ongoing due diligence investigation of Infinity and the other potential strategic transaction partner. At this meeting, Molecular Securities discussed a proposed timeline for closing a reverse merger transaction and valuation matters related to Infinity and the other potential strategic transaction partner. Assuming Discovery Partners' net cash at closing is greater than or equal to \$70 million and less than or equal to \$75 million, and using the closing price per share of Discovery Partners common stock on the date the merger agreement was executed (\$2.41) and the approximate number of shares to be issued to Infinity's securityholders in connection with the merger (61 million shares), Infinity's pre-money valuation in connection with the merger equaled \$147.1 million. This amount compares to a pre-money valuation of approximately \$140 million to \$180 million proposed by the other potential strategic transaction partner. The proposed consideration offered by the other potential strategic transaction partner was never finally agreed by Discovery Partners and the other potential strategic transaction partner and at all times during negotiations with such potential partner was discussed within a possible range of values. Also at this meeting, Cooley Godward and Discovery Partners management reviewed the terms of the proposed merger agreement received from each of Infinity and the other potential strategic transaction partner. Cooley Godward also provided a review of due diligence it conducted with respect to the intellectual property of Infinity and the other potential strategic partner and a review of Discovery Partners' board of directors' fiduciary duties in connection with the proposed strategic transaction. Ernst & Young provided the results of its financial due diligence on Infinity and the other potential strategic transaction partner. Easton Associates made a presentation regarding the results of its scientific due diligence on Infinity and the other potential strategic transaction partner focusing on, among other things, the stage of development of their respective clinical compounds, timelines to results associated with these lead compounds, and significant risks associated with milestone achievements for these compounds. L.E.K. Consulting also made a presentation to the Discovery Partners board of directors regarding the results of its due diligence on Infinity and the other potential strategic transaction partner and their respective clinical products, including obstacles associated with achieving key milestones for their lead compounds, the breadth and depth of their compound pipelines, possible applications for each potential partner's existing and proposed therapies, and competition faced by each potential partner. Discovery Partners' management also provided an overview of the strategic process leading up to this meeting and the status of Discovery Partners and its management's and advisors' discussions with each of Infinity and the other potential strategic transaction partner. At the conclusion of this meeting, the Discovery Partners board of directors directed Discovery Partners' management, Molecular Securities and Cooley Godward to begin merger agreement negotiations with Infinity and the other potential strategic transaction partner, and identified Infinity as the preferred merger partner based on, among other things, the potential for development and commercialization of its compound pipeline relative to that of the other potential strategic transaction partner better supported Infinity's proposed valuation in the potential transaction, the clinical stage of Infinity's lead compound and the opportunities for entry of Infinity's preclinical compounds into clinical trials in the near term, Infinity's more attractive timelines to results and newsflow associated with these lead compounds relative to those of the other potential strategic transaction partner and the superior potential for multiple applications for Infinity's compounds versus that of the other potential strategic transaction partner.

From March 30, 2006 through April 11, 2006, the parties, together with their respective outside legal counsel, engaged in negotiations regarding the merger agreement and related documentation, including the applicable exchange ratios, closing conditions, including with respect to Discovery Partners' net cash at closing, termination rights and fees, pre-closing covenants applicable to the parties, representations and warranties and

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additional covenants. During this period, final agreement on these and other issues was reached over the course of numerous discussions involving Discovery Partners and Infinity's respective management and counsel. During the same period, Discovery Partners and the other potential strategic transaction partner, together with their respective outside legal counsel and investment bankers, engaged in negotiations regarding the draft merger agreement and related documentation. Discovery Partners also continued scientific discussions with such other potential strategic transaction partner.

Between April 6, 2006 and April 8, 2006, representatives of the Discovery Partners board of directors and management, Infinity's board of directors and management, Molecular Securities, Cooley Godward and WilmerHale (by telephone) convened in the offices of Discovery Partners and in the offices of Cooley Godward in San Diego, California to discuss the terms of the merger agreement, including among other things the exchange ratios related to the transaction, the proposed sale of Discovery Partners' operating assets and the calculation of Discovery Partners' net cash at the closing of the merger, and certain other outstanding transaction issues.

On April 7, 2006, merger sub was incorporated in the State of Delaware.

On April 9, 2006, Infinity's board of directors convened by teleconference with members of Infinity management, certain significant Infinity stockholders holding board observation rights and representatives of WilmerHale to discuss the status of the negotiations relating to the proposed merger agreement and related documentation, noting in each case certain salient issues that remained open for resolution. In addition, representatives of WilmerHale reviewed with the Infinity board of directors its fiduciary duties in connection with the proposed transaction and engaged in a question and answers session with members of the Infinity board of directors and board observers. WilmerHale noted that specific authorization for the proposed business combination with Discovery Partners would be taken up at a subsequent meeting of Infinity's board of directors. Following this discussion, the Infinity board of directors directed Infinity management to continue negotiations with Discovery Partners.

On April 10, 2006, the Discovery Partners board of directors convened by teleconference to discuss the status of the merger agreement with Infinity as well as the status of negotiations with the other potential strategic transaction partner. Discovery Partners' management discussed the relative strategic and scientific benefits of a merger with either Infinity or the other potential strategic transaction partner and reaffirmed that Infinity was the preferred merger partner because, among other things, the potential for development and commercialization of Infinity's compound pipeline relative to that of the other potential strategic transaction partner better supported Infinity's proposed valuation in the potential transaction, the clinical stage of Infinity's lead compound and the opportunities for entry of Infinity's preclinical compounds into clinical trials in the near term relative to the clinical stage of the lead compound and opportunities for clinical trials for the other potential strategic transaction partner, Infinity's more attractive timelines to results and newsflow associated with its lead compounds relative to those of the other potential strategic transaction partner, the advanced negotiation stage of Infinity's merger agreement relative to that of the other potential strategic transaction partner and the superior potential for multiple applications for Infinity's compounds versus that of the other potential strategic transaction partner. Representatives from Cooley Godward provided an overview of the merger agreement with Infinity and related documents, including remaining open issues between the parties. Discovery Partners' board of directors considered various risks inherent in the terms of the proposed transaction and the merger agreement, including the risks associated with merging with a company with compounds in relatively early stages of clinical trials, the possibility that Discovery Partners would not have \$60 million in net cash at closing which would allow Infinity the right to terminate the merger agreement, that the \$6 million termination fee in the merger agreement might act as a potential deterrent to other potential suitors for Discovery Partners and the potential that few, if any, members of Discovery Partners' management would be offered opportunities to continue as employees of the combined company. Representatives of Molecular Securities provided an update regarding the status of negotiations with Infinity and the other potential strategic transaction partner. Following this discussion, the Discovery Partners board of directors indicated general support

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for management's assessment that Infinity continued to be the preferred merger partner and directed Discovery Partners management to continue negotiations with Infinity.

On the afternoon of April 11, 2006, the Discovery Partners board of directors convened by teleconference to discuss the proposed merger transaction with Infinity. Representatives from Cooley Godward provided an update regarding the merger agreement with Infinity and related documents, including the resolution of the open issues noted at the meeting of the Discovery Partners board of directors on April 10, 2006. Representatives of Molecular Securities then made a presentation regarding its financial analyses related to the merger consideration to be paid by Discovery Partners and delivered to the Discovery Partners board of directors its oral opinion, which was subsequently delivered in writing on April 11, 2006, that, as of April 11, 2006 and based on and subject to the factors, assumptions and limitations set forth therein, the total merger consideration to be paid by Discovery Partners in the merger was fair to Discovery Partners from a financial point of view. Discovery Partners' board of directors, after considering the terms of the merger agreement and the related documents and the various presentations, approved the merger agreement, the merger, the issuance of shares of Discovery Partners common stock to Infinity securityholders pursuant to the terms of the merger agreement and the other documents and transactions contemplated by the merger agreement, subject to clarification by Cooley Godward with WilmerHale regarding certain matters related to the size of the board of directors of the combined company and whether the maximum size of such board would be 10 or 12 members.

On April 11, 2006, Infinity's board of directors convened by teleconference to discuss the proposed merger transaction with Discovery Partners. Infinity management, together with representatives of WilmerHale, summarized for members of the Infinity board the status of the draft merger agreement and related documentation and the resolution of the issues noted at the meeting of Infinity's board on April 9, 2006. Following this summary and the related discussion, the Infinity board of directors, after considering the terms of the merger agreement and the various presentations made by members of management and outside legal counsel, authorized the merger, the merger agreement and the transactions contemplated by the merger agreement and recommended the adoption of the merger agreement by Infinity's stockholders.

On the evening of April 11, 2006, the Discovery Partners board of directors convened by teleconference to discuss the proposed composition of the board of directors of the combined company following the merger. Representatives from Cooley Godward reported back on their discussions with WilmerHale regarding the matter that the Discovery Partners board of directors had requested be clarified at its earlier meeting on April 11, 2006. After this report, the Discovery Partners board of directors approved that a proposal be presented to the Discovery Partners stockholders at the Discovery Partners special meeting to amend Discovery Partners' bylaws to increase the maximum number of directors that may constitute the entire board of directors of Discovery Partners from 10 directors to 12 directors, and otherwise reaffirmed its approvals of the merger agreement, the merger, and the related matters approved by the Discovery Partners board of directors at its earlier meeting on April 11, 2006.

On the evening of April 11, 2006, Discovery Partners and Infinity executed the merger agreement, certain Infinity directors, officers and stockholders executed voting agreements with Discovery Partners, certain Discovery Partners directors and officers executed voting agreements with Infinity, and certain Infinity stockholders executed lock-up agreements with Discovery Partners. Prior to the opening of trading markets on April 12, 2006, the parties issued a joint press release announcing the execution of the merger agreement. At no time prior to the issuance of the joint press release did either Discovery Partners or Infinity have discussions with any of its respective customers, suppliers, collaboration partners or other significant third parties regarding the merger between Discovery Partners and Infinity.

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Reasons for the Merger

Mutual Reasons for the Merger

Infinity and Discovery Partners believe that the combined company resulting from the merger represents a biopharmaceutical company with the following potential advantages:

Pipeline. The product candidate pipeline for the combined company is composed of product candidates in various stages of development, including one product candidate in two Phase I clinical trials, one program in preclinical studies for which Infinity is seeking to initiate clinical trials in 2007 and a research program partnered with a major pharmaceutical company.

Markets. The markets to be addressed by the clinical stage and preclinical product candidates of the combined company represent sizable and underserved or unmet medical needs. The product candidates may provide significant medical benefits for patients and returns for investors.

Financial Resources. The financial resources of the combined company are expected to allow it to focus on execution with respect to its product candidate portfolio.

Management Team. It is expected that the combined company will be led by experienced senior management from Infinity and a board of directors with representation from each of Infinity and Discovery Partners.

Discovery Partners' Reasons for the Merger

In reaching its determination to approve the merger, Discovery Partners' board of directors identified and considered a number of the potential benefits of the merger, including the following:

the belief that Discovery Partners' ownership in Infinity's product candidate pipeline would provide Discovery Partners' stockholders a product-based investment opportunity of market-recognized value, including the potential to participate in several value-inflection milestones related to Infinity's product candidates. In the near term, these milestones may include the release of proof-of-concept clinical data for IPI-504 in two relevant cancer patient populations and the entry of IPI-504 into one or more Phase II clinical trials, and the introduction of a Hedgehog pathway inhibitor product candidate into clinical trials in 2007;

the receipt of an opinion from Molecular Securities Inc. that, as of April 11, 2006 and based on and subject to the factors, assumptions and limitations set forth therein, the merger consideration to be paid by Discovery Partners in the merger was fair to Discovery Partners from a financial point of view. The full text of Molecular Securities' written opinion, dated April 11, 2006, is attached to this joint proxy statement/prospectus as *Annex B*. You are encouraged to read this opinion carefully and in its entirety for a description of the assumptions made, procedures followed, matters considered and limitations on the review undertaken by Molecular Securities. Molecular Securities' opinion is addressed to the Discovery Partners board of directors and does not constitute any recommendation to any stockholder as to how any stockholder should vote at the Discovery Partners special meeting;

the fact that Discovery Partners' available cash, together with Infinity's other cash resources, are anticipated to be sufficient to meet Infinity's projected operating requirements through at least 2007 and to enable Infinity to reach its projected near-term milestones;

the possibility that the combined entity would be able to take advantage of the potential benefits resulting from the combination of Discovery Partners' more established public company infrastructure and the continued development of Infinity's product candidates,

including IPI-504 and its Hedgehog pathway inhibitors under development;

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

its understanding of negative trends in Discovery Partners' business, the expenses and fixed costs associated with Discovery Partners operations, Discovery Partners' cash on hand, its limited prospects in the drug discovery sector were it to continue to operate as a standalone entity, the positive scientific data and drug candidate pipeline in Infinity's business, Infinity's experienced management team, Infinity's need for financing to continue development of its product candidates, and the prospects for value creation for Discovery Partners' stockholders in connection with the merger;

the conclusion of the Discovery Partners board of directors that the Discovery Partners business was declining and unlikely to create enhanced stockholder value; and

the belief that the terms of the merger agreement, including the parties' representations, warranties and covenants, and the conditions to their respective obligations, are reasonable under the circumstances.

In addition to considering the strategic factors outlined above, the Discovery Partners board of directors considered the following factors in reaching its conclusion to approve the merger and to recommend that the Discovery Partners stockholders approve the issuance of shares of Discovery Partners common stock in the merger, all of which it viewed as generally supporting its decision to approve the business combination with Infinity:

Discovery Partners' strategic alternatives to the merger, including the discussions that Discovery Partners' management and Discovery Partners' board of directors had during the previous five months with other potential merger partners, and Discovery Partners' ability to continue to operate as a stand-alone company;

the opportunity for Discovery Partners' stockholders to participate in the long-term value of Infinity's product candidate development programs as a result of the merger;

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

the determination that the relative percentage ownership of Discovery Partners securityholders and Infinity securityholders is consistent with market practice for a merger of this type and captures the respective ownership interests of Discovery Partners and Infinity's securityholders in the combined company based on Discovery Partners' perceived valuations of each company at the time of the Discovery Partners 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 Discovery Partners' 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 Discovery Partners' obligation to consummate the merger;

the no solicitation provisions limiting Infinity's 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;

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

the voting agreements entered into by stockholders of Infinity representing approximately 47.9% of the outstanding capital stock and 48.19% of the outstanding preferred stock of Infinity as of April 30, 2006, pursuant to which those stockholders agreed, solely in their capacity as stockholders, to vote all of their shares of capital stock of Infinity in favor of adoption of the merger agreement; and

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the conclusion of Discovery Partners' board of directors that the \$6 million termination fee, and the circumstances when such fee may be payable, were reasonable;

the results of the due diligence review of Infinity's business and operations by Discovery Partners' management, financial advisors, outside consultants and legal advisors, whereby Infinity's product candidate pipeline and proprietary rights to its significant product candidates compared favorably to the due diligence results related to the other potential strategic transaction partners;

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

its assessments of the likelihood that Discovery Partners would be able to complete the sale or other disposition of part or all of its operating assets prior to the closing of the merger, and thereby reflect a net cash balance, as calculated pursuant to the merger agreement, at the closing of the merger of greater than or equal to \$70 million, such that Discovery Partners' current stockholders would not be diluted beyond an approximately 31% ownership of the combined company on a pro forma basis upon the closing of the merger;

its assessments of the likelihood that Discovery Partners would be able to complete the sale or other disposition of part or all of its operating assets prior to the closing of the merger, and thereby reflect a net cash balance, as calculated pursuant to the merger agreement, at the closing of the merger of at least \$60 million, and thereby ensure Infinity would not have the right to terminate the merger agreement as a result of that net cash balance; and

the likelihood of retaining key Infinity employees to help manage the combined company.

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

Risk of Termination of the Merger Agreement Due to Net Cash Balance. The risk that Infinity may terminate the merger agreement if Discovery Partners' net cash balance at closing, as calculated pursuant to the merger agreement, is less than \$60 million;

Termination Fee. The \$6 million termination fee payable to Infinity 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 Discovery Partners' stockholders;

Completion Risk. 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 any termination of the merger or the merger agreement on Discovery Partners' reputation;

Risk to Business. The risk to Discovery Partners' business, operations and financial results in the event that the merger is not consummated, including the impact that the public announcement of the merger could have on Discovery Partners' customer relationships;

Risks of Combination. The challenges and costs of combining certain limited administrative operations and the substantial expenses to be incurred in connection with the merger, including the risks that delays or difficulties in completing the limited administrative integration and such other expenses, as well as the additional public company expenses and obligations that Infinity will be subject to in connection with 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;

Volatility. The possible volatility, at least in the short term, of the trading price of Discovery Partners common stock resulting from the merger announcement and the closing of the merger;

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Possible Loss of Key Management. The possible earlier than anticipated loss of key management or other personnel of Discovery Partners as a result of the management and other changes that will be implemented in integrating the businesses;

Potential Management Diversion. The risk of diverting management's attention from other strategic priorities to implement the merger; and

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

The foregoing information and factors considered by Discovery Partners' board of directors are not intended to be exhaustive but are believed to include all of the material factors considered by Discovery Partners' 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, Discovery Partners' 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 Discovery Partners' board of directors may have given different weight to different factors. Discovery Partners' board of directors conducted an overall analysis of the factors described above, including thorough discussions with, and questioning of, Discovery Partners' management and Discovery Partners' legal and financial advisors and outside consultants, and considered the factors overall to be favorable to, and to support, its determination.

Infinity's Reasons for the Merger

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

the fact that Discovery Partners' available cash, together with Infinity's other cash resources, are anticipated to meet Infinity's projected operating requirements through 2007 and to enable Infinity to reach its projected near-term product development milestones, and that, with Discovery Partners' cash, Infinity would have greater flexibility with respect to its options for raising additional funds, whether through private or public equity offerings, partnerships with pharmaceutical companies, project financing, debt financing or other arrangements;

the relative certainty of amount (and attendant dilution to existing Infinity securityholders) and the timing of access to capital through the merger with Discovery Partners compared to other financing options considered, particularly an initial public offering and, with respect to an initial public offering, the following views of Infinity's board of directors regarding the advantages that the merger presented over an initial public offering:

that the amount of cash available to fund Infinity's future operations as a result of the merger, and the attendant dilution to Infinity's stockholders, would be determinable within a quantifiable range at the time the merger agreement was signed, whereas the amount of cash raised, and attendant dilution to Infinity's stockholders, in an initial public offering would not be known until the closing of the offering, the timing and outcome of which would be more uncertain and more unlikely;

that the barriers to Infinity's ability to consummate the merger with Discovery Partners, such as obtaining stockholder approval, are more quantifiable and less burdensome than the barriers to successfully completing an initial public offering, including the inability of life science companies to effect public offerings due to adverse trends in the capital markets such as existed at the time that Infinity signed the merger agreement with Discovery Partners; and

that the period of time required to negotiate a definitive merger agreement with Discovery Partners would be significantly shorter than the time required to organize, effect a registration statement for, and consummate an initial public offering.

the combination of Discovery Partners' status as an existing public company with Infinity's product candidate pipeline;

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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;

its understanding of Infinity's business, operations, financial condition and prospects, including Infinity's need for financing to continue development of its product candidates, and of Discovery Partners' cash on hand; and

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 Discovery Partners have a specified amount of net cash at closing, as calculated pursuant to the merger agreement, are reasonable under the circumstances.

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

Discovery Partners' attractiveness as a merger partner, including its:

substantial capital, particularly in light of Infinity's cash needs and current cash resources; and

status as a public company, which the Infinity board believed would facilitate potential access to public capital as well as stock liquidity;

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

the aggregate value to be received by Infinity 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 Discovery Partners securityholders and Infinity securityholders is consistent with market practice for a merger of this type and captures the respective ownership interests of Discovery Partners and Infinity securityholders in the combined company based on Infinity's perceived valuations of each company at the time of the Infinity board's 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 Infinity 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 Discovery Partners' obligation to consummate the merger;

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

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the conclusion of Infinity's board of directors that the \$6 million termination fee, and the circumstances when such fee may be payable, were reasonable;

the fact that shares of Discovery Partners common stock issued to Infinity stockholders will be registered on Form S-4 and will be freely tradable for Infinity stockholders who are not affiliates of Infinity 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.

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

Reputation. The risk that Infinity's decision to pursue the Discovery Partners transaction could be viewed as an acknowledgment that Infinity was not able to access public markets through an initial public offering and the potential negative impact on Infinity's reputation in the capital markets going forward;

Termination Fee. The \$6 million termination fee payable to Discovery Partners 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 Infinity stockholders;

Diversion of Resources. The risk of diverting management's attention from other strategic priorities to implement the merger, complete the sale or other disposition of Discovery Partners' operating assets and combine the companies and their operations and infrastructure following the merger;

Completion Risk. 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 Infinity's reputation and ability to obtain financing in the future in the event the merger is not completed;

Risks of Combination. The challenges and costs of combining certain limited administrative operations and the substantial expenses to be incurred in connection with the merger, including the risks that delays or difficulties in completing the limited administrative integration and such other expenses, as well as the additional public company expenses and obligations that Infinity 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

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

The foregoing information and factors considered by Infinity's board of directors are not intended to be exhaustive but are believed to include all of the material factors considered by Infinity'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, the Infinity 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 Infinity board of directors may have given different weight to different factors. The Infinity board of directors conducted an overall analysis of the factors described above, including thorough discussions with, and questioning of, Infinity's management and Infinity's legal and financial advisors, and considered the factors overall to be favorable to, and to support, its determination.

Opinion of Discovery Partners' Financial Advisor

Discovery Partners retained Molecular Securities to provide it with financial advisory services in connection with the merger and, if requested by Discovery Partners' board of directors, to render a fairness opinion. Molecular Securities was selected by Discovery Partners based on Molecular Securities' qualifications, expertise, reputation and its knowledge of the business and affairs of Discovery Partners. At the meeting of Discovery Partners' board of directors on April 11, 2006, Molecular Securities rendered its oral opinion, subsequently delivered in writing on April 11, 2006, that as of April 11, 2006, and based upon and subject to the assumptions and considerations set forth in its opinion, the merger consideration to be paid by Discovery Partners pursuant to the merger agreement was fair from a financial point of view to Discovery Partners.

The full text of Molecular Securities' opinion, dated April 11, 2006, which sets forth, among other things, the assumptions made, procedures followed, matters considered and limitations on the review undertaken by Molecular Securities, is attached as *Annex B* to this joint proxy statement/prospectus. Molecular Securities has

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consented to the inclusion of the opinion in this joint proxy statement/prospectus. We urge you to read Molecular Securities' opinion carefully and in its entirety. Molecular Securities delivered its opinion to the Discovery Partners board of directors in connection with such board's review of the proposed transaction, which opinion addresses only the fairness from a financial point of view of the merger consideration to be paid by Discovery Partners pursuant to the merger agreement as of April 11, 2006, and does not address any other aspect of the merger or constitute any recommendation to any Discovery Partners stockholder as to how to vote at the Discovery Partners special meeting. Further, Molecular Securities did not undertake to update, reaffirm or revise its opinion, and does not have any obligation to update, revise or reaffirm its opinion. This summary is qualified in its entirety by reference to the full text of the opinion.

In connection with rendering its opinion, Molecular Securities, among other things:

reviewed certain publicly available financial statements and other information of Discovery Partners;

reviewed certain internal financial statements, financial forecasts and other information concerning Infinity and Discovery Partners, prepared by the managements of Infinity and Discovery Partners, respectively, and concerning the pro forma combined company (including expected benefits of the merger, together with the associated expected costs), prepared by the managements of both Infinity and Discovery Partners;

discussed the past, current and forecasted financial position and results of operations and cash flows of Infinity and Discovery Partners, with senior executives of Infinity and Discovery Partners, respectively, and the current and forecasted financial position and results of operations and cash flows (including expected benefits of the merger, together with the associated expected costs) of the pro forma combined company, with senior executives of both Infinity and Discovery Partners;

reviewed the reported prices and trading activity for Discovery Partners' common stock, and the pricing of privately negotiated sales of Infinity Common Stock, Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock and Series D Preferred Stock, which we refer to collectively as Infinity Stock, issued to certain financial and strategic investors, as provided by the management of Infinity;

compared the financial performance of Infinity and Discovery Partners and the prices and trading activity of Discovery Partners' common stock and the prices of the Infinity Stock with that of certain other comparable publicly-traded companies and their securities, including the initial public offerings of common stock of certain other comparable companies;

reviewed the financial terms, to the extent publicly available, of certain comparable acquisition transactions;

participated in discussions and negotiations among representatives of Infinity and Discovery Partners and their legal advisors;

participated in discussions with Discovery Partners, and certain members of its board of directors, management, consultants, accountants and legal advisors in connection with their evaluation of the science, technology, products in development and other assets of Infinity, and reviewed certain reports prepared by L.E.K. Consulting LLC, Easton Associates, LLC, Ernst & Young LLP and Cooley Godward LLP, and presented by such consultants and legal advisors to the Discovery Partners' board of directors in connection with the merger, including their evaluation of Infinity's lead product candidate IPI-504, Infinity's second product candidate IPI-609, and certain Bcl-2 inhibitors which are the subject of a collaboration agreement involving Infinity and Novartis;

reviewed certain analyses prepared by management of Discovery Partners, and participated in discussions with management of Discovery Partners, regarding a potential liquidation of Discovery Partners;

reviewed the merger agreement and certain related documents; and

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reviewed such other information, conducted such other discussions with management of Infinity and Discovery Partners (respectively), performed such other analyses and considered such other factors as Molecular Securities deemed appropriate. For the purposes of its opinion, Molecular Securities assumed and relied upon without independent verification the accuracy and completeness of all the financial and other information reviewed by, or discussed with, Molecular Securities and, with respect to the internal financial forecasts, Molecular Securities assumed that they were reasonably prepared on bases reflecting the best currently available estimates and judgments of the future financial performance of Infinity, Discovery Partners and the pro forma combined company, respectively, including management's respective estimates and judgments in relation to the Discovery Partners liquidation scenarios and Infinity's science, technology, products in development and other assets, including those estimates and judgments of Discovery Partners' consultants, accountants and legal advisors. Molecular Securities has also relied without independent verification on the assessment by management of Discovery Partners regarding the potential liquidation analyses, scenarios and processes for Discovery Partners. Molecular Securities did not make any independent valuation or appraisal of the assets or liabilities of Infinity or Discovery Partners, nor was it furnished with any such appraisals.

Molecular Securities also assumed, for the purposes of its opinion, that the merger will be consummated in accordance with the terms set forth in the merger agreement, including, among other things, that the merger will be treated as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code of 1986 (as amended) and that, in connection with the receipt of all the necessary regulatory approvals for the proposed merger, no restrictions will be imposed or delays will result that would have a material adverse effect on the contemplated benefits expected to be derived in the proposed merger. Molecular Securities also assumed that Discovery Partners will have net cash (as that term is defined in the merger agreement) of at least \$60 million at the effective time of the merger.

Molecular Securities' opinion was necessarily based on the information made available to it, and the financial, economic, market and other conditions as they existed and could reasonably be evaluated, on April 11, 2006. In arriving at its opinion, Molecular Securities also took into account that, in connection with its engagement, it had approached third parties to solicit indications of interest in a possible acquisition or other business combination involving Discovery Partners and held preliminary discussions with certain of those parties prior to April 11, 2006. Molecular Securities' opinion, however, did not address the relative merits of the merger as compared to other business strategies or transactions that may be available to Discovery Partners, nor does it address the underlying business decision of Discovery Partners to engage in the merger. Furthermore, Molecular Securities' opinion did not in any manner address the prices at which the Discovery Partners common stock will trade following the announcement, nor the prices at which the pro forma combined company will trade following the consummation, of the merger. Molecular Securities expressed no opinion regarding (a) the liquidation value of Discovery Partners, (b) the financial viability of Discovery Partners if the merger does not close, or (c) the financial viability of Discovery Partners following the merger including: (i) the potential for, likelihood, or timing of, any commercialization of any product, (ii) the nature and extent of Discovery Partners' financing needs, or (iii) the ability of Discovery Partners to satisfy any such financing needs, following the merger.

The following is a brief summary of the material financial analyses performed by Molecular Securities in connection with its oral opinion and the preparation of its written opinion. Some of these summaries of financial analyses include information presented in tabular format. In order to fully understand the financial analyses used by Molecular 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.

Table of Contents**Merger Consideration**

Based upon the terms of the merger agreement, and information and assumptions provided by management of both Infinity and Discovery Partners, Molecular Securities presented illustrative examples of the number of shares of Discovery Partners common stock that may be issued, on a fully-diluted basis, to the holders of Infinity Stock, and the implied value of such shares that may be issued, as summarized in the table below:

Illustrative Merger Consideration to Infinity Shareholders							
DPI Net Cash¹ (in millions)	DPI Common Shares²	DPI Ownership³	Value Implied by Illustrative DPI Shares Prices				
			Current⁴	L2OD⁵	\$2.66⁶	\$3.00⁷	
\$60.0	73.8	73.0%	\$ 181.4	\$ 180.7	\$ 196.4	\$ 221.3	
69.0	64.1	70.2%	157.8	157.1	170.7	192.4	
70.0	61.0	69.1%	150.2	149.5	162.5	183.1	
75.0	61.0	69.1%	150.2	149.5	162.5	183.1	
76.0	58.2	68.1%	143.2	142.7	155.0	174.7	
85.0	52.1	65.7%	128.1	127.5	138.6	156.2	

- (1) Discovery Partners net cash as defined in the merger agreement
- (2) Discovery Partners common stock issued in accordance with the exchange ratios of Schedule I in the merger agreement to preferred and common Infinity stockholders including all dilutive securities (i.e., options and warrants). Assumes fully diluted Infinity shares equal 58.3 million comprised of: Series A 8.3 million, Series B-1 6.1 million, Series B-2 14.0 million, Series C 11.1 million, Series D 1.0 million, and Common 17.8 million
- (3) Assumes pre merger consideration fully diluted Discovery Partner shares of 27.2 million equal to 26.4 million common shares outstanding, 0.4 million from transaction and restructuring related common share grants, and 0.4 million options based on the treasury method assuming 1.3 million exercisable and outstanding options on June 15, 2006 with an exercise price less than or equal to \$6.00 per share and option proceeds of \$5.5 million
- (4) Discovery Partners closing share price of \$2.46 on April 7, 2006
- (5) Discovery Partners last 20 trading day average closing price of \$2.45 on April 7, 2006
- (6) For illustrative purposes, Molecular Securities noted the implied share price of Discovery Partners common stock (\$2.66), and subsequent implied value of merger consideration to Infinity stockholders, if the share price was equal to the net cash midpoint of the exchange ratio collar (\$72.5 million).
- (7) For illustrative purposes, Molecular Securities noted the implied share price of Discovery Partners common stock (\$3.00), and subsequent implied value of merger consideration to Infinity stockholders, if the share price was equal to the estimated cash, cash equivalents, short-term investments and restricted cash estimate for March 31, 2006 (\$81.7 million).

For illustrative reference purposes in connection with the analyses below, and derived from the table above assuming \$72.5 million net cash at closing, as calculated pursuant to the merger agreement, and the closing price per share for Discovery Partners common stock on April 7, 2006 of \$2.46, Molecular Securities noted that (a) approximately 61 million shares of Discovery Partners common stock would be issued to holders of Infinity Stock, representing a pro forma ownership interest in Discovery Partners common stock of 69%, approximately, and (b) the value of such shares that would be issued to holders of Infinity Stock implied a transaction equity value for Infinity of \$150 million. Assuming Infinity total debt of \$11 million and cash and cash equivalents of \$18 million at closing, a \$150 million transaction equity value represents a \$143 million transaction firm value. Firm value, as used herein, equals equity value plus total debt less cash and cash equivalents.

Table of Contents*Infinity Analysis**Private Financing Analysis*

Molecular Securities reviewed the prices of privately negotiated sales of Infinity Stock including the following:

Series	Date	Pre-Money Valuation (in millions)	Gross Proceeds (in millions)	Post-Money Valuation (in millions)	% Ownership (Fully Diluted)
Series A	August 2001	\$ 13	\$ 12	\$ 25	14%
Series B	August 2003	77	73	150	35%
Series C	December 2004	200	50	250	19%
Series D	February 2006	280	5	285	2%

The Series C Preferred Stock and Series D Preferred Stock financings were executed with strategic partners, Amgen, Johnson & Johnson and Novartis as part of broader alliances in conjunction with certain other contractual obligations. Molecular Securities noted that the implied equity value of Infinity of \$150 million based on the transaction was within the above range of pre-money equity valuations of \$13 million \$280 million.

Selected Comparable Company Initial Public Offerings Analysis

Molecular Securities compared certain financial information of Infinity with publicly available information for the following companies that completed initial public offerings of common stock from January 2004 to April 2006 and share certain characteristics (e.g., small molecule, discovery companies, with lead compounds in Phase I/Phase II clinical development) relating to the business and financial position of Infinity: ACADIA Pharmaceuticals, Inc., Anadys Pharmaceuticals, Inc., Memory Pharmaceuticals Corp., Metabasis Therapeutics, Inc., New River Pharmaceuticals, Inc.; and, with a particular focus on oncology, Avalon Pharmaceuticals, Inc., Cytokinetics, Incorporated, GTX, Inc., SGX Pharmaceuticals, Inc., Sunesis Pharmaceuticals, Inc., and Threshold Pharmaceuticals, Inc.

For each such precedent company that completed an initial public offering, Molecular Securities calculated the pre-money equity and firm valuation as follows (oncology companies in bold):

Company	Pre-Money IPO Valuation	
	Equity ¹	Firm ²
GTX Inc.	\$ 278	\$ 275
Anadys Pharmaceuticals Inc.	106	98
Memory Pharmaceuticals Corp.	101	69
Cytokinetics Inc.	259	225
Acadia Pharmaceuticals Inc.	83	61
Metabasis Therapeutics Inc.	90	86
New River Pharmaceuticals Inc.	108	194
Threshold Pharmaceuticals Inc.	167	127
Sunesis Pharmaceuticals Inc.	108	72
Avalon Pharmaceuticals, Inc.	59	59
SGX Pharmaceuticals Inc.	61	53

1) IPO price per share multiplied by pre-IPO common shares outstanding

2) Equity value plus pre-IPO total debt less pre-IPO cash, cash equivalents and short-term investments

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	Implied Value of Infinity	Oncology Comparable Company Values		
		Low	Median	High
Equity Value	\$ 150	\$ 59	\$ 138	\$ 278
(in millions)				
Firm Value	143	53	100	275
(in millions)				

	Implied Value of Infinity	Other Comparable Company Values		
		Low	Median	High
Equity Value	\$ 150	\$ 83	\$ 101	\$ 108
(in millions)				
Firm Value	143	61	86	194
(in millions)				

Molecular Securities noted that each of the implied transaction equity value for Infinity of \$150 million and the implied transaction firm value for Infinity of \$143 million was (a) based upon such comparable oncology companies, within the range of equity valuations of \$59 \$278 million and the range of firm valuations of \$53 \$275 million, and (b) based on the other selected comparable companies, within or above the range of equity valuations of \$83 \$108 million and the range of firm valuations of \$61 \$194 million.

No company included by Molecular Securities in the initial public offering, or IPO, analysis is identical to Infinity.

Selected Comparable Company Trading Analysis

Molecular Securities compared certain financial information of Infinity with publicly available information for the following selected companies with businesses that share certain characteristics (e.g., early, clinical stage oncology drug development programs) relating to the business and financial position of Infinity: Adventrx Pharmaceuticals, Inc., Allos Therapeutics, Inc., ARIAD Pharmaceuticals, Inc., Arqule, Inc., Avalon Pharmaceuticals, Inc., Biocryst Pharmaceuticals, Inc., Cytokinetics, Incorporated, Entremed, Inc., Kosan Biosciences Incorporated, OXiGENE, Inc., SGX Pharmaceuticals, Inc., Sunesis Pharmaceuticals, Inc., Threshold Pharmaceuticals, Inc., and Vion Pharmaceuticals, Inc.

For each such comparable company, Molecular Securities calculated the equity and firm value as of the close of trading on April 7, 2006 as follows:

Company	Market Value	
	(in millions)	
	Equity ¹	Firm ²
BioCryst Pharmaceuticals Inc.	\$ 582	\$ 522
Threshold Pharmaceuticals Inc.	561	461
Ariad Pharmaceuticals Inc.	382	308
Adventrx Pharmaceuticals Inc.	378	355
Cytokinetics Inc.	273	201
Sunesis Pharmaceuticals Inc.	223	177
ArQule Inc.	226	86
Allos Therapeutics Inc.	182	158
EntreMed Inc.	152	125
Kosan Biosciences Inc.	169	117
Vion Pharmaceuticals Inc.	146	93
Oxigene Inc.	129	70
SGX Pharmaceuticals Inc.	128	173

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- 1) Closing price per share multiplied by shares outstanding as of April 7, 2006
 - 2) Equity value plus total debt less cash, cash equivalents and short-term investments as of April 7, 2006

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	Implied Value of Infinity	Comparable Company Values		
		Low	Median	High
Equity Value	\$ 150	\$ 48	\$ 203	\$ 582
(in millions)				
Firm Value	143	31	165	522

(in millions)

Molecular Securities noted that each of the implied transaction equity value for Infinity of \$150 million and the implied transaction firm value for Infinity of \$143 million was within the applicable range of such comparable company trading values.

No company included by Molecular Securities in the comparable company analysis is identical to Infinity.

Selected Precedent Transaction Analysis

Molecular Securities compared certain financial information of Infinity with publicly available information for the acquired companies in the following selected reverse merger transactions (acquired company/acquiror) announced in the period January 2004 to April 2006 and involving companies that share certain characteristics relating to the business and financial position of Infinity: CancerVax Corporation/Micromet US, Inc., Corgentech Inc./AlgoRx Pharmaceuticals, Inc., Epimmune Inc./IDM Pharma, Inc., V.I. Technologies Inc./Panacos Pharmaceuticals, Inc., Xcyte Therapies, Inc./Cyclacel Group plc.

For each such precedent transaction, Molecular Securities calculated the equity value and firm value of the acquired company and pro forma ownership percentage of the acquiror as of the transaction date as follows:

Public Company	Private Company	Transaction Value	
		Equity ¹	Firm ²
V.I. Technologies Inc. ⁽³⁾	Panacos Pharma, Inc. ⁽³⁾	\$ 27	\$ 19
V.I. Technologies Inc. ⁽⁴⁾	Panacos Pharma, Inc. ⁽⁴⁾	164	155
Epimmune Inc.	IDM Pharma, Inc.	99	61
Corgentech Inc.	AlgoRx Pharma, Inc.	135	113
Xcyte Therapies Inc.	Cyclacel Group plc	27	8
CancerVax Corp.	Micromet AG	82	79

- 1) Transaction equity value equals shares issued to private company multiplied by the average closing price per share of the public company common stock for the 20 trading days ending one day before the merger announcement date. Prices adjusted for reverse stock splits as appropriate.
- 2) Transaction firm value equals equity value plus total debt less cash, cash equivalents and short-term investments as of merger announcement date.
- 3) Reflects initial merger agreement announced June 3, 2004.
- 4) Reflects final amended merger agreement announced November 29, 2004.

	Implied Value of Infinity	Comparable Transaction Values		
		Low	Median	High
Equity Value	\$ 150	\$ 27	\$ 90	\$ 164
(in millions)				
Firm Value	143	8	70	155

(in millions)

Pro forma Ownership	69%	62%	73%	80%
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Molecular Securities noted that each of the implied transaction equity value for Infinity of \$150 million, implied transaction firm value for Infinity of \$143 million, and pro forma ownership percentage of Infinity stockholders in Discovery Partners of 69% were within the applicable range of such precedent transaction values and pro forma ownership interests.

No company or transaction included by Molecular Securities in the analysis of selected precedent transactions is identical to Infinity or the transaction.

Discovery Partners Analysis***Share Price Performance***

Molecular Securities reviewed ranges of closing prices of shares of Discovery Partners common stock for various periods ending on April 7, 2006 as follows:

	Low	Average	High
April 7, 2006		\$ 2.46	
Last 20 Trading Days	\$ 2.42	\$ 2.45	\$ 2.47
Last 3 Months	2.36	2.46	2.71
Since Nov. 29, 2005 ¹	2.31	2.46	2.71
Last 6 Months	2.31	2.57	3.20
Last 12 Months	2.31	2.83	3.45

(1) Discovery Partners publicly announced that the contract with Pfizer would not be renewed on November 29, 2005. Molecular Securities noted a range in closing prices per share between \$2.31 and \$3.45.

Discounted Cash Flow Analysis

Molecular Securities did not perform a Discounted Cash Flow, or DCF, analysis since, by the time of its financial analysis in connection with its opinion, Discovery Partners had determined, with input from external consulting firm L.E.K. Consulting LLC, that providing contract research was no longer a viable stand-alone business for Discovery Partners. As a consequence, management provided a financial budget for 2006 only for the purpose of managing the operations and cash flow of Discovery Partners in contemplation of a transaction such as the merger with Infinity; management did not provide a long-term financial plan of an ongoing business for Discovery Partners that may otherwise have formed the basis of a DCF analysis. Indeed, with the consent of Discovery Partners board and management, Molecular Securities assumed that, in the absence of a transaction such as that contemplated with Infinity, Discovery Partners would be liquidated (see below).

Liquidation Analysis

Molecular Securities reviewed certain analyses, prepared by Discovery Partners management, regarding a potential liquidation of Discovery Partners. Molecular Securities reviewed management's estimates of Discovery Partners' net assets to estimate the potential net cash proceeds available upon liquidation of Discovery Partners' assets in San Diego, South San Francisco, Basel, Switzerland and Heidelberg, Germany. The estimate was based upon the analyses of Discovery Partners management and internal Discovery Partners management projections of balance sheet liquidation value, severance payments, lease buyouts and remediation and other commitments and contingencies as of June 30, 2006. Molecular Securities noted that based on such projections, the range of net cash proceeds available for distribution was between \$59.2 million and \$77.5 million.

Table of Contents**Exchange Ratio Analysis**

Molecular Securities reviewed ranges of exchange ratios (expressed in terms of Discovery Partners' common stock ownership interest) derived from the implied equity value of Discovery Partners and Infinity stock, respectively, based upon the analyses above. The implied equity value of Discovery Partners was based on the range of stock market equity values for Discovery Partners since the public announcement that the contract with Pfizer would not be renewed on November 29, 2005 and liquidation values estimated by Discovery Partners' management and described in the Discovery Partners section above, as well as the net cash amounts of \$70.75 million which bound the exchange ratio collar in the merger agreement. The implied value of Infinity was based on the private financing, IPO and trading analyses, described in the Infinity section above. Molecular Securities observed the following:

	Illustrative Pro Forma Ownership Percentage of Infinity Stockholders in DPI											
	Low				Median				High			
	DPI Value (in millions)	Financing	IPO	Trading	DPI Value	Financing	IPO	Trading	DPI Value	Financing	IPO	Trading
	\$77	\$59	\$48	\$73	\$200	\$106	\$203	\$75	\$280	\$278	\$582	
Merger Collar	\$ 70	52%	46%	41%	\$ 73	73%	59%	74%	\$ 75	79%	79%	89%
Market Value	\$ 63	55%	48%	43%	\$ 69	74%	61%	75%	\$ 74	79%	79%	89%
Liquidation	\$ 59	57%	50%	45%	\$ 69	74%	61%	75%	\$ 78	78%	78%	88%

Molecular Securities noted that the pro forma ownership percentage of Infinity stockholders in Discovery Partners of 69% was within the range of ownership interests implied by the exchange ratios observed.

Other

In connection with the review of the transaction by Discovery Partners' board of directors, Molecular Securities performed a variety of financial and comparative analyses for purposes of rendering its opinion. The preparation of a fairness opinion is a complex process and is not necessarily susceptible to a partial analysis or summary description. In arriving at its opinion, Molecular Securities considered the results of all of its analyses as a whole and did not attribute any particular weight to any analysis or factor it considered. Molecular Securities believes that selecting any portion of its analyses, without considering all analyses as a whole, would create an incomplete view of the process underlying its analyses and opinion. In addition, Molecular Securities may have given various analyses and factors more or less weight than other analyses and factors, and may have deemed various assumptions more or less probable than other assumptions. As a result, the ranges of valuations resulting from any particular analysis described above should not be taken to be Molecular Securities' view of the actual value of Discovery Partners or Infinity. In performing its analyses, Molecular Securities also made assumptions with respect to financial, economic, market and other conditions to the effect that there would be no material adverse change in the financial condition or prospects of Discovery Partners or Infinity, or in the cost of capital, expected returns, valuation benchmarks or investor sentiment generally in relation to companies such as Discovery Partners or Infinity. Any estimates contained in Molecular Securities' analyses are not necessarily indicative of future results or actual values, which may be significantly more or less favorable than those suggested by such estimates.

Molecular Securities conducted the analyses described above solely as part of its analysis of the fairness of the merger consideration pursuant to the merger agreement from a financial point of view to Discovery Partners and in connection with the delivery of its opinion dated April 11, 2006 to Discovery Partners' board of directors. These analyses do not purport to be appraisals or to reflect the prices at which shares of common stock of Discovery Partners, Infinity or the pro forma combined company might actually trade.

The merger consideration to be paid by Discovery Partners pursuant to the merger agreement was determined through arm's length negotiations between Discovery Partners and Infinity and was approved by

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Discovery Partners board of directors. Molecular Securities assisted Discovery Partners in these negotiations. Molecular Securities did not, however, recommend any specific merger consideration to Discovery Partners or its board of directors or that any specific merger consideration constituted the only appropriate consideration for the transaction, nor did Molecular Securities review the relative merits of the merger as compared to other business strategies or transactions that may be available to Discovery Partners, including a possible liquidation of Discovery Partners.

In addition, Molecular Securities opinion and its presentation to Discovery Partners board of directors was one of many factors taken into consideration by Discovery Partners board of directors in deciding to approve the merger. Consequently, the analyses as described above should not be viewed as determinative of the opinion of Discovery Partners board of directors with respect to the merger consideration or of whether Discovery Partners board of directors would have been willing to agree to different merger consideration or to pursue other business strategies or transactions, including a possible liquidation.

Molecular Securities is an investment bank which engages in the valuation of businesses and securities in connection with mergers and acquisitions. Pursuant to an engagement letter, Discovery Partners formally engaged Molecular Securities to provide financial advisory services in connection with the merger and, if requested by Discovery Partners board of directors, to render a fairness opinion. Pursuant to the engagement letter, Molecular Securities was paid an initial fee of \$150,000 following the execution of the engagement letter. Following the execution of the merger agreement, an additional fee of approximately \$800,000, which is equal to 25% of the transaction fee plus certain expenses measured as of the date of the merger agreement, was paid to Molecular Securities. Pursuant to the terms of the engagement letter, if the merger is completed, Molecular Securities will be entitled to receive an additional fee equal to 2% of the sum of (i) the value, measured at the closing, of the Discovery Partners common stock to be issued to Infinity securityholders in exchange for their Infinity securities (including securities which would be outstanding upon exercise of any in-the-money options, convertible debt, convertible preferred stock and warrants) pursuant to the merger agreement and (ii) the value of any debt, capital lease, and preferred stock obligations assumed, retired or defeased in connection with the merger. As of June 29, 2006, the fee payable to Molecular Securities that is contingent upon the closing of the merger would be equal to approximately \$2.65 million plus certain expenses, which represents the transaction fee payable upon the closing of \$3.6 million (based on a value of Discovery Partners common stock of approximately \$159 million (61 million shares at \$2.60 per share) and \$21 million of Infinity debt) plus certain expenses less the approximately \$950,000 that Discovery Partners paid Molecular Securities following the execution of the engagement letter and the execution of the merger agreement. As set forth in the engagement letter, Discovery Partners has agreed to reimburse Molecular Securities for its attorneys fees incurred in connection with the engagement. Pursuant to an indemnity agreement, Discovery Partners has agreed to indemnify Molecular Securities and its affiliates, their respective directors, officers, agents and employees and each other person, if any, controlling Molecular Securities or any of its affiliates against certain liabilities, including any liabilities under the federal securities laws relating to or arising out of its engagement and any related transactions, and to reimburse the parties covered by the indemnity agreement for certain expenses incurred in connection with claims of liability.

Interests of Discovery Partners Directors and Executive Officers in the Merger

In considering the recommendation of the Discovery Partners board of directors with respect to issuing shares of Discovery Partners common stock as contemplated by the merger agreement and the other matters to be acted upon by Discovery Partners stockholders at the Discovery Partners special meeting, Discovery Partners stockholders should be aware that certain members of the board of directors and executive officers of Discovery Partners have interests in the merger that may be different from, or in addition to, the interests of Discovery Partners stockholders. Each of the Discovery Partners and Infinity boards 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 Discovery Partners and Infinity proposals, as applicable, contemplated by this joint proxy statement/prospectus to be presented to their stockholders for consideration at their respective special meetings.

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Ownership Interests

As of April 30, 2006, all directors and executive officers of Discovery Partners, together with their affiliates, beneficially owned approximately 3.5% of the shares of Discovery Partners common stock. The affirmative vote of the holders of a majority of the Discovery Partners common stock having voting power present in person or represented by proxy at the Discovery Partners special meeting is required for approval of Discovery Partners Proposal Nos. 1, 5 and 6. The affirmative vote of holders of a majority of the Discovery Partners common stock having voting power outstanding on the record date for the Discovery Partners special meeting is required for approval of Discovery Partners Proposal Nos. 2 and 3. The affirmative vote of holders of 66 2/3% of the Discovery Partners common stock having voting power outstanding on the record date for the Discovery Partners special meeting is required for approval of Discovery Partners Proposal No. 4. Certain Discovery Partners 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 *Agreements Related to the Merger Voting Agreements* on page 108 of this joint proxy statement/prospectus.

Change in Control Agreements

Between July 2003 and April 2005, Discovery Partners entered into change in control agreements with each of its executive officers. Under the terms of these agreements, in the event of both a change in control and the termination of an executive officer's employment by Discovery Partners without cause or by the executive officer for good reason, as such terms are defined in the change in control agreements, either before, and in connection with, the change in control or within 365 days after the change in control, the executive officer will be entitled to a severance payment equal to (a) the executive officer's average annual bonus for the three prior full calendar years of employment with Discovery Partners, or such lesser number of full calendar years during which such executive was employed by Discovery Partners, multiplied by the number of days in the calendar year through the date of termination divided by 365 and (b) the greater of 100% of (i) the executive officer's annual base salary in effect immediately prior to the change in control or (ii) the executive officer's annual salary in effect at time of the notice of termination. In addition, for purposes of determining the vesting of the executive officer's awards granted under Discovery Partners' 2000 Stock Incentive Plan, as well as any unvested shares acquired pursuant to that plan, the executive officer will be treated as if he had completed an additional year of service immediately prior to the date on which his employment is terminated.

For purposes of the change in control agreements, a change in control is deemed to have occurred under any of the following circumstances, subject to certain exceptions and limitations:

any person becomes the beneficial owner, directly or indirectly, of securities representing 15% or more of the combined voting power of Discovery Partners' then-outstanding securities;

the current members of the board of directors, including any new board members elected by a 2/3 vote approval of those board members and any new board members so approved, cease to represent a majority of the board during any period of 24 months or less;

the stockholders approve a merger or consolidation involving Discovery Partners, other than a merger or consolidation in which, immediately after completion of the merger or consolidation, (i) the holders of Discovery Partners' voting stock prior to the transaction continue to own more than 66 2/3% of the combined voting power of Discovery Partners or the surviving entity and (ii) no person owns 15% or more of the combined voting power of the then-outstanding securities of Discovery Partners or the surviving entity;

the stockholders approve a plan of complete liquidation of Discovery Partners or an agreement for the sale or disposition by Discovery Partners of all or substantially all of its assets; or

the board of directors adopt a resolution to the effect that, for purposes of the change in control agreement, a change in control has occurred.

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The change in control agreements automatically renew on an annual basis unless either party gives notice by September 30th of the preceding year and no change of control has occurred during the 18 months before that notice. The completion of the merger is considered a change in control event and Discovery Partners anticipates that it will pay a total of approximately \$1.9 million to its executive officers and that stock options to purchase approximately 25,000 shares of Discovery Partners common stock, with exercise prices ranging from \$2.95 to \$4.20 per share, and 23,000 shares of restricted stock held by those officers will accelerate in connection with the closing of the merger pursuant to these agreements.

The cash costs of any payments made in connection with the change in control agreements described above will be deducted from Discovery Partners' net cash, as calculated pursuant to the merger agreement, at the closing of the merger.

Retention and Severance Plans

On March 30, 2006, Discovery Partners adopted a retention and severance plan pursuant to which certain key employees, including certain key executive officers, other than the Acting Chief Executive Officer, will be entitled to receive a retention bonus consisting of a cash amount based on the employee's employment level, up to \$25,000, with amounts earned by individual key employees upon achievement of employee-specific milestones, such as completion of the sale of Discovery Partners' operating assets or completion of the merger or as otherwise determined by Discovery Partners' management for key employees or the compensation committee of Discovery Partners' board of directors for key executive officers as long as the employee remains employed with Discovery Partners through the earlier of a change in control or December 31, 2006. If the employee's employment with Discovery Partners is terminated without cause by Discovery Partners, or its successor in a change in control, on or prior to December 31, 2006, Discovery Partners will pay to such employee the total cash amount of the retention bonus upon the date of such termination. The plan also provides certain executive officers with severance payments equal to six months of their base salary plus COBRA coverage and three months of outplacement services in the event of a change in control that is not covered under such officer's change in control agreement as discussed above.

On April 19, 2006, Discovery Partners approved an executive retention and severance agreement with Michael Venuti, acting Chief Executive Officer of Discovery Partners, under which he will be entitled to receive a retention bonus consisting of a cash amount of up to \$25,000, with amounts earned upon achievement of specific milestones, such as completion of the sale of Discovery Partners' operating assets and completion of the merger, or as otherwise determined by the compensation committee of Discovery Partners' board of directors, as long as he remains employed with Discovery Partners through the earlier of a change in control or December 31, 2006. If Dr. Venuti's employment with Discovery Partners is terminated without cause by Discovery Partners, or its successor in a change in control, on or prior to December 31, 2006, Discovery Partners will pay to Dr. Venuti the total cash amount of the retention bonus upon the date of such termination. The agreement also provides severance payments equal to six months of Dr. Venuti's base salary plus COBRA coverage and three months of outplacement services in the event of a change in control that is not covered under Dr. Venuti's change in control agreement as discussed above.

In addition, both the plan of March 30, 2006, and the agreement with Dr. Venuti, of April 19, 2006, contemplate the acceleration in full of the vesting of restricted stock awards granted to certain executive officers and key employees upon the earlier to occur of a change in control event involving Discovery Partners or, in the event a change of control does not occur, December 31, 2006. The completion of the merger is intended to be a change in control event for these purposes and will result in the accelerated vesting of approximately 440,250 shares of restricted stock for certain executive officers and key employees of Discovery Partners. The following table sets forth the number of shares of restricted stock granted to each current executive officer that will accelerate upon the effective time of the merger, as long as the executive officer remains employed with Discovery Partners on such date.

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Name	Number of Shares of Restricted Stock
Daniel Harvey	22,000
Craig Kussman	58,750
Douglas Livingston	25,000
Richard Neale	46,250
Michael Venuti	200,000

A total of 29 key employees received a retention and severance plan, including the following key executive officers: Daniel Harvey, Craig Kussman, Douglas Livingston, Richard Neale and Michael Venuti. Discovery Partners anticipates that it will pay a total of approximately \$750,000 to key employees, including certain key executive officers, in connection with the closing of the merger pursuant to the retention and severance plans described above. The cash costs of these payments will be deducted from Discovery Partners' net cash, as calculated pursuant to the merger agreement, at the closing of the merger.

Discovery Partners 2000 Stock Incentive Plan

The terms of Discovery Partners' 2000 Stock Incentive Plan provide that upon the occurrence of certain corporate transactions, which would include a transaction such as the merger, the vesting of each outstanding option held by Discovery Partners' non-employee directors under the provisions of that plan relating to option grants to non-employee directors would accelerate so that each such option would become fully exercisable immediately prior to the effective date of the corporate transaction. The table below sets forth the number of options held by each non-employee director of Discovery Partners that will accelerate upon the effective date of the merger, which options have exercise prices ranging from \$2.50 to \$5.93 per share. Messrs. Hixson and Rosenman, who will be continuing as directors of Discovery Partners following the closing of the merger, will have until one year following the termination of their board service with the combined company to exercise these options. Messrs. Lewis and Dollery, who will resign as of the effective time of the merger, will have until three years following the termination of their board service with Discovery Partners to exercise these options.

Name	Number of Options
Alan Lewis	10,000
Colin Dollery	10,000
Harry Hixson, Jr.	35,000
Herm Rosenman	27,500

In addition to the above, Messrs. Lewis and Dollery have been granted the full amount of fees they would be entitled to receive for service on Discovery Partners' board of directors had they served on the board through the end of the third quarter of 2006.

Indemnification of 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 Discovery Partners 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 Discovery Partners. 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 will contain provisions no less favorable with respect to indemnification of present and former directors and officers of Discovery Partners than are presently set forth in the certificate of incorporation and bylaws of Discovery Partners.

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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 Discovery Partners, with coverage in amount and scope at least as favorable as the coverage under Discovery Partners' 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 Discovery Partners 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 Infinity's Directors and Executive Officers in the Merger

In considering the recommendation of the Infinity board of directors with respect to adopting the merger agreement, Infinity stockholders should be aware that certain members of the board of directors and executive officers of Infinity have interests in the merger that may be different from, or in addition to, interests they may have as Infinity stockholders. Each of the Discovery Partners and Infinity boards of directors were 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 Discovery Partners and Infinity proposals, as applicable, contemplated by this joint proxy statement/prospectus to be presented to their stockholders for consideration at their respective special meetings.

Ownership Interests

As of April 30, 2006, all directors and executive officers of Infinity, together with their affiliates, beneficially owned approximately 38.8% of the shares of Infinity capital stock. Infinity cannot complete the merger unless the merger agreement is adopted by the affirmative vote of the holders of (a) a majority of the shares of Infinity common stock and Infinity preferred stock outstanding on the record date and entitled to vote at the Infinity special meeting, voting together as a single class and on an as-converted basis, and (b) a majority of the shares of Infinity preferred stock outstanding on the record date and entitled to vote at the Infinity special meeting, voting separately as a single class and on an as-converted basis. Certain Infinity 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 "Agreements Related to the Merger - Voting Agreements" on page 108 of this joint proxy statement/prospectus.

Discovery Partners' Board of Directors After the Merger

The merger agreement provides that, if Discovery Partners Proposal No. 4 to this joint proxy statement/prospectus is approved by Discovery Partners' stockholders, Discovery Partners bylaws will be amended to increase the maximum number of directors that may constitute the entire board of directors of Discovery Partners from 10 directors to 12 directors and the board of directors of Discovery Partners as of the effective time of the merger will be as follows:

Class I: Eric Lander, Franklin Moss, Herm Rosenman and James Tananbaum;

Class II: D. Ronald Daniel, Arnold Levine, Patrick Lee and Michael Venuti; and

Class III: Anthony Evnin, Harry Hixson, Steven Holtzman and Vicki Sato.

In such case, of the 12 members of the board of directors of Discovery Partners as of the effective time of the merger, nine directors will have served as members of the board of directors of Infinity prior to the effective time of the merger and three directors will have served as members of the board of directors of Discovery Partners prior to the effective time of the merger.

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If Discovery Partners Proposal No. 4 to this joint proxy statement/prospectus is not approved by Discovery Partners' stockholders, Discovery Partners will fix the maximum number of members of its board of directors at 10 and the board of directors of Discovery Partners as of the effective time of the merger will be as follows:

Class I: Arnold Levine, Herm Rosenman and James Tananbaum;

Class II: D. Ronald Daniel, Patrick Lee and Michael Venuti; and

Class III: Anthony Evnin, Steven Holtzman, Harry Hixson and Vicki Sato.

In such case, of the 10 members of the board of directors of Discovery Partners as of the effective time of the merger, seven directors will have served as members of the board of directors of Infinity prior to the effective time of the merger and three directors will have served as members of the board of directors of Discovery Partners prior to the effective time of the merger.

In either case, Harry Hixson, Michael Venuti and Herm Rosenman will continue in their positions on the board of directors of Discovery Partners and each will serve as a Class III, Class II and Class I director, respectively, and Colin Dollery and Alan Lewis will resign as of the effective time of the merger.

Stock Options

Under the terms of the merger agreement, at the effective time of the merger, each outstanding and unexercised option to purchase shares of Infinity common stock, whether vested or unvested, will be assumed by Discovery Partners and will become an option to acquire, on the same terms and conditions as were applicable under the stock option agreement by which such option is evidenced and the stock option plan under which such option was issued, if any, an option to purchase shares of Discovery Partners common stock. The number of shares of Discovery Partners common stock subject to each assumed option will be determined by multiplying the number of shares of Infinity common stock that was subject to each option prior to the effective time of the merger by an exchange ratio determined pursuant to the merger agreement, and rounding that result down to the nearest whole number of shares of Discovery Partners common stock. The per share exercise price for the assumed options will be determined by dividing the per share exercise price of the Infinity 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. The actual exchange ratio is determined in accordance with the merger agreement by reference to Discovery Partners' net cash balance, as calculated pursuant to the merger agreement, at the consummation of the merger. The items that will constitute Discovery Partners' net cash balance at the closing of the merger are subject to many factors, many of which are outside of Discovery Partners' control. For a more detailed discussion of the calculation of Discovery Partners' net cash at the closing of the merger, see The Merger Agreement Merger Consideration and Adjustment on page 95 of this joint proxy statement/prospectus. Assuming that Discovery Partners' net cash balance at the closing of the merger is greater than or equal to \$70 million and less than or equal to \$75 million, the common stock exchange ratio will be 0.95118, subject to adjustment to account for the reverse stock split.

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The table below sets forth, as of April 30, 2006, information with respect to options held by each of Infinity's current executive officers and directors.

Name	Total Options Held	Vested	Unvested	Weighted Average Exercise Price Per Share
Executive Officers:				
Steven Holtzman	401,500	93,083	308,417	\$0.57
Julian Adams	621,711	145,746	475,965	\$0.52
Adelene Perkins	101,500	6,625	94,875	\$0.77
Directors(1):				
D. Ronald Daniel				
Anthony Evnin				
Richard Klausner(2)	10,000	10,000		\$0.45
Eric Lander(3)				
Patrick Lee				
Arnold Levine				
Franklin Moss(3)				
Philip Needleman(2)				
Vicki Sato	35,000	17,292	17,708	\$0.45
James Tananbaum				

(1) Steven Holtzman, an executive officer of Infinity, is also a director of Infinity.

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

(3) Such director will only serve on the board of directors of the combined company following the merger if Discovery Partners Proposal No. 4 is approved.

Debt Forgiveness

In anticipation of the transactions contemplated by the merger and the merger agreement, in March 2006, the Infinity board of directors authorized Infinity to forgive the outstanding indebtedness of certain executive officers to the company, including, in the case of Dr. Adams, certain indebtedness transferred to his former spouse. In connection with the forgiveness, such executive officers entered into letter agreements with Infinity, pursuant to which each executive officer agreed to subject certain shares of common stock held by such executive officer to a right of repurchase in favor of Infinity for a period of two years. Upon the consummation of the merger, all outstanding shares of Infinity common stock will automatically be converted into the right to receive shares of Discovery Partners common stock and the corresponding repurchase rights will be in favor of Discovery Partners. The following is a list of such executive officers, the amounts forgiven and the number of shares subjected to a right of repurchase:

Name	Total Amount of Principal and Interest Due Forgiven	Number of Shares Subject to Repurchase For a Period of Two Years
Steven Holtzman	\$ 364,874.24	66,500
Julian Adams	\$ 311,239.79	56,500
Adelene Perkins	\$ 81,153.91	14,750

Indemnification of Officers and Directors

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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 Infinity against all claims, losses, liabilities, damages, judgments, fines and reasonable fees, costs and expenses, including attorneys' fees and disbursements, incurred in connection with any

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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 Infinity. 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 will contain provisions no less favorable with respect to indemnification of present and former directors and officers of Infinity than are presently set forth in the certificate of incorporation and bylaws of Infinity.

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 Infinity, with coverage in amount and scope at least as favorable as the coverage under Infinity'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 Infinity 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

Infinity has granted options to purchase shares of its common stock under its 2001 Stock Incentive Plan and 2003 California Only Stock Incentive Plan. Infinity has also granted options outside of its plans. Each outstanding option to purchase shares of Infinity common stock that is not exercised prior to the effective time of the merger will be assumed by Discovery Partners at the effective time of the merger in accordance with the terms of the stock option plan, if any, under which such option was issued and the terms of the stock option agreement by which such option is evidenced and will become an option to purchase shares of Discovery Partners common stock. The number of shares of Discovery Partners common stock subject to each assumed option will be determined by multiplying the number of shares of Infinity common stock that was subject to each option prior to the effective time of the merger by an exchange ratio determined pursuant to the merger agreement, and rounding that result down to the nearest whole number of shares of Discovery Partners' common stock. The per share exercise price for the assumed options will be determined by dividing the per share exercise price of the Infinity 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. The actual exchange ratio is determined in accordance with the merger agreement by reference to Discovery Partners' net cash balance, as calculated pursuant to the merger agreement, at the consummation of the merger. The items that will constitute Discovery Partners' net cash balance at the closing of the merger are subject to many factors, many of which are outside of Discovery Partners' control. For a more detailed discussion of the calculation of Discovery Partners' net cash at the closing of the merger, see "The Merger Agreement Merger Consideration and Adjustment" on page 95 of this joint proxy statement/prospectus. Assuming that Discovery Partners' net cash balance at the closing of the merger is greater than or equal to \$70 million and less than or equal to \$75 million, the common stock exchange ratio will be 0.95118, subject to adjustment to account for the reverse stock split. In such case, the options to purchase an aggregate of 5,297,826 shares of Infinity common stock that were outstanding as of April 30, 2006 would become options to purchase an aggregate of 5,039,186 shares of Discovery Partners common stock at the effective time of the merger. Such options, which were exercisable at prices per share ranging from \$0.38 to \$0.77 as of April 30, 2006, would become exercisable at prices per share ranging from \$0.40 to \$0.81 at the effective time of the merger.

Infinity has issued warrants to purchase shares of its Series A preferred stock and Series B preferred stock. Each outstanding warrant to purchase shares of Infinity Series A preferred stock and Series B preferred stock will be assumed by Discovery Partners at the effective time of the merger in accordance with its terms and will become a warrant to purchase shares of Discovery Partners common stock. The number of shares of Discovery Partners common stock subject to each assumed warrant will be determined by multiplying the number of shares of Infinity preferred stock that was subject to each warrant prior to the effective time of the merger by an exchange ratio determined pursuant to the merger agreement, and rounding that result down to the nearest whole number of shares of Discovery Partners common stock. The per share exercise price for the assumed warrants will be determined by dividing the per share exercise price of the Infinity preferred stock subject to each warrant as in effect immediately

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prior to the effective time of the merger by the exchange ratio and rounding that result up to the nearest whole cent. The actual exchange ratio is determined in accordance with the merger agreement by reference to Discovery Partners' net cash balance, as calculated pursuant to the merger agreement, at the consummation of the merger. The items that will constitute Discovery Partners' net cash balance at the closing of the merger are subject to many factors, many of which are outside of Discovery Partners' control. For a more detailed discussion of the calculation of Discovery Partners' net cash at the closing of the merger, see The Merger Agreement Merger Consideration and Adjustment on page 95 of this joint proxy statement/prospectus. Assuming that Discovery Partners' net cash balance at the closing of the merger is greater than or equal to \$70 million and less than or equal to \$75 million, the Series A preferred stock exchange ratio for warrant holders will be 0.84509 and the Series B preferred stock exchange ratio for warrant holders will be 1.20900, subject, in each case, to adjustment to account for the reverse stock split. In such case, the warrants to purchase an aggregate of 133,333 shares of Infinity Series A preferred stock that were outstanding as of April 30, 2006 would become warrants to purchase an aggregate of 112,676 shares of Discovery Partners common stock at the effective time of the merger. Such Series A preferred stock warrants, which were exercisable at a price per share of \$1.50 as of April 30, 2006, would become exercisable at a price per share of \$1.78. In addition, in such case, the warrants to purchase an aggregate of 646,997 shares of Infinity Series B preferred stock that were outstanding as of April 30, 2006 would become warrants to purchase an aggregate of 782,206 shares of Discovery Partners common stock at the effective time of the merger. Such Series B preferred stock warrants, which were exercisable at a price per share of \$3.75 as of April 30, 2006, would become exercisable at a price per share of \$3.11.

Discovery Partners has granted options to purchase shares of its common stock under its 2000 Stock Incentive Plan and 2000 Employee Stock Purchase Plan. Each outstanding option to purchase shares of Discovery Partners common stock that is not exercised prior to the effective time of the merger will be assumed by Discovery Partners at the effective time of the merger in accordance with the terms of the plan under which such option was issued and the terms of the stock option agreement by which such option is evidenced.

Form of the Merger

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

After completion of the merger, assuming Discovery Partners Proposal No. 3 is approved by Discovery Partners stockholders at the Discovery Partners special meeting, Discovery Partners will be renamed Infinity Pharmaceuticals, Inc. and expects to trade on the NASDAQ Global Market following the closing of the merger under the symbol INFI.

Merger Consideration

At the effective time of the merger, all shares of Infinity capital stock outstanding immediately prior to the effective time of the merger will automatically be converted into the right to receive shares of Discovery Partners common stock. In addition, at the effective time of the merger, all options to purchase shares of Infinity common stock outstanding and unexercised immediately prior to the effective time of the merger will be assumed by Discovery Partners and will become options to purchase shares of Discovery Partners common stock and all warrants to purchase shares of Infinity preferred stock outstanding and unexercised immediately prior to the effective time of the merger will be assumed by Discovery Partners and will become warrants to purchase shares of Discovery Partners common stock. Infinity stockholders, together with the holders of options and warrants to purchase shares of capital stock of Infinity, will be entitled to receive shares of Discovery Partners common stock and options and warrants to purchase shares of Discovery Partners common stock equal to approximately 69% of the fully-diluted shares of the combined company as of immediately following the consummation of the merger. This percentage assumes:

the exercise of all outstanding Infinity options and warrants,

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the vesting of shares of Discovery Partners restricted common stock and the exercise of Discovery Partners options exercisable on or before June 15, 2006 with an exercise price equal to or less than \$6.00 per share, calculated using the treasury method,

that the amount of Infinity options and warrants does not change between the date hereof and the closing of the merger, and

that Discovery Partners' net cash balance, as calculated pursuant to the merger agreement, at the closing of the merger is greater than or equal to \$70 million and less than or equal to \$75 million.

There will be no adjustment to the total number of shares of Discovery Partners common stock. Infinity securityholders will be entitled to receive for changes in the market price of Discovery Partners common stock. While the merger agreement includes a condition to closing that Discovery Partners have net cash of at least \$60 million at closing, as calculated pursuant to the merger agreement, the merger agreement does not include a price-based termination right. Accordingly, the market value of the shares of Discovery Partners common stock issued in connection with the merger will depend on the market value of the shares of Discovery Partners common stock at the time of effectiveness of the merger, and could vary significantly from the market value on the date of this joint proxy statement/prospectus.

The number of shares of Discovery Partners common that stockholders of Infinity capital stock will be entitled to receive in exchange for all shares of Infinity capital stock at the consummation of the merger will be allocated among:

Holder of Infinity common stock; and

Holder of Infinity preferred stock.

Each share of Infinity common stock and Infinity preferred stock will be converted into the right to receive a number of shares of Discovery Partners common stock equal to an exchange ratio applicable to each class, series and tranche of Infinity capital stock.

If the net cash of Discovery Partners at the closing of the merger, as calculated pursuant to the merger agreement, is greater than or equal to \$70 million and less than or equal to \$75 million, the exchange ratios will be as follows, subject, in each case, to adjustment to account for the reverse stock split:

The exchange ratio for Infinity common stock will be 0.95118;

The exchange ratio for Infinity Series A preferred stock will be 0.84509;

The exchange ratio for Infinity Series B preferred stock held by Prospect Venture Partners and Venrock Associates and their affiliates will be 1.07472;

The exchange ratio for Infinity Series B preferred stock held by all other holders of Series B preferred stock other than Prospect Venture Partners and Venrock Associates and their affiliates will be 1.20900;

The exchange ratio for Infinity Series C preferred stock will be 1.12126; and

The exchange ratio for Infinity Series D preferred stock will be 1.14607.

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If the net cash of Discovery Partners at the closing of the merger is less than \$70 million or more than \$75 million, as calculated pursuant to the merger agreement, the exchange ratios will be determined in accordance with the merger agreement.

Discovery Partners' net cash balance at the closing of the merger 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 the closing and determined in a manner substantially consistent with the manner in which each such item was determined for Discovery Partners' then most recent consolidated balance sheets filed with the SEC, plus the

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contingent receivable due to Discovery Partners under Discovery Partners' agreement with the NIH, minus Discovery Partners' accounts payable and accrued expenses, contractual obligations, restructuring accruals, change in control payments, severance payments and certain other similar payments arising as a result of merger, unpaid taxes and payments to its advisors in connection with the merger. For a more detailed description of the calculation of Discovery Partners' net cash balance at the closing of the merger, see "The Merger Agreement - Merger Consideration and Adjustment" on page 95 of this joint proxy statement/prospectus.

The items that will constitute Discovery Partners' net cash balance at the closing of the merger are subject to many factors, many of which are outside of Discovery Partners' control. For a more detailed discussion of the different exchange ratios at different net cash balances of Discovery Partners at the closing of the merger for the different classes, series and tranches of Infinity capital stock, see "The Merger Agreement - Merger Consideration and Adjustment" on page 95 of this joint proxy statement/prospectus. If Discovery Partners' net cash at closing is below \$60 million, based on the manner of calculating net cash pursuant to the merger agreement, Discovery Partners would be unable to satisfy a closing condition for the merger, and Infinity could elect to terminate the merger agreement or Infinity could elect to proceed with the merger at exchange ratios adjusted upward to reflect the lower net cash at closing.

Each option to purchase shares of Infinity common stock that is outstanding and unexercised immediately prior to the effective time of the merger will be assumed by Discovery Partners and will become an option to purchase shares of Discovery Partners common stock. From and after the effective time of the merger, the number of shares of Discovery Partners common stock subject to each option so assumed will be determined by multiplying the number of shares of Infinity common stock that were subject to such option immediately prior to the effective time of the merger by the exchange ratio for Infinity common stock and rounding the resulting number down to the nearest whole number of shares of Discovery Partners common stock. The per share exercise price for the Discovery Partners common stock issuable upon exercise of each such option will be determined by dividing the effective per share exercise price for the Infinity common stock subject to such option immediately prior to the effective time of the merger by the exchange ratio for Infinity common stock and rounding the resulting exercise price up to the nearest whole cent.

If the net cash of Discovery Partners at the closing of the merger, as calculated pursuant to the merger agreement, is greater than or equal to \$70 million and less than or equal to \$75 million, the exchange ratio for Infinity common stock will be 0.95118, subject to adjustment to account for the reverse stock split. If the net cash of Discovery Partners at the closing of the merger is less than \$70 million or more than \$75 million, as calculated pursuant to the merger agreement, the exchange ratio for Infinity common stock will be determined in accordance with the merger agreement, subject to adjustment to account for the reverse stock split. For a more detailed discussion of the calculation of Discovery Partners' net cash at the closing of the merger, see "The Merger Agreement - Merger Consideration and Adjustment" on page 95 of this joint proxy statement/prospectus.

Each warrant to purchase shares of Infinity preferred stock that is outstanding and unexercised immediately prior to the effective time of the merger will be assumed by Discovery Partners and will become a warrant to purchase shares of Discovery Partners common stock. From and after the effective time of the merger, the number of shares of Discovery Partners common stock subject to each warrant so assumed will be determined by multiplying the number of shares of Infinity preferred stock that were subject to such warrant immediately prior to the effective time of the merger by the relevant exchange ratio and rounding the resulting number down to the nearest whole number of shares of Discovery Partners common stock. The per share exercise price for the Discovery Partners common stock issuable upon exercise of each such warrant will be determined by dividing the effective per share exercise price for the Infinity preferred stock subject to such warrant immediately prior to the effective time of the merger by the relevant exchange ratio and rounding the resulting exercise price up to the nearest whole cent.

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If the net cash of Discovery Partners at the closing of the merger, as calculated pursuant to the merger agreement, is greater than or equal to \$70 million and less than or equal to \$75 million, the exchange ratios will be as follows, subject, in each case, to adjustment to account for the reverse stock split:

The exchange ratio for warrants to purchase shares of Infinity Series A preferred stock will be 0.84509; and

The exchange ratio for warrants to purchase shares of Infinity Series B preferred stock will be 1.20900.

If the net cash of Discovery Partners at the closing of the merger is less than \$70 million or more than \$75 million, as calculated pursuant to the merger agreement, the exchange ratios will be determined in accordance with the merger agreement, subject to adjustment to account for the reverse stock split.

No fractional shares of Discovery Partners common stock will be issued in connection with the merger. Instead, each Infinity stockholder who would otherwise be entitled to receive a fraction of a share of Discovery Partners common stock, after aggregating all fractional shares of Discovery Partners 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 Discovery Partners common stock as quoted on the NASDAQ Global Market on the date the merger becomes effective.

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

The merger agreement provides that, promptly, but in no event more than five business days, after the effective time of the merger, the exchange agent will mail to each record holder of Infinity common stock and Infinity 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 Infinity stock certificates. Upon surrender of an Infinity common stock certificate or an Infinity 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 Discovery Partners may reasonably require, the holder of the Infinity stock certificate will be entitled to receive the following:

a certificate representing the number of whole shares of Discovery Partners 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 Discovery Partners common stock; and

dividends or other distributions, if any, to which they are entitled under the terms of the merger agreement.

The Infinity stock certificate surrendered will be cancelled.

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

If any Infinity stock certificate has been lost, stolen or destroyed, Discovery Partners may, in its discretion, and as a condition to the delivery of any shares of Discovery Partners 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 Discovery Partners against any claim suffered by Discovery Partners related to the lost, stolen or destroyed certificate or any Discovery Partners common stock issued in exchange for such certificate as Discovery Partners may reasonably request.

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From and after the effective time of the merger, until it is surrendered, each certificate that previously evidenced Infinity common stock or Infinity preferred stock will be deemed to represent only the right to receive shares of Discovery Partners common stock and cash in lieu of any fractional share of Discovery Partners common stock. Discovery Partners will not pay dividends or other distributions on any shares of Discovery Partners common stock to be issued in exchange for any unsurrendered Infinity stock certificate until the Infinity 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 Infinity and the approval of the issuance of shares of Discovery Partners common stock pursuant to the merger by the stockholders of Discovery Partners. 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 Discovery Partners and Infinity and specified in the certificate of merger. However, neither Discovery Partners nor Infinity can predict the exact timing of the consummation of the merger.

Regulatory Approvals

As of the date of this joint proxy statement/prospectus, neither Discovery Partners nor Infinity 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, Discovery Partners must comply with applicable federal and state securities laws and the rules and regulations of the NASDAQ Global Market in connection with the issuance of shares of Discovery Partners common stock pursuant to the merger and the filing of this joint proxy statement/prospectus with the SEC.

Material United States Federal Income Tax Consequences of the Merger

The following discussion summarizes the material United States federal income tax considerations of the merger that are expected to apply generally to Infinity stockholders upon an exchange of their Infinity common or preferred stock for Discovery Partners common stock in the merger. This summary is based upon current provisions of the Internal Revenue Code of 1986, as amended, or 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 Infinity 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.

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Any Infinity 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 Infinity 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 Infinity common or preferred stock, you should consult your tax advisor.

This summary assumes that Infinity stockholders hold their shares of Infinity 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, employees of Infinity who will become employees of Discovery Partners, 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;

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; or

who do not hold their shares as capital assets.

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 Infinity shares are acquired or Discovery Partners shares are disposed of;

tax consequences of the receipt of Discovery Partners shares other than in exchange for Infinity shares; or

tax implications of a failure of the merger to qualify as a reorganization.

Accordingly, holders of Infinity 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.

As a condition to the consummation of the merger, Cooley Godward LLP and Wilmer Cutler Pickering Hale and Dorr LLP must render tax opinions that the merger will constitute a reorganization within the meaning of Section 368 of the Code, which we refer to as a reorganization. The tax opinions discussed in this section are conditioned upon certain assumptions stated in the tax opinions and are based on the truth and accuracy, as of the completion of the merger, of certain representations and other statements made by Discovery Partners and Infinity in certificates delivered to counsel. If any such representations and other statements made in such certificates are inaccurate, or by the consummation of the merger become inaccurate, then the tax opinions may no longer be valid.

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No ruling from the Internal Revenue Service, or IRS, has been or will be requested in connection with the merger. In addition, stockholders of Infinity 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.

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Subject to the assumptions and limitations discussed above, it is the opinion of Cooley Godward LLP, tax counsel to Discovery Partners, and Wilmer Cutler Pickering Hale and Dorr LLP, tax counsel to Infinity, that the merger will be treated for United States federal income tax purposes as a reorganization. Accordingly, the following material United States federal income tax consequences will result:

Discovery Partners, merger sub and Infinity will not recognize any gain or loss solely as a result of the merger;

stockholders of Infinity will not recognize any gain or loss upon the receipt of solely Discovery Partners common stock for their Infinity common or preferred stock, other than with respect to cash received in lieu of fractional shares of Discovery Partners common stock;

the aggregate tax basis of the shares of Discovery Partners common stock received by an Infinity stockholder in the merger (including any fractional share deemed received) will be equal to the aggregate tax basis of the shares of Infinity common and preferred stock surrendered in exchange therefor;

the holding period of the shares of Discovery Partners common stock received by an Infinity stockholder in the merger will include the holding period of the shares of Infinity common and preferred stock surrendered in exchange therefor;

generally, cash payments received by Infinity stockholders in lieu of fractional shares will be treated as if such fractional shares of Discovery Partners common stock were issued in the merger and then sold. A stockholder of Infinity 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; and

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 Infinity common or preferred stock and Discovery Partners common stock, stockholders who acquired different blocks of Infinity common or preferred stock and Discovery Partners 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 exchanged, converted, cancelled, or received in the merger.

Infinity 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 Infinity common or preferred stock and a description of the Discovery Partners common stock received.

The above discussion does not apply to Infinity stockholders who properly perfect appraisal rights. Generally, an Infinity stockholder who perfects appraisal rights with respect to such stockholder's shares of Infinity common or preferred stock will recognize capital gain or loss equal to the difference between such stockholder's tax basis in such shares and the amount of cash received in exchange for such shares.

Certain noncorporate Infinity 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 an Infinity stockholder who (1) furnishes a correct taxpayer identification number and certifies that the Infinity 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 an Infinity stockholder does not provide a correct taxpayer identification number on IRS Form W-9 or a substantially similar form, the Infinity stockholder may be subject to penalties imposed by the IRS. Amounts

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withheld, if any, are generally not an additional tax and may be refunded or credited against the Infinity stockholder's federal income tax liability, provided that the Infinity stockholder 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. INFINITY 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 Global Market Listing

Discovery Partners common stock currently is listed on the NASDAQ Global Market under the symbol *DPII*. Discovery Partners has agreed to use reasonable efforts to obtain approval for listing on the NASDAQ Global Market of the shares of Discovery Partners common stock that Infinity securityholders will be entitled to receive pursuant to the merger.

Discovery Partners has filed an initial listing application with the NASDAQ Global Market pursuant to NASDAQ's reverse merger rules. If such application is accepted, Discovery Partners anticipates that its common stock will be listed on the NASDAQ Global Market following the closing of the merger under the trading symbol *INFI*.

Anticipated Accounting Treatment

The merger will be treated by Discovery Partners as a reverse merger under the purchase method of accounting in accordance with U.S. generally accepted accounting principles. For accounting purposes, Infinity is considered to be acquiring Discovery Partners in this transaction. Therefore, the aggregate consideration paid in connection with the merger, together with the direct costs of acquisition, will be allocated to Discovery Partners' tangible and intangible assets and liabilities based on their fair market values. The assets and liabilities and results of operations of Discovery Partners will be consolidated into the results of operations of Infinity 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, Infinity 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 an Infinity 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 Infinity 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 Infinity 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 Infinity capital stock are to the record holder or holders of shares of Infinity capital stock. Except as set forth herein, stockholders of Infinity will not be entitled to appraisal rights in connection with the merger.

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Under Section 262, where a merger is to be submitted for approval at a meeting of stockholders, such as the Infinity special meeting, not less 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 Infinity 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 Infinity 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 Infinity 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 Infinity 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 Infinity at 780 Memorial Drive, Cambridge, Massachusetts 02139, Attention: Adelene Perkins.

Within ten days after the effective time of the merger, Infinity must provide notice of the effective time of the merger to all Infinity 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 Infinity 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 Infinity in the case of a petition filed by a stockholder, demanding a determination of the fair value of the shares of all dissenting stockholders. There is no present intent on the part of Infinity to file an appraisal petition and stockholders seeking to exercise appraisal rights should not assume that Infinity will file such a petition or that Infinity will initiate any negotiations with respect to the fair value of such shares. Accordingly, holders of Infinity 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 Infinity a statement setting forth the aggregate number of shares of Infinity common stock and Infinity preferred stock not voting in favor of the adoption of the merger agreement and with respect to which demands for appraisal were received by Infinity and

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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 Infinity 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 Infinity, Infinity will then be obligated, within 20 days after service, to file with 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 Infinity 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 Infinity 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, Infinity 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 Infinity 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 Infinity as the Delaware Court deems equitable in 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 Infinity. 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 Infinity 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 Infinity 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 Infinity 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 Infinity 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 Infinity stockholder considering exercising these rights should consult with legal counsel.

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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 Discovery Partners, Infinity 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.

General

Under the merger agreement, merger sub, a wholly owned subsidiary of Discovery Partners formed by Discovery Partners in connection with the merger, will merge with and into Infinity. After completion of the merger, Infinity will be a wholly owned subsidiary of Discovery Partners, which will operate thereafter under the name Infinity Pharmaceuticals, Inc. Pursuant to the merger agreement, subject to certain factors described below, Infinity securityholders will be entitled to receive shares of, and options and warrants to purchase shares of, Discovery Partners common stock equal in the aggregate to approximately 69% of the fully-diluted shares of the combined company, with existing Discovery Partners securityholders holding or being entitled to receive the remaining 31% of the fully-diluted shares of the combined company. 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 Infinity and Discovery Partners agree. However, because the merger is subject to a number of conditions, neither Discovery Partners nor Infinity can predict exactly when the closing will occur or if it will occur at all.

Merger Consideration and Adjustment

As a result of the merger, Infinity stockholders, together with the holders of options and warrants to purchase shares of capital stock of Infinity, will be entitled to receive shares of Discovery Partners common stock and options and warrants to purchase shares of Discovery Partners common stock equal to approximately 69% of the shares of the fully-diluted shares of the combined company. This percentage assumes:

the exercise of all outstanding Infinity options and warrants,

the vesting of shares of Discovery Partners restricted common stock and the exercise of Discovery Partners options exercisable on or before June 15, 2006 with an exercise price equal to or less than \$6.00 per share, calculated using the treasury method,

that the amount of Infinity options and warrants does not change between the date hereof and the closing of the merger, and

that Discovery Partners net cash balance, as calculated pursuant to the merger agreement, at the closing of the merger is greater than or equal to \$70 million and less than or equal to \$75 million.

The items that will constitute Discovery Partners net cash balance at the closing of the merger are subject to many factors, many of which are outside of Discovery Partners control. Assuming that Discovery Partners net cash balance is greater than or equal to \$70 million and less than or equal to \$75 million at the closing of the merger, the exchange ratios for the different classes, series and tranches of Infinity capital stock will be as follows, subject, in each case, to adjustment to account for the reverse stock split: (i) each share of Infinity common stock will entitle the holder to receive 0.95118 shares of Discovery Partners common stock; (ii) each share of Infinity Series A preferred stock will entitle the holder to receive 0.84509 shares of Discovery Partners common stock; (iii) each share of Infinity Series B preferred stock held by Prospect Ventures Partners and Venrock Associates and their respective affiliates will entitle the holder to receive 1.07472 shares of Discovery Partners common stock; (iv) each share of Infinity Series B preferred stock held by stockholders other than Prospect Ventures Partners and Venrock Associates and their respective affiliates will entitle the holder to receive 1.20900 shares of Discovery Partners common stock; (v) each share of Infinity Series C preferred stock will entitle the holder to receive 1.12126 shares of Discovery Partners common stock; and (vi) each share of

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Infinity Series D preferred stock will entitle the holder to receive 1.14607 shares of Discovery Partners common stock. Infinity encourages its stockholders to obtain current market quotations of Discovery Partners common stock.

The merger agreement provides that the exchange ratios for Infinity's capital stock are subject to upward and downward adjustment based on Discovery Partners' net cash balance, as calculated pursuant to the merger agreement, at the closing of the merger. Discovery Partners' net cash balance at the closing of the merger 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 the closing and determined in a manner substantially consistent with the manner in which each such item was determined for Discovery Partners' then most recent consolidated balance sheets filed with the SEC, plus the contingent receivable due to Discovery Partners under Discovery Partners' agreement with the NIH, minus Discovery Partners' 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, unpaid taxes and payments to its advisors in connection with the merger. The items listed above that will constitute Discovery Partners' net cash balance at the closing of the merger are subject to many factors, many of which are outside of Discovery Partners' control. If Discovery Partners' net cash at closing is below \$60 million, based on the manner of calculating net cash pursuant to the merger agreement, Discovery Partners would be unable to satisfy a closing condition for the merger, and Infinity could elect to terminate the merger agreement or Infinity could elect to proceed with the merger at the exchange ratios outlined in the table below for Discovery Partners' net cash at closing below \$60 million.

If the net cash balance of Discovery Partners at the closing of the merger is not greater than or equal to \$70 million and less than or equal to \$75 million, then the exchange ratio for each class, series and tranche of Infinity capital stock will be as set forth in the following table, depending on the net cash balance of Discovery Partners at the closing of the merger.

Discovery Partners Net Cash At Closing As Calculated Pursuant to the Merger Agreement (in millions) (1)	Series A Preferred Stock Holders	Group 1 Series B Preferred Stock Holders (2)	Group 2 Series B Preferred Stock Holders (3)	Series C Preferred Stock Holders	Series D Preferred Stock Holders	Common Stock Holders
40	1.53172	1.94794	2.19131	2.03228	2.07724	1.72401
41	1.49436	1.90043	2.13786	1.98271	2.02658	1.68196
42	1.45878	1.85518	2.08696	1.93550	1.97833	1.64191
43	1.42485	1.81204	2.03843	1.89049	1.93232	1.60373
44	1.39247	1.77085	1.99210	1.84752	1.88840	1.56728
45	1.36153	1.73150	1.94783	1.80647	1.84644	1.53245
46	1.33193	1.69386	1.90548	1.76720	1.80630	1.49914
47	1.30359	1.65782	1.86494	1.72960	1.76787	1.46724
48	1.27643	1.62328	1.82609	1.69356	1.73104	1.43667
49	1.25038	1.59015	1.78882	1.65900	1.69571	1.40735
50	1.22537	1.55835	1.75305	1.62582	1.66179	1.37921
51	1.20135	1.52779	1.71867	1.59394	1.62921	1.35216
52	1.17824	1.49841	1.68562	1.56329	1.59788	1.32616
53	1.15601	1.47014	1.65382	1.53379	1.56773	1.30114
54	1.13461	1.44292	1.62319	1.50539	1.53870	1.27704
55	1.11398	1.41668	1.59368	1.47802	1.51072	1.25383
56	1.09408	1.39138	1.56522	1.45163	1.48375	1.23144
57	1.07489	1.36697	1.53776	1.42616	1.45771	1.20983
58	1.05636	1.34341	1.51125	1.40157	1.43258	1.18897
59	1.03845	1.32064	1.48563	1.37781	1.40830	1.16882
60	1.02115	1.29863	1.46087	1.35485	1.38483	1.14934
61	1.00441	1.27734	1.43692	1.33264	1.36213	1.13050

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Discovery Partners Net Cash At Closing As Calculated Pursuant to the Merger Agreement (in millions) (1)	Series A Preferred Stock Holders	Group 1 Series B Preferred Stock Holders (2)	Group 2 Series B Preferred Stock Holders (3)	Series C Preferred Stock Holders	Series D Preferred Stock Holders	Common Stock Holders
62	0.98821	1.25673	1.41375	1.31115	1.34016	1.11226
63	0.97252	1.23679	1.39131	1.29033	1.31888	1.09461
64	0.95732	1.21746	1.36957	1.27017	1.29828	1.07751
65	0.94260	1.19873	1.34850	1.25063	1.27830	1.06093
66	0.92831	1.18057	1.32806	1.23168	1.25894	1.04485
67	0.91446	1.16295	1.30824	1.21330	1.24015	1.02926
68	0.90101	1.14585	1.28900	1.19546	1.22191	1.01412
69	0.88795	1.12924	1.27032	1.17813	1.20420	0.99943
76	0.80617	1.02523	1.15332	1.06962	1.09329	0.90737
77	0.79570	1.01192	1.13834	1.05573	1.07909	0.89559
78	0.78550	0.99894	1.12375	1.04219	1.06525	0.88411
79	0.77555	0.98630	1.10952	1.02900	1.05177	0.87292
80	0.76586	0.97397	1.09565	1.01614	1.03862	0.86200
81	0.75640	0.96194	1.08213	1.00359	1.02580	0.85136
82	0.74718	0.95021	1.06893	0.99135	1.01329	0.84098
83	0.73818	0.93877	1.05605	0.97941	1.00108	0.83085
84	0.72939	0.92759	1.04348	0.96775	0.98916	0.82096
85	0.72081	0.91668	1.03120	0.95637	0.97753	0.81130
86	0.71243	0.90602	1.01921	0.94524	0.96616	0.80186
87	0.70424	0.89560	1.00750	0.93438	0.95505	0.79265
88	0.69624	0.88543	0.99605	0.92376	0.94420	0.78364
89	0.68841	0.87548	0.98486	0.91338	0.93359	0.77484
90	0.68076	0.86575	0.97391	0.90323	0.92322	0.76623
91	0.67328	0.85624	0.96321	0.89331	0.91307	0.75781
92	0.66596	0.84693	0.95274	0.88360	0.90315	0.74957
93	0.65880	0.83782	0.94250	0.87410	0.89344	0.74151
94	0.65179	0.82891	0.93247	0.86480	0.88393	0.73362
95	0.64493	0.82018	0.92266	0.85570	0.87463	0.72590
96	0.63822	0.81164	0.91304	0.84678	0.86552	0.71834
97	0.63164	0.80327	0.90363	0.83805	0.85660	0.71093
98	0.62519	0.79508	0.89441	0.82950	0.84785	0.70368
99	0.61888	0.78705	0.88538	0.82112	0.83929	0.69657
100	0.61269	0.77918	0.87652	0.81291	0.83090	0.68960

- (1) For purposes of determining the applicable exchange ratios above, net cash will be calculated in accordance with the merger agreement and rounded to the nearest million.
- (2) Group 1 Series B preferred stockholders of Infinity consist of Venrock Associates, Prospect Venture Partners and their respective affiliates.
- (3) Group 2 Series B preferred stockholders of Infinity consist of all Series B preferred stockholders other than Venrock Associates, Prospect Venture Partners and their respective affiliates.

Amendment to Discovery Partners Certificate of Incorporation

The merger agreement provides that Discovery Partners stockholders must approve, as a condition to closing the merger, the amendment to Discovery Partners certificate of incorporation effecting a reverse stock split of Discovery Partners common stock, which requires the affirmative vote of holders of a majority of the outstanding common stock on the Discovery Partners record date for the Discovery Partners special meeting. Upon the effectiveness of the split amendment, the issued shares of Discovery Partners common stock

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immediately prior to the split effective time will be reclassified into a smaller number of shares such that a Discovery Partners stockholder will own one new share of Discovery Partners common stock for each 2 to 6 shares of issued common stock held by that stockholder immediately prior to the split effective time. The exact split ratio within the 2:1 to 6:1 range will be determined by the Discovery Partners board of directors prior to the split effective time and will be publicly announced by Discovery Partners.

Stockholders of record of Discovery Partners common stock on the record date for the Discovery Partners special meeting will be also be asked to approve the amendment to Discovery Partners certificate of incorporation to change the name of the corporation from Discovery Partners International, Inc. to Infinity Pharmaceuticals, Inc. upon consummation of the merger.

Amendment to Discovery Partners Bylaws

The merger agreement provides that the Discovery Partners board of directors will also recommend that the Discovery Partners stockholders approve an amendment to Discovery Partners bylaws to increase the maximum number of directors that may constitute the entire board of directors of Discovery Partners to 12. The proposed amendment to Discovery Partners bylaws is not a condition to the closing of the merger, and if it is not approved by the Discovery Partners stockholders, then the composition of the Discovery Partners board of directors following the merger will be adjusted according to the merger agreement.

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 Infinity must adopt the merger agreement, and stockholders of Discovery Partners must approve the issuance of Discovery Partners common stock pursuant to the merger and the amendment to Discovery Partners certificate of incorporation effecting the reverse stock split;

any governmental authorization or other consent required to be obtained by any of the parties to the merger agreement under any applicable antitrust or competition law or regulation or other legal requirement shall have been obtained and shall remain in full force and effect;

the existing shares of Discovery Partners common stock shall have been continually listed on the NASDAQ Global Market, and Discovery Partners shall have caused the shares of Discovery Partners common stock Infinity securityholders will be entitled to receive pursuant to the merger to be approved for listing on the NASDAQ Global Stock Market following the closing of the merger; and

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 shall have expired or been terminated, and there shall 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

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consummate the merger for any period of time.

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 being 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

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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 having 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 having delivered the documents required under the merger agreement for the closing of the merger, including third party consents, good standing certificates, and certificates from certain of its officers.

In addition, the obligation of Discovery Partners and the merger sub to complete the merger is further subject to the satisfaction or waiver of the following conditions:

Discovery Partners shall have received lock-up agreements from the following: Advent Management III Limited Partnership, Advent Private Equity Fund III A , Advent Private Equity Fund III B , Advent Private Equity Fund III C , Advent Private Equity Fund III D , Advent Private Equity Fund III Affiliates, Advent Private Equity Fund III GmbH Co. KG, Prospect Venture Partners II, L.P., Prospect Venture Partners, L.P., Venrock Associates, Venrock Associates III, L.P., Venrock Entrepreneurs Fund III, L.P., HBM BioVentures (Cayman) Ltd., Vulcan Ventures, Inc., Eric Lander, Stuart Schreiber, James B. Tananbaum and Dana Shonfeld Tananbaum Family Trust, Steven Holtzman, Julian Adams, Adelene Perkins, Jeffrey Tong and David Grayzel; and

Discovery Partners shall have received the opinion of Cooley Godward LLP or Wilmer Cutler Pickering Hale and Dorr LLP to the effect that the merger will be treated for federal income tax purposes as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended, which is referred to herein as the Code.

In addition, the obligation of Infinity to complete the merger is further subject to the satisfaction or waiver of the following conditions:

Discovery Partners shall have at least \$60 million in net cash at closing, as calculated pursuant to the merger agreement;

the amendment to Discovery Partners certificate of incorporation effecting the reverse stock split shall have become effective under the DGCL; and

Infinity shall have received the opinion of Wilmer Cutler Pickering Hale and Dorr LLP or Cooley Godward LLP to the effect that the merger will be treated for federal income tax purposes as a reorganization within the meaning of Section 368(a) of Code.

No Solicitation

Each of Infinity and Discovery Partners agreed that, except as described below, Infinity and Discovery Partners and any of their respective subsidiaries will not, nor will either party authorize or permit any of the officers, directors, investment bankers, attorneys or accountants retained by it or any of its subsidiaries, 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 below, or inquiry, indication of interest or request for information that could reasonably be expected to lead to an acquisition proposal;

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furnish to any person any information with respect to it in connection with or in response to an acquisition proposal or inquiry, indication of interest or request for information that could reasonably be expected to lead to an acquisition proposal;

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engage in discussions or negotiations with respect to any acquisition proposal or inquiry, indication of interest or request for information that could reasonably be expected to lead to an acquisition proposal;

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, other than with respect to the potential sale by Discovery Partners of its operating assets.

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 Infinity, Discovery Partners 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 Infinity, Discovery Partners or merger sub or any of their subsidiaries or (3) in which Infinity, Discovery Partners 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 Infinity, Discovery Partners or merger sub and their subsidiaries, taken as a whole; and

any liquidation or dissolution of Infinity or merger sub.

However, before obtaining the applicable Infinity or Discovery Partners 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 superior offer, as defined below, or a bona fide, unsolicited written acquisition proposal made or received after the date of the merger agreement that is reasonably likely to result in a superior offer that is submitted to that party 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 three 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 Infinity and Discovery Partners; and

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at least three 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

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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 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, unless the board of directors of the applicable party determines in good faith that any required financing is 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.

The merger agreement contemplates that Discovery Partners may engage in discussions to sell or otherwise dispose of, through one or more strategic transactions, its various operating assets, including key personnel and key service agreements, to one or more organizations, and otherwise complete such strategic transactions and has generally excepted any such discussions and strategic transactions from the prohibitions described above in this section entitled "The Merger Agreement - No Solicitation."

Meetings of Stockholders

Discovery Partners is obligated under the merger agreement to call, give notice of and hold the Discovery Partners special meeting for purposes of considering the issuance of shares of Discovery Partners common stock pursuant to the merger, the amendment to Discovery Partners certificate of incorporation effecting the reverse stock split, and the amendment to Discovery Partners bylaws to increase the maximum number of directors that may constitute the entire board of directors of Discovery Partners to 12.

Infinity is obligated under the merger agreement to call, give notice of and hold the Infinity special meeting for purposes of considering the adoption of the merger agreement.

Covenants; Conduct of Business Pending the Merger

Infinity 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. Infinity also agreed that, subject to certain limited exceptions, without the consent of Discovery Partners, 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 or repurchase any securities;

sell, issue or grant any securities, including options and warrants;

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amend or waive any rights under, or permit the acceleration of vesting under, any stock option plan, stock option or warrant agreement, 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;

make aggregate capital expenditures in excess of \$100,000;

enter into any contract having a value in excess of \$100,000, or amend or terminate any contract, or waive any right or remedy under any contract other than in the ordinary course of business consistent with past practices;

acquire, lease or license any right or asset or sell, dispose of, lease or license any right or asset or waive or relinquish any right except immaterial rights or assets in the ordinary course of business consistent with past practices;

write off as uncollectible, or establish any extraordinary reserve with respect to, any account receivable or other indebtedness;

pledge or encumber any assets, except for pledges of immaterial assets made in the ordinary course of business consistent with past practices;

lend money to any person, incur or guarantee indebtedness in the aggregate in excess of \$100,000, or issue or sell any debt securities or options, warrants, calls or other similar rights to acquire any debt securities;

establish or adopt any employee benefit plan, pay any bonus or make any profit sharing, incentive compensation or similar payment to or increase the wages, salary or fringe benefits or other compensation of any of its directors, officers or employees with an annual salary in excess of \$100,000, or hire a new employee having an annual salary in excess of \$100,000;

change any of its personnel policies or other business policies, or any of its methods of accounting or accounting practices in any respect;

make any material tax election;

threaten, commence or settle any legal proceeding;

enter into any transaction or take any other action outside the ordinary course of business consistent with past practices, other than the transactions contemplated by the merger agreement;

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pay, discharge or satisfy any claim, liability or obligation, other than non-material amounts in the ordinary course of business consistent with past practices, or as required by any contract or legal requirement; or

agree or commit to take any of these restricted actions.

Discovery Partners 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. Discovery Partners also agreed that, subject to certain limited exceptions, without the consent of Infinity, 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 any securities;

sell, issue or grant any securities, including options and warrants;

amend or waive any rights under, or permit the acceleration of vesting under, any stock option plan, stock option or warrant agreement, restricted stock purchase agreement, or other contract relating to any equity award;

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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;

make aggregate capital expenditures in excess of \$100,000;

enter into any contract having a value in excess of \$100,000, or amend or terminate any contract, or waive any right or remedy under any contract other than in the ordinary course of business consistent with past practices;

acquire, lease or license any right or asset or sell, dispose of, lease or license any right or asset or waive or relinquish any right, except immaterial rights or assets in the ordinary course of business consistent with past practices;

write off as uncollectible, or establish any extraordinary reserve with respect to, any account receivable or other indebtedness;

pledge or encumber its assets except for pledges of immaterial assets made in the ordinary course of business consistent with past practices;

lend money to any person, incur or guarantee any indebtedness in the aggregate in excess of \$100,000, or issue or sell any debt securities or options, warrants, calls or other similar rights to acquire any debt securities;

establish or adopt any employee benefit plan, pay any bonus or make any profit sharing, incentive compensation or similar payment to or increase the wages, salary or fringe benefits or other compensation of any of its directors, officers or employees with an annual salary in excess of \$100,000, or hire a new employee having an aggregate salary in excess of \$100,000;

change any of its personnel policies or other business policies, or any of its methods of accounting or accounting practices in any respect;

make any material tax election;

threaten, commence or settle any legal proceeding;

enter into any transaction or take any other action outside the ordinary course of business consistent with past practices other than the transactions contemplated by the merger agreement;

pay, discharge or satisfy any claim, liability or obligation, other than non-material amounts in the ordinary course of business consistent with past practices, or as required by any contract or legal requirements; or

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agree or commit to take any of these restricted actions.

The merger agreement contemplates that Discovery Partners may engage in discussions to sell or otherwise dispose of, through one or more strategic transactions, its various operating assets, including key personnel and key service agreements, to one or more organizations, and otherwise complete such strategic transactions and has generally excepted any such discussions and strategic transactions from the prohibitions described above in this section entitled "The Merger Agreement - Covenants; Conduct of Business Pending the Merger."

Other Agreements

Each of Infinity and Discovery Partners 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;

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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. Infinity and Discovery Partners agreed that:

Discovery Partners will use commercially reasonable efforts to maintain the listing of its common stock on the NASDAQ Global Market and to obtain approval for listing on the NASDAQ Global Market of its common stock that Infinity securityholders will be entitled to receive pursuant to the merger;

for a period of six years after the merger, the combined company will indemnify each of the directors and officers of Infinity and Discovery Partners to the fullest extent permitted under the DGCL and will maintain directors and officers liability insurance for Infinity and Discovery Partners directors and officers; and

Infinity and Discovery Partners will prepare and deliver to each other certain financial statements.

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 Infinity and Discovery Partners;

by Infinity or Discovery Partners, if the merger has not been completed by October 11, 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 Infinity or Discovery Partners, 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 Infinity or Discovery Partners, if the stockholders of Discovery Partners have not approved the issuance of Discovery Partners common stock pursuant to the merger and the amendment of Discovery Partners certificate of incorporation effecting the reverse stock split at the Discovery Partners special meeting or any adjournment or postponement thereof, provided that Discovery Partners may not terminate the merger agreement pursuant to this provision if such failure to obtain the approval of Discovery Partners stockholders was caused by the action or failure to act of Discovery Partners and such action or failure to act constitutes a material breach by Discovery Partners of the merger agreement;

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by Infinity or Discovery Partners, if the stockholders of Infinity have not adopted the merger agreement at the Infinity special meeting or any adjournment or postponement thereof, provided that Infinity may not terminate the merger agreement pursuant to this provision if such failure to obtain the approval of Infinity's stockholders was caused by the action or failure to act of Infinity and such action or failure to act is a material breach of the merger agreement;

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by Infinity, at any time prior to the approval of the issuance of the shares of Discovery Partners common stock pursuant to the merger and the amendment to Discovery Partners certificate of incorporation effecting the reverse stock split by the stockholders of Discovery Partners, if:

Discovery Partners board of directors fails to recommend that Discovery Partners stockholders vote to approve the issuance of the shares of Discovery Partners common stock pursuant to the merger, the amendment to Discovery Partners certificate of incorporation effecting the reverse stock split or the amendment to Discovery Partners bylaws to increase the maximum number of directors that may constitute the entire board of directors of Discovery Partners to 12 or withdraws or modifies its recommendation in a manner adverse to Infinity,

Discovery Partners fails to include in this joint proxy statement/prospectus such recommendation,

Discovery Partners fails to hold the Discovery Partners special meeting within 45 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 45-day period shall be tolled for so long as such stop order remains in effect or proceeding or threatened proceeding remains pending,

the Discovery Partners board of directors approves, endorses or recommends any acquisition proposal, as defined under The Merger Agreement No Solicitation ,

Discovery Partners enters into any letter of intent or similar document or any contract relating to any acquisition proposal, as defined under The Merger Agreement No Solicitation, other than a confidentiality agreement permitted pursuant to the merger agreement, or

Discovery Partners or any director, officer or agent of Discovery Partners willfully and intentionally breaches the no solicitation provisions set forth in the merger agreement (each of the above clauses is referred to herein as a Discovery Partners Triggering Event);

by Discovery Partners, at any time prior to the adoption of the merger agreement by the stockholders of Infinity, if:

the Infinity board of directors fails to recommend that Infinity s stockholders vote to adopt the merger agreement or withdraws or modifies its recommendation in a manner adverse to Discovery Partners,

Infinity fails to include in this joint proxy statement/prospectus such recommendation,

Infinity fails to hold the Infinity special meeting within 45 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 45-day period shall be tolled for so long as such stop order remains in effect or proceeding or threatened proceeding remains pending,

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the Infinity board of directors approves, endorses or recommends any acquisition proposal, as defined under The Merger Agreement No Solicitation ,

Infinity enters into any letter of intent or similar document or any contract relating to any acquisition proposal, as defined under The Merger Agreement No Solicitation, other than a confidentiality agreement permitted pursuant to the merger agreement, or

Infinity or any director, officer or agent of Infinity willfully and intentionally breaches the no solicitation provisions set forth in the merger agreement (each of the above clauses is referred to herein as an Infinity Triggering Event); or

by Infinity or Discovery Partners, if the other party has breached any of its representations, warranties, covenants or other agreements contained in the merger agreement or if any representation or warranty

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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, provided that 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.

Termination Fee

Fee payable by Discovery Partners

Discovery Partners must pay Infinity a termination fee of \$6 million if (1) the merger agreement is terminated because Discovery Partners stockholders do not approve the issuance of Discovery Partners common stock pursuant to the merger or the amendment to Discovery Partners certificate of incorporation effecting the reverse stock split and an acquisition proposal, as defined above under *The Merger Agreement No Solicitation*, with respect to Discovery Partners was publicly announced, disclosed or otherwise communicated to the board of directors or stockholders of Discovery Partners prior to the Discovery Partners special meeting and Discovery Partners enters into a definitive agreement for, or consummates, an acquisition transaction, as defined above under *The Merger Agreement No Solicitation*, within twelve months of the termination, or (2) the merger agreement is terminated by Infinity because of a Discovery Partners Triggering Event, as defined above under *The Merger Agreement Termination*.

Fees payable by Infinity

Infinity must pay Discovery Partners a termination fee of \$6 million if (1) the merger agreement is terminated because Infinity's stockholders do not adopt the merger agreement and an acquisition proposal, as defined above under *The Merger Agreement No Solicitation*, with respect to Infinity was publicly announced, disclosed or otherwise communicated to the board of directors or stockholders of Infinity prior to the Infinity special meeting and Infinity enters into a definitive agreement or consummates an acquisition transaction, as defined above under *The Merger Agreement No Solicitation*, within twelve months of the termination, or (2) the merger agreement is terminated by Discovery Partners because of an Infinity Triggering Event, as defined above under *The Merger Agreement Termination*.

Representations and Warranties

The merger agreement contains customary representations and warranties of Discovery Partners and Infinity 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 Discovery Partners, documents filed with the SEC and the accuracy of information contained in those documents;

any undisclosed liabilities;

any material changes or events;

with respect to Infinity, title to assets;

bank accounts and receivables;

equipment and leaseholds;

filing of tax returns and payment of taxes;

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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 Discovery Partners special meeting and the Infinity special meeting;

transactions with affiliates;

with respect to Discovery Partners, the valid issuance of the shares of Discovery Partners common stock in the merger;

with respect to Discovery Partners, controls and procedures and related matters;

with respect to Discovery Partners, the amendment of the Discovery Partners stockholder rights agreement; and

with respect to Discovery Partners, 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 Infinity and Discovery Partners 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 Infinity, no amendment which by law requires further approval by the stockholders of Infinity shall be made without such further approval.

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AGREEMENTS RELATED TO THE MERGER

Voting Agreements

In order to induce Discovery Partners to enter into the merger agreement, several Infinity stockholders entered into voting agreements and irrevocable proxies with Discovery Partners 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 Infinity 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 Infinity, 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. These Infinity stockholders also granted Discovery Partners an irrevocable proxy to their respective shares in accordance with the voting agreement. These Infinity stockholders may vote their shares of Infinity capital stock on all other matters not referred to in such proxy.

As of April 30, 2006, the stockholders of Infinity that entered into voting agreements collectively owned 6,023,553 shares of common stock and 23,352,247 shares of preferred stock of Infinity, representing approximately 47.9% of the outstanding capital stock of Infinity and approximately 48.19% of the outstanding preferred stock of Infinity. All of these stockholders are executive officers, directors, or entities controlled by such persons, or 5% stockholders, of Infinity.

Under these voting agreements executed by Infinity stockholders, subject to certain exceptions, such stockholders also have agreed not to sell or transfer Infinity capital stock and options and warrants to purchase Infinity 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 Infinity to enter into the merger agreement, several Discovery Partners stockholders entered into voting agreements and irrevocable proxies with Infinity 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 Discovery Partners common stock in favor of the approval of the issuance of the shares of Discovery Partners common stock pursuant to the merger and the approval of the amendment to Discovery Partners certificate of incorporation effecting the reverse stock split, and against any action or agreement that would result in a breach of the merger agreement by Discovery Partners 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. These Discovery Partners stockholders also granted Infinity an irrevocable proxy to their respective shares in accordance with the voting agreement. These Discovery Partners stockholders may vote their shares of Discovery Partners common stock on all other matters not referred to in such proxy.

The Discovery Partners stockholders that entered into voting agreements are Discovery Partners officers and directors. As of April 30, 2006, these stockholders collectively owned shares representing approximately 2.5% of the outstanding common stock of Discovery Partners.

Under these voting agreements executed by Discovery Partners stockholders, subject to certain exceptions, such stockholders also have agreed not to sell or transfer Discovery Partners common stock and options and warrants to acquire Discovery Partners 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.

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Lock-up Agreements

In connection with the execution of the merger agreement, the Infinity stockholders listed below entered into a Lock-up Agreement, pursuant to which such parties agreed not to sell or transfer, or engage in hedging or similar transactions with respect to, the shares of Discovery Partners common stock 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, except in limited circumstances; *provided, however*, the restrictions on the sale or transfer of, or engaging in hedging or similar transactions with respect to, such shares of Discovery Partners common stock shall lapse as to 1/26th of such shares on the 7th day after the closing date and as to an additional 1/26th of such shares each week thereafter, until the 180th day after the closing date, at which time the restrictions shall lapse as to all such shares. The following Infinity stockholders executed lock-up agreements: Advent Management III Limited Partnership, Advent Private Equity Fund III A, Advent Private Equity Fund III B, Advent Private Equity Fund III C, Advent Private Equity Fund III D, Advent Private Equity Fund III Affiliates, Advent Private Equity Fund III GmbH Co. KG, Prospect Venture Partners II, L.P., Prospect Venture Partners, L.P., Venrock Associates, Venrock Associates III, L.P. Venrock Entrepreneurs Fund III, L.P., HBM BioVentures (Cayman) Ltd., Vulcan Ventures Inc., Eric Lander, Stuart Schreiber, James B. Tananbaum and Dana Shonfeld Tananbaum Family Trust, Steven Holtzman, Julian Adams, Adelene Perkins, Jeffrey Tong and David Grayzel.

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MATTERS BEING SUBMITTED TO A VOTE OF DISCOVERY PARTNERS STOCKHOLDERS

Discovery Partners Proposal No. 1: Approval of the Issuance of Common Stock in the Merger

At the Discovery Partners special meeting, Discovery Partners stockholders will be asked to approve the issuance of Discovery Partners common stock pursuant to the merger agreement. The number of shares of Discovery Partners common stock that Infinity securityholders will be entitled to receive pursuant to the merger are expected to represent approximately 69% of the fully-diluted shares of the combined company immediately following the consummation of the merger. This percentage assumes:

the exercise of all outstanding Infinity options and warrants,

the vesting of shares of Discovery Partners restricted common stock and the exercise of Discovery Partners options exercisable on or before June 15, 2006 with an exercise price equal to or less than \$6.00 per share, calculated using the treasury method,

that the amount of Infinity options and warrants does not change between the date hereof and the closing of the merger, and

that Discovery Partners' net cash balance, as calculated pursuant to the merger agreement, at the closing of the merger is greater than or equal to \$70 million and less than or equal to \$75 million.

The terms of, reasons for and other aspects of the merger agreement, the merger and the issuance of Discovery Partners common stock pursuant to the merger agreement are described in detail in the other sections of this joint proxy statement/prospectus.

Required Vote

The affirmative vote of the holders of a majority of Discovery Partners common stock having voting power present in person or represented by proxy at the Discovery Partners special meeting is required for approval of Discovery Partners Proposal No. 1.

THE DISCOVERY PARTNERS BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT DISCOVERY PARTNERS STOCKHOLDERS VOTE FOR DISCOVERY PARTNERS PROPOSAL NO. 1 TO APPROVE THE ISSUANCE OF DISCOVERY PARTNERS COMMON STOCK PURSUANT TO THE MERGER AGREEMENT.

Discovery Partners Proposal No. 2: Approval of Amendment to Discovery Partners' Certificate of Incorporation Effecting the Reverse Stock Split

General

At the Discovery Partners special meeting, Discovery Partners stockholders will be asked to approve an amendment to Discovery Partners' certificate of incorporation effecting a reverse stock split of the issued shares of Discovery Partners common stock, at a ratio within the range of 2:1 to 6:1. The approval of Discovery Partners Proposal No. 2 by the Discovery Partners stockholders is a condition to Discovery Partners' and Infinity's obligation to complete the merger. Upon the effectiveness of the amendment to Discovery Partners' certificate of incorporation effecting the reverse stock split, referred to as the split effective time, the issued shares of Discovery Partners common stock immediately prior to the split effective time will be reclassified into a smaller number of shares such that a Discovery Partners stockholder will own one new share of Discovery Partners common stock for each 2 to 6 shares of issued common stock held by that stockholder immediately prior to the split effective time. The exact split ratio within the 2:1 to 6:1 range will be determined by the Discovery Partners board of directors prior to the split effective time and will be publicly announced by Discovery Partners.

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The following table provides estimates of the number of shares of Discovery Partners 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 2:1 reverse stock split but prior to closing of the merger, (iii) assuming a 6:1 reverse stock split but prior to closing of the merger, (iv) assuming a 2:1 reverse stock split and the closing of the merger, and (v) assuming a 6:1 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:	100,000,000	26,436,931	2,461,396	71,101,673
After Assumed 2:1 Reverse Stock Split but Before Closing of the Merger:	100,000,000	13,218,465	1,230,698	85,550,837
After Assumed 6:1 Reverse Stock Split but Before Closing of the Merger:	100,000,000	4,406,155	410,232	95,183,613
After Assumed 2:1 Reverse Stock Split and Issuance of Shares Following Closing of the Merger:	100,000,000	40,764,077(2)	4,197,737(4)	55,038,186
After Assumed 6:1 Reverse Stock Split and Issuance of Shares Following Closing of the Merger:	100,000,000	13,588,025(3)	1,399,244(5)	85,012,731

- (1) These estimates assume 26,436,931 shares of Discovery Partners common stock issued and outstanding immediately prior to the closing of the merger which was the number of shares issued and outstanding as of April 30, 2006. These estimates also assume that Discovery Partners net cash at closing, as calculated pursuant to the merger agreement, will be greater than or equal to \$70 million and less than or equal to \$75 million.
- (2) This assumes 13,218,465 shares of Discovery Partners common stock issued and outstanding immediately prior to the closing of the merger and 27,545,612 shares of Discovery Partners common stock that Infinity stockholders will be entitled to receive in connection with the merger.
- (3) This assumes 4,406,155 shares of Discovery Partners common stock issued and outstanding immediately prior to the closing of the merger and 9,181,870 shares of Discovery Partners common stock that Infinity stockholders will be entitled to receive in connection with the merger.
- (4) This assumes 1,230,698 shares of Discovery Partners common stock reserved for issuance for the exercise of options to purchase shares of Discovery Partners common stock outstanding immediately prior to the closing of the merger and 2,967,039 shares of Discovery Partners common stock reserved for issuance for the exercise of options and warrants to purchase shares of Discovery Partners common stock that the holders of options and warrants to purchase shares of Infinity capital stock will be entitled to receive in connection with the merger.
- (5) This assumes 410,232 shares of Discovery Partners common stock reserved for issuance for the exercise of options to purchase shares of Discovery Partners common stock outstanding immediately prior to the closing of the merger and 989,012 shares of Discovery Partners common stock reserved for issuance for the exercise of options and warrants to purchase shares of Discovery Partners common stock that the holders of options and warrants to purchase shares of Infinity capital stock will be entitled to receive in connection with the merger.

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Discovery Partners does not expect to need to effect the reverse stock split to complete the merger because it expects to have sufficient authorized but unissued shares for issuance in the merger. Instead, Discovery Partners expects that it will need to effect the reverse stock split to complete the merger because the listing standards of the NASDAQ Global Market will require Discovery Partners to have, among other things, a \$5.00 per share minimum bid price upon the closing of the merger. However, if Discovery Partners' net cash at closing, as calculated pursuant to the merger agreement, is less than \$70 million, the adjustment to the exchange ratio could, under certain circumstances, make the reverse stock split necessary because Discovery Partners would not have sufficient authorized but unissued shares for issuance in the merger.

If Discovery Partners Proposal No. 2 is approved, the reverse stock split would become effective upon the closing of the merger. The Discovery Partners board of directors may effect only one reverse stock split in connection with this Discovery Partners Proposal No. 2. The Discovery Partners board of directors' decision will be based on a number of factors, including market conditions, existing and expected trading prices for Discovery Partners' common stock and the listing requirements of the NASDAQ Global Market. Even if the stockholders approve the reverse stock split, Discovery Partners reserves the right not to effect the reverse stock split if the Discovery Partners board of directors does not deem it to be in the best interests of Discovery Partners and its stockholders to effect the reverse stock split. The Discovery Partners 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 Discovery Partners common stock pursuant to the merger.

The form of the amendment to Discovery Partners' certificate 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 Discovery Partners' common stock or preferred stock.

Purpose

The Discovery Partners board of directors approved the proposal approving the amendment to Discovery Partners' certificate of incorporation effecting the reverse stock split for the following reasons:

because the listing standards of the NASDAQ Global Market will require Discovery Partners to have, among other things, a \$5.00 per share minimum bid price upon the closing of the merger, the reverse stock split may be 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 Discovery Partners common stock from the NASDAQ Global Market in the future; and

the board of directors believes a higher stock price may help generate investor interest in Discovery Partners and help Discovery Partners attract and retain employees.

If the reverse stock split successfully increases the per share price of Discovery Partners' common stock, Discovery Partners' board of directors believes this increase may increase trading volume in Discovery Partners' common stock and facilitate future financings by Discovery Partners.

NASDAQ Requirements for Listing on the NASDAQ Global Market

Discovery Partners' common stock is quoted on the NASDAQ Global Market under the symbol DPPI.

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 Discovery Partners 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, Discovery Partners' board of directors believes that maintaining its listing on the NASDAQ Global Market may provide a broader market for Discovery Partners common stock and facilitate the use of

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Discovery Partners common stock in financing and other transactions. Discovery Partners board of directors unanimously approved the reverse stock split partly as a means of maintaining the share price of Discovery Partners 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 Discovery Partners effects the reverse stock split using a 2:1 ratio, its authorized but unissued shares immediately prior to the closing of the merger would be approximately 86,781,534 compared to shares issued of approximately 13,218,465. If Discovery Partners effects the reverse stock split using a 6:1 ratio, its authorized but unissued shares immediately prior to the closing of the merger would be approximately 95,593,845 compared to shares issued of approximately 4,406,155. Discovery Partners currently has no plans to issue shares, other than in connection with the merger, and to satisfy obligations under Discovery Partners employee stock options from time to time as these options are exercised. The reverse stock split will not affect the number of authorized shares of Discovery Partners common stock which will continue to be 100,000,000.

Potential Increased Investor Interest

On May 22, 2006, Discovery Partners common stock closed at \$2.45 per share. In approving the proposal approving the amendment to Discovery Partners certificate of incorporation effecting the reverse stock split, Discovery Partners board of directors considered that Discovery Partners 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 Discovery Partners 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 Discovery Partners common stock.

Discovery Partners cannot predict whether the reverse stock split will increase the market price for Discovery Partners 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 Discovery Partners common stock after the reverse stock split will rise in proportion to the reduction in the number of shares of Discovery Partners 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 Discovery Partners 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 Discovery Partners will otherwise meet the requirements of NASDAQ for inclusion for trading on the NASDAQ Global Market.

The market price of Discovery Partners common stock will also be based on Discovery Partners 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 Discovery Partners common stock declines, the percentage decline as an absolute number and as a percentage of Discovery Partners overall market capitalization may be greater than would occur in the absence of a reverse stock split. Furthermore, the liquidity of Discovery Partners common stock could be adversely affected by the reduced number of shares that would be outstanding after the reverse stock split.

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Principal Effects of the Reverse Stock Split

The amendment to Discovery Partners' certificate of incorporation effecting the reverse stock split is set forth in *Annex D* to this joint proxy statement/prospectus.

The reverse stock split will be effected simultaneously for all outstanding shares of Discovery Partners common stock. The reverse stock split will affect all of Discovery Partners' stockholders uniformly and will not affect any stockholder's percentage ownership interests in Discovery Partners, except to the extent that the reverse stock split results in any of Discovery Partners' 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 Discovery Partners' continuing to be subject to the periodic reporting requirements of the Securities Exchange Act of 1934, as amended, which is referred to herein as the Exchange Act.

Procedure for Effecting Reverse Stock Split and Exchange of Stock Certificates

If Discovery Partners' stockholders approve the amendment to Discovery Partners' certificate of incorporation effecting the reverse stock split, and if Discovery Partners' board of directors still believes that a reverse stock split is in the best interests of Discovery Partners and its stockholders, the Discovery Partners board will determine the ratio of the reverse stock split to be implemented and publicly announce such ratio. Discovery Partners will file a certificate of amendment with the Secretary of State of the State of Delaware at such time as Discovery Partners' board of directors has determined to be the appropriate split effective time. The Discovery Partners 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 has been effected. Discovery Partners expects that Discovery Partners' 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 Discovery Partners. 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 Global 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 amendment to Discovery Partners' certificate 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 2 and 6 shares into one share.

Stockholders should be aware that, under the escheat laws of the various jurisdictions where stockholders reside, where Discovery Partners is domiciled, and where the funds will be deposited, sums due for fractional

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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 Discovery Partners 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 Discovery Partners' balance sheet. However, because the par value of Discovery Partners 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 13,200 and 4,400 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 Discovery Partners will be increased because there will be fewer shares of Discovery Partners 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 Discovery Partners' board of directors or contemplating a tender offer or other transaction for the combination of Discovery Partners with another company, the reverse stock split proposal is not being proposed in response to any effort of which Discovery Partners is aware to accumulate shares of Discovery Partners common stock or obtain control of Discovery Partners, other than in connection with the merger with Infinity, nor is it part of a plan by management to recommend a series of similar amendments to Discovery Partners' board of directors and stockholders. Other than the proposals being submitted to Discovery Partners' stockholders for their consideration at the Discovery Partners special meeting, Discovery Partners' 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 Discovery Partners.

No Appraisal Rights

Under the DGCL, Discovery Partners' stockholders are not entitled to appraisal rights with respect to the reverse stock split, and Discovery Partners will not independently provide stockholders with any such right.

Material United States Federal Income Tax Consequences of the Reverse Stock Split

The following is a summary of certain material federal income tax consequences of the reverse stock split and does not purport to be a complete discussion of all of the possible federal income tax consequences of the reverse stock split and is included for general information only. Further, it does not address any state, local or foreign income or other tax consequences. 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. Also, the following summary does not address the tax consequences to holders that are subject to special tax rules, such as banks, insurance companies, regulated investment companies, personal holding companies, foreign entities, nonresident alien individuals, broker-dealers and tax-exempt entities. The discussion is based on the current provisions of the Internal Revenue Code of 1986, as amended, or 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 also assumes that the pre-split shares were, and the post-split shares will be, held as capital assets within the meaning of Section 1221 of the Code (generally,

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property held for investment). The tax treatment of a stockholder may vary depending upon the particular facts and circumstances of such stockholder. Each stockholder is urged to consult with such stockholder's own tax advisor with respect to the tax consequences of the reverse stock split.

Other than the cash payments for fractional shares discussed below, no gain or loss should be recognized by a stockholder upon such stockholder's exchange of pre-split shares for post-split shares pursuant to the reverse stock split. The aggregate tax basis of the post-split shares received in the reverse stock split, including any fraction of a post-split share deemed to have been received, will be the same as the stockholder's aggregate tax basis in the pre-split shares that are exchanged.

In general, stockholders who receive cash upon redemption of their fractional share interests in the post-split shares as a result of the reverse stock split will recognize gain or loss equal to the difference between their basis in the fractional share and the amount of cash received. The stockholder's holding period for the post-split shares will include the period during which the stockholder held the pre-split shares surrendered in the reverse stock split.

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 stock 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 bases and holding periods, stockholders who acquired different blocks of 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.

Discovery Partners' view regarding the tax consequence of the reverse stock split is not binding on the Internal Revenue Service or the courts. Accordingly, each stockholder should consult with such stockholder's own tax advisor with respect to all of the potential tax consequences to such stockholder of the reverse stock split.

Vote Required; Recommendation of Board of Directors

The affirmative vote of holders of a majority of the Discovery Partners common stock having voting power outstanding on the record date for the Discovery Partners special meeting is required to approve the amendment to Discovery Partners' certificate of incorporation effecting a reverse stock split of Discovery Partners common stock, at a ratio within the range of 2:1 to 6:1, and at such ratio to be determined by the board of directors of Discovery Partners.

THE DISCOVERY PARTNERS BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT DISCOVERY PARTNERS STOCKHOLDERS VOTE FOR DISCOVERY PARTNERS PROPOSAL NO. 2 TO AMEND DISCOVERY PARTNERS CERTIFICATE OF INCORPORATION EFFECTING THE REVERSE STOCK SPLIT.

Discovery Partners Proposal No. 3: Approval of Name Change

At the Discovery Partners special meeting, holders of Discovery Partners stock will be asked to approve the amendment to Discovery Partners' certificate of incorporation to change the name of the corporation from Discovery Partners International, Inc. to Infinity Pharmaceuticals, Inc. upon consummation of the merger. The primary reason for the corporate name change is that management believes this will allow for brand recognition of Infinity's product candidates and product candidate pipeline following the consummation of the merger. Discovery Partners 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.

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Insofar as the proposed new corporate name will only reflect Infinity's business following the merger, the proposed name change and the amendment of Discovery Partners' certificate of incorporation, even if approved by the stockholders at the special meeting, will only be filed with the office of the Secretary of State of the State of Delaware and, therefore, become effective if the merger is consummated.

The affirmative vote of holders of a majority of the Discovery Partners common stock having voting power outstanding on the record date for the Discovery Partners special meeting is required to approve the amendment to Discovery Partners' certificate of incorporation to change the name of Discovery Partners International, Inc. to Infinity Pharmaceuticals, Inc.

THE DISCOVERY PARTNERS BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT DISCOVERY PARTNERS STOCKHOLDERS VOTE FOR DISCOVERY PARTNERS PROPOSAL NO. 3 TO APPROVE THE NAME CHANGE.

Discovery Partners Proposal No. 4: Approval of Amendment to Discovery Partners' Bylaws to Increase the Maximum Size of the Board from 10 Directors to 12 Directors

At the Discovery Partners meeting, Discovery Partners stockholders will be asked to approve the amendment of Discovery Partners' bylaws to increase the maximum number of directors that may constitute the entire board of directors of Discovery Partners from 10 directors to 12 directors. The primary reason for the increase in the maximum number of directors that may constitute the Discovery Partners' board of directors is to provide board seats to accommodate additional directors from Infinity's board of directors who have been recommended by Infinity as desirable members for inclusion on the Discovery Partners' board of directors upon consummation of the merger. The approval of the increase in the maximum number of directors that may constitute the Discovery Partners' board of directors by Discovery Partners stockholders is not a condition to the closing of the merger.

12 Member Combined Company Board of Directors

If Discovery Partners stockholders approve the increase in the maximum number of directors that may constitute the Discovery Partners' board of directors, assuming all the other conditions for the merger have been satisfied, the maximum number of directors that may constitute the entire board of directors of Discovery Partners will be increased to 12 directors, and the directors that will constitute the 12 member Discovery Partners board of directors will be as identified under The Merger's Interests of Infinity's Directors and Executive Officers in the Merger's Discovery Partners' Board of Directors After the Merger.

The Discovery Partners board of directors and management believe that increasing the maximum number of directors that may constitute the Discovery Partners' board of directors will allow valuable members of Infinity's current board of directors to join the board of directors of the combined company.

10 Member Combined Company Board of Directors

In the event Discovery Partners stockholders do not approve of the increase in the maximum number of directors that may constitute the Discovery Partners' board of directors, the maximum number of directors that may constitute the entire board of directors of Discovery Partners will remain at 10 directors, and assuming all the other conditions for the merger have been satisfied, the directors that will constitute the 10 member Discovery Partners board of directors will be as identified under The Merger's Interests of Infinity's Directors and Executive Officers in the Merger's Discovery Partners' Board of Directors After the Merger.

Insofar as the proposed increase in the maximum number of directors that may constitute the Discovery Partners' board is intended to provide board seats to accommodate additional directors from Infinity's board of directors for inclusion on the Discovery Partners' board of directors upon consummation of the merger, the proposed amendment to Discovery Partners' bylaws and the increase in the maximum number of directors that may constitute the Discovery Partners' board of directors, even if approved by the stockholders at the special meeting, will only become effective if the merger is consummated.

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The affirmative vote of holders of 66²/₃% of the Discovery Partners common stock having voting power outstanding on the record date for the Discovery Partners special meeting is required to approve the amendment to Discovery Partners bylaws to increase the maximum number of directors that may constitute the entire board of directors of Discovery Partners from 10 directors to 12 directors.

THE DISCOVERY PARTNERS BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT DISCOVERY PARTNERS STOCKHOLDERS VOTE FOR DISCOVERY PARTNERS PROPOSAL NO. 4 TO APPROVE THE AMENDMENT TO DISCOVERY PARTNERS BYLAWS TO INCREASE THE MAXIMUM NUMBER OF DIRECTORS THAT MAY CONSTITUTE THE BOARD FROM 10 DIRECTORS TO 12 DIRECTORS.

Discovery Partners Proposal No. 5: Approval of Amendment to the Discovery Partners 2000 Stock Incentive Plan

At the Discovery Partners special meeting, Discovery Partners stockholders will be asked to approve an amendment to the Discovery Partners 2000 Stock Incentive Plan, which is referred to herein as the 2000 Plan, increasing the number of shares authorized for issuance thereunder, effective as of immediately following the effective time of the closing of the merger, and amending the provisions thereof regarding the number of shares by which the share reserve automatically increases each year, the maximum number of shares one person may receive per calendar year under the 2000 Plan and the purchase price, if any, to be paid by a recipient for common stock under the 2000 Plan, as described in this joint proxy statement/prospectus.

If the amendment to the 2000 Plan is approved, effective as of immediately following the effective time of the closing of the merger, and after giving effect to the reverse stock split, the number of shares authorized for issuance thereunder would increase from 6,297,374 shares to a number equal to the sum of:

the number of shares of Discovery Partners common stock issuable upon exercise of any Discovery Partners options with an exercise price equal to or greater than \$3.00 per share, prior to giving effect to the reverse stock split, issued and outstanding under, and the number of shares of Discovery Partners common stock issued and outstanding and subject to a right of repurchase in favor of Discovery Partners pursuant to, the 2000 Plan as of immediately prior to the closing of the merger; plus

the number of shares of Discovery Partners common stock issuable to holders of options to purchase Infinity common stock assumed by Discovery Partners, and the number of shares of Discovery Partners common stock issued to holders of common stock of Infinity issued pursuant to Infinity's stock incentive plans and subject to a right of repurchase in favor of Infinity as of immediately prior to the closing of the merger, pursuant to the merger agreement; plus

the number of shares of Discovery Partners common stock available for future grant under the 2000 Plan as of immediately prior to the closing of the merger; plus

the number of shares equal to 7% of Discovery Partners fully-diluted capitalization, determined as of immediately following the effective time of the merger, after giving effect to the increase in shares reserved for issuance under the 2000 Plan pursuant to Discovery Partners Proposal No. 5.

Discovery Partners fully-diluted capitalization shall be equal to the sum of:

Discovery Partners issued and outstanding common stock; plus

all shares of Discovery Partners common stock issuable upon the exercise, exchange or conversion of any outstanding option, warrant or other right that is exercisable, exchangeable or convertible into Discovery Partners common stock, including, without limitation, any options with an exercise price equal to or greater than \$3.00 per share, prior to giving effect to the reverse stock split, or other awards issued and outstanding under the 2000 Plan, and shares of Discovery Partners common stock subject to future issuance

pursuant to outstanding grants of deferred issuance restricted stock of Discovery Partners; plus

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the increase in shares reserved for issuance pursuant to Discovery Partners Proposal No. 5; plus

the shares of Discovery Partners common stock Infinity securityholders will be entitled to receive pursuant to the merger agreement. Notwithstanding the foregoing, pursuant to the amendment to the 2000 Plan, in no event will the number of shares reserved for issuance under the 2000 Plan exceed 9,700,000 shares. Such limit will be effective as of immediately following the effective time, and therefore, will not be adjusted to give effect to the reverse stock split.

The amendment to the 2000 Plan also provides that:

the number of shares of Discovery Partners common stock available for issuance under the 2000 Plan will automatically increase on the first trading day of January each calendar year during the term of the 2000 Plan by an amount equal to 4% of the total number of shares of Discovery Partners common stock outstanding on the last trading day in December of the preceding calendar year;

the maximum number by which the share reserve may automatically increase each calendar year under the 2000 Plan will not be adjusted to give effect to the reverse stock split and therefore, such maximum number will remain at 2,000,000 shares following the effective time of the reverse stock split;

the maximum number of options, stock appreciation rights and stock issuances that may be granted or issued to one person under the 2000 Plan per calendar year will not be adjusted to give effect to the reverse stock split and therefore, such per calendar year limit will remain at 500,000 shares following the effective time of the reverse stock split; and

the purchase price per share, if any, for shares of common stock issued under the 2000 Plan, will be determined by the plan administrator.

Summary of the 2000 Stock Incentive Plan

The following is a brief summary of the 2000 Plan as currently in effect. The following summary is qualified in its entirety by reference to the 2000 Plan, a copy of which is attached as *Annex H* to this joint proxy statement/prospectus, which may also be accessed from the SEC's website (www.sec.gov). In addition, a copy of the 2000 Plan can be obtained from Discovery Partners, Attention: Investor Relations.

General. Discovery Partners' 2000 Plan is the successor equity incentive program to its 1995 Stock Option/Stock Issuance Plan, or the 1995 Plan. Discovery Partners' board adopted the 2000 Plan in June 2000 and its stockholders approved it in June 2000. Upon the 2000 Plan becoming effective, all outstanding options under the predecessor 1995 Plan were transferred to the 2000 Plan. No further option grants may be made under such predecessor plan. The transferred options continue to be governed by their existing terms, unless Discovery Partners' compensation committee elects to extend one or more features of the 2000 Plan to those options. Except as otherwise noted below, the transferred options have substantially the same terms as are in effect for grants made under the discretionary option grant program of the 2000 Plan.

Share Reserve. As of April 30, 2006, 6,297,374 shares of common stock were authorized for issuance under the 2000 Plan, including shares rolled over from the 1995 Plan and the Axys Advanced Technologies, Inc., or Axys, stock option plan which Discovery Partners assumed in 2000 in connection with the merger of Axys into Discovery Partners. The number of shares of common stock reserved for issuance under the 2000 Plan automatically increases on the first trading day in January each calendar year by an amount equal to 2% of the total number of shares of common stock outstanding on the last trading day in December of the preceding calendar year, but in no event will any such annual increase exceed 2,000,000 shares. If Discovery Partners Proposal No. 5 is approved by Discovery Partners' stockholders at the Discovery Partners special meeting, the annual automatic increase percentage will increase from 2% to 4% of the total number of shares of Discovery Partners common stock outstanding on the last trading day of the preceding calendar year. In addition, if

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Discovery Partners Proposal No. 5 is approved by Discovery Partners stockholders at the Discovery Partners special meeting, the limit on the annual increase, currently a maximum of 2,000,000 shares, will not be adjusted to give effect to the reverse stock split. No participant in the 2000 Plan may be granted stock options, separately exercisable stock appreciation rights and direct stock issuances for more than 500,000 shares of common stock in the aggregate per calendar year. If Discovery Partners Proposal No. 5 is approved by Discovery Partners stockholders at the Discovery Partners special meeting, such limit per participant per calendar year, currently a maximum of 500,000 shares, will not be adjusted to give effect to the reverse stock split. The 2000 Plan also provides that, effective immediately following the effective time of the closing of the merger, the maximum number of shares with respect to which awards other than options and stock appreciation rights may be granted under the 2000 Plan is 4,850,000.

Equity Incentive Programs. The 2000 Plan is divided into five separate components:

the discretionary option grant program, under which eligible individuals in Discovery Partners employ or service may be granted options to purchase shares of common stock at an exercise price not less than 100% of the fair market value of those shares on the grant date;

the stock issuance program, under which such individuals may be issued shares of common stock directly, through the purchase of such shares at a price not less than 100% of fair market value at the time of issuance or as a bonus tied to the attainment of performance milestones or the completion of a specified period of service;

the salary investment option grant program, under which Discovery Partners executive officers and other highly compensated employees may be given the opportunity to apply a portion of their base salary to the acquisition of special below-market stock option grants;

the automatic option grant program, under which option grants will automatically be made at periodic intervals to Discovery Partners non-employee board members to purchase shares of common stock at an exercise price equal to 100% of the fair market value of those shares on the grant date; and

the director fee option grant program, under which Discovery Partners non-employee board members may be given the opportunity to apply all or a portion of the annual retainer fee otherwise payable to them in cash each year to the acquisition of special below-market option grants.

If Discovery Partners Proposal No. 5 is approved by Discovery Partners stockholders at the Discovery Partners special meeting, the relevant provisions of the 2000 Plan will be amended to provide that the purchase price of shares of Discovery Partners common stock will be determined by the plan administrator, and may be at less than fair market value.

Eligibility. The individuals eligible to participate in the 2000 Plan include Discovery Partners officers and other employees, Discovery Partners non-employee board members and any consultants and other independent advisors Discovery Partners hires.

Administration. The compensation committee of the board of directors administers the discretionary option grant program and the stock issuance program. This committee determines which eligible individuals are to receive option grants or stock issuances under these programs, the time or times when such option grants or stock issuances are to be made, the number of shares subject to each such grant or issuance, the status of any granted option as either an incentive stock option or a non-statutory stock option under the federal tax laws, the vesting schedule, if any, to be in effect for the option grant or stock issuance and the maximum term for which any granted option is to remain outstanding. The compensation committee also has the exclusive authority to select the executive officers and other highly compensated employees who may participate in the salary investment option grant program in the event that program is activated for one or more calendar years.

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Plan Features. The 2000 Plan includes the following features:

The optionee may pay the exercise price for the shares of common stock subject to option grants made under the 2000 Plan in cash or in shares of common stock valued at fair market value on the exercise date. The optionee may also exercise options for vested shares, without any cash outlay, through a same-day sale program. In addition, the plan administrator may provide financial assistance to one or more optionees in the exercise of their outstanding options under the discretionary option program or the purchase of their unvested shares under the stock issuance program by allowing such individuals to deliver a full-recourse, interest-bearing promissory note in payment of the exercise price and any associated withholding taxes incurred in connection with such exercise or purchase.

Effective immediately following the effective time of the closing of the merger, unless such action is approved by the stockholders of the combined company, no outstanding option granted under the 2000 Plan may be amended to provide an exercise price per share that is lower than the then-current exercise price per share of such outstanding option, other than adjustments in connection with a stock split, stock dividend, recapitalization, combination of shares, exchange of shares or other change affecting the outstanding common stock as a class without the combined company's receipt of consideration, and the board may not cancel any outstanding option, whether or not granted under the 2000 Plan, and grant in substitution therefor new awards under the 2000 Plan covering the same or a different number of shares of common stock and having an exercise price per share lower than the then-current exercise price per share of the cancelled option.

The compensation committee has the authority to grant options which are exercisable for unvested shares of common stock, subject to Discovery Partners' right to repurchase any or all of the unvested shares at the exercise price paid per share upon the optionee's cessation of employment with Discovery Partners.

Stock appreciation rights are authorized for issuance under the discretionary option grant program. Such rights will provide the holders with the election to surrender their outstanding options for an appreciation distribution from Discovery Partners equal to the fair market value of the vested shares of common stock subject to the surrendered option, less the aggregate exercise price payable for those shares. Such appreciation distribution may be made in cash and/or in shares of common stock. None of the outstanding options under the 1995 Plan contain any stock appreciation rights.

The Discovery Partners board of directors may amend or modify the 2000 Plan at any time, subject to any required stockholder approval. The 2000 Plan will terminate no later than May 2010.

The 2000 Plan includes the following change in control provisions, which may result in the accelerated vesting of outstanding option grants and stock issuances:

In the event that Discovery Partners is acquired by merger or sale of substantially all of its assets, each outstanding option under the discretionary option grant program which is not to be assumed by the successor corporation will automatically accelerate in full, and all unvested shares under the discretionary option grant and stock issuance programs will immediately vest, except to the extent Discovery Partners' repurchase rights with respect to those shares are assigned to the successor corporation.

The compensation committee has discretion to structure one or more options under the discretionary option grant program so those options will vest as to all the option shares in the event those options are assumed in connection with the acquisition of Discovery Partners by merger or sale of substantially all of its assets but the optionee's service with Discovery Partners or the acquiring entity is subsequently involuntarily terminated within a designated period not to exceed 18 months. The vesting of outstanding shares under the stock issuance program may be accelerated upon similar terms and conditions.

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The compensation committee also has the authority to grant options under the discretionary option grant program which will immediately vest in the event Discovery Partners is acquired by merger or sale of substantially all of its assets, whether or not those options are assumed by the successor corporation.

Outstanding options under the salary investment, automatic option and director fee option grant programs will immediately vest if Discovery Partners is acquired by a merger or asset sale or if there is a successful tender offer for more than 50% of Discovery Partners' outstanding voting stock or a change in the majority of Discovery Partners' board of directors through one or more contested elections.

Limited stock appreciation rights, which may be granted to one or more officers as part of their option grants under the discretionary option grant program, and options granted under the salary investment option grant program and the automatic and director fee option grant programs, may be surrendered to Discovery Partners upon the successful completion of a hostile tender offer for more than 50% of Discovery Partners' outstanding voting stock. In return for the surrendered option, the optionee will be entitled to a cash distribution from Discovery Partners in an amount per surrendered option share based upon the highest price per share of Discovery Partners common stock paid in that tender offer.

The options currently outstanding under the 1995 Plan will immediately vest in the event Discovery Partners is acquired by merger or sale of substantially all of its assets, unless those options are assumed by the acquiring entity or Discovery Partners repurchase rights with respect to any unvested shares subject to those options are assigned to such entity.

Salary Investment Option Grant Program. In the event the compensation committee elects to activate the salary investment option grant program for one or more calendar years, each of Discovery Partners' executive officers and other highly compensated employees selected for participation may elect, prior to the start of the calendar year, to reduce his or her base salary for that calendar year by a specified dollar amount not less than \$10,000 nor more than \$50,000. Each selected individual who files such a timely election will automatically be granted, on the first trading day in January of the calendar year for which his or her salary reduction is to be in effect, an option to purchase that number of shares of common stock determined by dividing the salary reduction amount by two-thirds of the fair market value per share of Discovery Partners common stock on the grant date. The option will be exercisable at a price per share equal to one-third of the fair market value of the option shares on the grant date. As a result, the option will be structured so that the fair market value of the option shares on the grant date less the exercise price payable for those shares will be equal to the amount by which the optionee's salary is reduced under the program. The option will become exercisable in a series of 12 equal monthly installments over the calendar year for which the salary reduction is to be in effect.

Automatic Option Grant Program. The automatic option grant program provides that:

Each non-employee board member will automatically receive an option grant for 25,000 shares of common stock on the date such individual joins the Discovery Partners board of directors, provided such individual has not been in Discovery Partners' prior employ.

In addition, on the date of each annual stockholders meeting, each non-employee board member who is to continue to serve as a non-employee board member will automatically be granted an option to purchase 10,000 shares of common stock, provided such individual has served on the board for at least 6 months.

Each automatic grant will have an exercise price per share equal to the fair market value per share of Discovery Partners common stock on the grant date and will have a term of 10 years, subject to earlier termination following the optionee's cessation of board service. The option will be immediately exercisable for all of the option shares; however, Discovery Partners may repurchase, at the exercise price paid per share, any shares purchased under the option which are not vested at the time of the optionee's cessation of board service.

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The shares subject to each initial 25,000-share automatic option grant will vest in a series of 4 successive annual installments upon the optionee's completion of each year of board service over the 4-year period measured from the grant date. The shares subject to each annual 10,000-share automatic option grant will vest upon the optionee's completion of one year of board service measured from the grant date. However, the shares will immediately vest in full upon certain changes in control or ownership or upon the optionee's death or disability while a board member.

Pursuant to the 2000 Plan as of the closing date of the merger:

Each non-employee director who serves on the board of directors of the combined company upon the closing of the merger, and following the closing of the merger, each new director, on the date of his or her election to the board of directors, will receive a non-statutory stock option to purchase 112,500 shares of common stock, which is referred to as the initial option. Shares of common stock subject to the initial option will become exercisable as to 37,500 of the shares underlying such initial option on the first anniversary of the grant date and the remainder will be exercisable in quarterly installments of 9,375 shares beginning at the end of the first quarter thereafter, provided that the holder of the initial option continues to serve as a director. Each non-employee director serving as a director on the third anniversary of (a) the closing of the merger, in case of directors serving on the board of directors of the combined company upon the closing of the merger, or (b) his or her election to the board, in the case of directors elected after the closing of the merger, will receive a non-statutory stock option to purchase 22,500 shares of common stock, referred to as an annual option, on the date of the first annual meeting of stockholders following such third anniversary and on the date of each annual meeting of stockholders thereafter. Shares of common stock subject to the annual option will be exercisable in equal quarterly installments of 5,625 shares beginning at the end of the first quarter after the date of grant, provided that the holder of the annual option continues to serve as a director.

The non-employee director who serves as the lead outside director of the combined company will receive an additional non-statutory stock option grant to purchase 37,500 shares of common stock upon the date of commencement of service in such position and upon each anniversary thereafter. Shares of common stock subject to each such option will be exercisable in equal quarterly installments of 9,375 shares beginning at the end of the first quarter after the date of grant, provided that the holder of such option continues to serve as the lead outside director.

The non-employee director who serves as the lead research and development director and the non-employee director who serves as the chair of the audit committee will each receive an additional non-statutory stock option grant to purchase 15,000 shares of common stock upon the date of commencement of service in such position and upon each anniversary thereafter. Shares of common stock subject to such options will be exercisable in equal quarterly installments of 3,750 shares beginning at the end of the first quarter after the date of grant, provided that the holder of the option continues to serve as the lead research and development director or the chair of the audit committee, as applicable.

The non-employee director who serves as the chair of compensation committee and the non-employee director who serves as the chair of the corporate governance committee will each receive an additional non-statutory stock option grant to purchase 7,500 shares upon the commencement of service in such position and upon each anniversary thereafter. Shares of common stock subject to such options will be exercisable in equal quarterly installments of 1,875 shares beginning at the end of the first quarter after the date of grant, provided that the holder of the option continues to serve as the chair of the compensation committee or the chair of the corporate governance committee, as applicable.

Director Fee Option Grant Program. Should the director fee option grant program be activated in the future, each non-employee board member will have the opportunity to apply all or a portion of any cash retainer fee for the year to the acquisition of a below-market option grant. The option grant will automatically be made on the first trading day in January in the year for which the retainer fee would otherwise be payable in cash. The

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option will have an exercise price per share equal to one-third of the fair market value of the option shares on the grant date, and the number of shares subject to the option will be determined by dividing the amount of the retainer fee applied to the program by two-thirds of the fair market value per share of Discovery Partners common stock on the grant date. As a result, the option will be structured so that the fair market value of the option shares on the grant date less the exercise price payable for those shares will be equal to the portion of the retainer fee applied to that option. The option will become exercisable in a series of 12 equal monthly installments over the calendar year for which the fee election is to be in effect. However, the option will become immediately exercisable for all the option shares upon the optionee's death or disability while serving as a board member.

Federal Income Tax Consequences

The following is a summary of the United States federal income tax consequences that generally will arise with respect to awards granted under the 2000 Plan. This summary is based on the federal tax laws in effect as of the date of this joint proxy statement/prospectus. The compensation committee intends to structure all awards granted under the 2000 Plan to be exempt from or compliant with Section 409A of the Code.

Incentive Stock Options

A participant will not have income upon the grant of an incentive stock option. Also, except as described below, a participant will not have income upon exercise of an incentive stock option if the participant has been employed by Discovery Partners or its corporate parent or a 50% or more-owned corporate subsidiary at all times beginning with the option grant date and ending three months before the date the participant exercises the option. If the participant has not been so employed during that time, then the participant will be taxed as described below under Nonstatutory Stock Options. The exercise of an incentive stock option may subject the participant to the alternative minimum tax.

A participant will have income upon the sale of the stock acquired under an incentive stock option at a profit (if sales proceeds exceed the exercise price). The type of income will depend on when the participant sells the stock. If a participant sells the stock more than two years after the option was granted and more than one year after the option was exercised, then all of the profit will be long-term capital gain. If a participant sells the stock prior to satisfying these waiting periods, then the participant will have engaged in a disqualifying disposition and a portion of the profit will be ordinary income and a portion may be capital gain. This capital gain will be long-term if the participant has held the stock for more than one year and otherwise will be short-term. If a participant sells the stock at a loss (sales proceeds are less than the exercise price), then the loss will be a capital loss. This capital loss will be long-term if the participant held the stock for more than one year and otherwise will be short-term.

Nonstatutory Stock Options

A participant will not have income upon the grant of a nonstatutory stock option. A participant will have compensation income upon the exercise of a nonstatutory stock option equal to the value of the stock on the day the participant exercised the option less the exercise price. Upon sale of the stock, the participant will have capital gain or loss equal to the difference between the sales proceeds and the value of the stock on the day the option was exercised. This capital gain or loss will be long-term if the participant has held the stock for more than one year and otherwise will be short-term.

Restricted Stock Awards

A participant will not have income upon the grant of restricted stock unless an election under Section 83(b) of the Code is made within 30 days of the date of grant. If a timely 83(b) election is made, then a participant will have compensation income equal to the value of the stock less the purchase price. When the stock is sold, the

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participant will have capital gain or loss equal to the difference between the sales proceeds and the value of the stock on the date of grant. If the participant does not make an 83(b) election, then when the stock vests the participant will have compensation income equal to the value of the stock on the vesting date less the purchase price. When the stock is sold, the participant will have capital gain or loss equal to the sales proceeds less the value of the stock on the vesting date. Any capital gain or loss will be long-term if the participant held the stock for more than one year and otherwise will be short-term.

Stock Appreciation Rights

Generally, a participant will not have income upon the grant of a stock appreciation right. A participant generally will recognize compensation income upon the exercise of a stock appreciation right equal to the amount of the cash and the fair market value of any stock received. Upon the sale of the stock, the participant will have capital gain or loss equal to the difference between the sales proceeds and the value of the stock on the day the stock appreciation right was exercised. This capital gain or loss will be long-term if the participant held the stock for more than one year and otherwise will be short-term.

Tax Consequences to Discovery Partners

There will be no tax consequences to Discovery Partners except that Discovery Partners will be entitled to a deduction when a participant has compensation income. Any such deduction will be subject to the limitations of Section 162(m) of the Code.

Vote Required; Recommendation of the Board of Directors

The affirmative vote of the holders of a majority of Discovery Partners common stock having voting power present in person or represented by proxy at the Discovery Partners special meeting is required for approval of Discovery Partners Proposal No. 5.

THE DISCOVERY PARTNERS BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT DISCOVERY PARTNERS STOCKHOLDERS VOTE FOR DISCOVERY PARTNERS PROPOSAL NO. 5 TO AMEND THE DISCOVERY PARTNERS 2000 STOCK INCENTIVE PLAN.

Discovery Partners Proposal No. 6: Approval of Possible Adjournment of the Discovery Partners Special Meeting

If Discovery Partners fails to receive a sufficient number of votes to approve Discovery Partners Proposal Nos. 1 and 2, Discovery Partners may propose to adjourn the Discovery Partners special meeting, for a period of not more than 30 days, for the purpose of soliciting additional proxies to approve Discovery Partners Proposal Nos. 1 and 2. Discovery Partners currently does not intend to propose adjournment at the Discovery Partners special meeting if there are sufficient votes to approve Discovery Partners Proposal Nos. 1 and 2. The affirmative vote of the holders of a majority of the Discovery Partners common stock having voting power present in person or represented by proxy at the Discovery Partners special meeting is required to approve the adjournment of the Discovery Partners special meeting for the purpose of soliciting additional proxies to approve Discovery Partners Proposal Nos. 1 and 2.

THE DISCOVERY PARTNERS BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT DISCOVERY PARTNERS STOCKHOLDERS VOTE FOR DISCOVERY PARTNERS PROPOSAL NO. 6 TO ADJOURN THE SPECIAL MEETING, IF NECESSARY, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF DISCOVERY PARTNERS PROPOSAL NOS. 1 AND 2.

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MATTERS BEING SUBMITTED TO A VOTE OF INFINITY STOCKHOLDERS

Infinity Proposal No. 1: Adoption of the Merger Agreement

At the Infinity special meeting and any adjournment or postponement thereof, Infinity 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 Infinity. Upon the consummation of the merger, Infinity will continue as the surviving corporation and will be a wholly owned subsidiary of Discovery Partners. 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

The adoption of the merger agreement requires the affirmative vote of the holders of (a) a majority of the shares of Infinity common stock and Infinity preferred stock, outstanding as of the record date and entitled to vote thereon, voting together as a single class and on an as-converted basis, and (b) a majority of the shares of Infinity preferred stock, outstanding as of the record date and entitled to vote thereon, voting separately as a single class and on an as-converted basis.

INFINITY S BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE FOR THE ADOPTION OF THE MERGER AGREEMENT

Infinity Proposal No. 2: Adjournment of the Infinity 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 Infinity special meeting and any adjournment or postponement thereof, Infinity stockholders will be asked to consider and vote upon a proposal to adjourn the Infinity 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 Infinity 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 Infinity special meeting.

INFINITY S BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE FOR THE ADJOURNMENT OF THE INFINITY SPECIAL MEETING, IF NECESSARY, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF THE ADOPTION OF THE MERGER AGREEMENT.

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DISCOVERY PARTNERS BUSINESS

Recent Events

As discussed above, Discovery Partners has entered into a merger agreement with merger sub and Infinity pursuant to which Infinity will merge with and into merger sub, with Infinity as the surviving corporation, becoming a wholly owned subsidiary of Discovery Partners.

Following execution of the merger agreement, Discovery Partners solicited bids from potential purchasers for its operating assets, which Discovery Partners was seeking to sell or otherwise dispose of in one or more strategic transactions. In connection with that process, Discovery Partners received varying degrees of interest for some or all of its operating assets from different potential buyers, and ultimately determined to enter into exclusive negotiations with Galapagos, based on Galapagos' willingness to acquire all of Discovery Partners' material operating assets and assume all of its related liabilities, its interest in consummating its purchase of Discovery Partners' operating assets quickly, its existing cash resources, and its proposed purchase price.

On June 12, 2006, Discovery Partners, Galapagos and Biofocus entered into a Stock and Asset Purchase Agreement, which is referred to in this joint proxy statement/prospectus as the stock and asset purchase agreement. The stock and asset purchase agreement is filed as an exhibit to the registration statement of which this joint proxy statement/prospectus is a part. Under the stock and asset purchase agreement, Galapagos or Biofocus or an affiliate of Biofocus acquired all of the outstanding equity interests or capital stock of Discovery Partners International AG, a Swiss corporation, ChemRx Advanced Technologies, Inc., a Delaware corporation, Xenometrix, Inc., a Delaware corporation, and Discovery Partners International, L.L.C., a Delaware limited liability company, each of which are Discovery Partners' subsidiaries. Biofocus or an affiliate of Biofocus also acquired, or will acquire, certain specified assets that were or are held at the Discovery Partners parent level, such as intellectual property relating to Discovery Partners' patent license agreement with Abbott Laboratories, trademarks relating to the branding and names of the subsidiary companies that were sold and all patents related to technologies used in the businesses sold, Discovery Partners' information technology infrastructure, financial/accounting infrastructure, office furniture and other associated equipment, and certain contracts that were or are held at the Discovery Partners parent level and were or will be assigned to Biofocus or the applicable Biofocus affiliate, such as Discovery Partners' lease for its San Diego facility, its patent license agreement with Abbott Laboratories and its agreement with The National Institutes of Mental Health. Discovery Partners also continues to maintain its interest in the following inactive subsidiaries: Structural Proteomics, Inc., Systems Integration Drug Discovery Company, Inc., and Irori Europe Ltd. There are no operating assets or liabilities associated with the remaining subsidiaries other than immaterial intercompany payables and receivables. Under the stock and asset purchase agreement, Galapagos and Biofocus and the applicable Biofocus affiliate paid \$5.4 million in cash for the stock and assets acquired, with adjustments based on specified working capital balances and Discovery Partners International AG's cash balances as of June 30, 2006, and agreed to assume all related liabilities. The transactions contemplated by the stock and asset purchase agreement closed on July 5, 2006, leaving Discovery Partners with no remaining operating assets that it is seeking to sell or otherwise dispose. The closing of the transactions contemplated by the stock and asset purchase improved Discovery Partners' net cash balance, as calculated pursuant to the merger agreement, at the closing of the merger by providing Discovery Partners with \$5.4 million in cash. The closing of that transaction also reduced the amount of liabilities and liquidation costs that would otherwise have been deducted in calculating Discovery Partners' net cash balance at the closing of the merger, which Discovery Partners estimated to be in excess of \$15 million which were related to the items indicated as deductions to Discovery Partners' net cash at closing as described in the merger agreement. One of the conditions to the closing of the merger is a requirement that Discovery Partners' net cash balance, as calculated pursuant to the merger agreement, at the closing of the merger be at least \$60 million.

In the stock and asset purchase agreement, Discovery Partners, Galapagos and Biofocus agreed that certain assets that are essential to Discovery Partners continuing to function as a public reporting company prior to the closing of the merger with Infinity, such as Discovery Partners' information technology infrastructure and

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financial/accounting infrastructure, will not be transferred concurrently with the closing of the stock and asset purchase agreement, but, rather, would be transferred from Discovery Partners to Biofocus or the applicable Biofocus affiliate promptly following the closing of the merger, at which time Infinity's information technology and financial/accounting infrastructure will be put into effect for the combined company. Discovery Partners, Galapagos and Biofocus also agreed that, to the extent any contract to be assigned from Discovery Partners to Biofocus or the applicable Biofocus affiliate was not assigned at closing of the transactions contemplated by the stock and asset purchase agreement because any required consent had not at that time been obtained or any such assignment would be otherwise ineffective, each party would take all commercially reasonable action to complete an assignment after the closing of the transactions contemplated by the stock and asset purchase agreement or as may be permitted under the terms of the applicable contract in order to arrange for Biofocus or the applicable Biofocus affiliate to obtain all the benefits of and be responsible for all of the liabilities under such contract. In connection with the closing of the transactions contemplated by the stock and asset purchase agreement, Discovery Partners and its subsidiaries' employees became employees of Galapagos and Biofocus, except for 16 Discovery Partners general and administrative personnel.

In addition to the material terms of the stock and asset purchase agreement described above, the stock and asset purchase agreement includes the following terms:

representations and warranties for Discovery Partners that are comparable to those made by Discovery Partners in the merger agreement, with limited exceptions to reflect structuring and other differences between the merger and the transactions contemplated by the stock and asset purchase agreement, which all expire on the date of the Infinity special meeting of stockholders to approve the merger;

limited representations and warranties for Galapagos customary for a purchaser in an acquisition where the consideration for the acquired stock and/or assets is cash, which all expire on the date of the Infinity special meeting of stockholders to approve the merger;

pre-closing covenants relating to the operation of the businesses of Discovery Partners' subsidiaries that are comparable to those that Discovery Partners is subject to under the merger agreement;

closing conditions for each of Discovery Partners, Galapagos and Biofocus that are limited to the accuracy of each party's representations and warranties, subject to materiality qualifiers that are identical to those contained in the merger agreement, performance by each party in all material respects of its obligations under the stock and asset purchase agreement that are required to be performed on or prior to the closing date for the transactions contemplated by the stock and asset purchase agreement, and no injunction being in effect that prohibits the transactions contemplated by the stock and asset purchase agreement;

termination rights for each of Discovery Partners, Galapagos and Biofocus that are limited to termination by mutual agreement or at any time after August 15, 2006;

termination fees of \$1.6 million plus expenses payable by Galapagos and/or Biofocus to Discovery Partners in the event that the stock and asset purchase agreement is terminated by Discovery Partners because Galapagos or Biofocus fails to satisfy one of Discovery Partners' closing conditions due to inaccuracies in either of Galapagos' or Biofocus' representations and warranties or because either fails to perform obligations that it is required to perform on or prior to closing under the stock and asset purchase agreement, or the stock and asset purchase agreement is terminated by Galapagos or Biofocus after August 15, 2006 because an injunction has been entered against either of them that prohibits the transactions contemplated by the stock and asset purchase agreement;

indemnification by Discovery Partners for the benefit of Galapagos and Biofocus and related parties for damages suffered by any of them due to breaches by Discovery Partners of its representations and warranties, material breaches of its covenants contained in the stock and asset purchase agreement, or lawsuits or other proceedings challenging or seeking to restrain or prohibit the merger, all of which obligations expire on the date of the Discovery Partners special meeting of stockholders to approve the merger;

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indemnification by Galapagos and Biofocus for the benefit of Discovery Partners and related parties for damages suffered by any of them due to breaches by either of Galapagos or Biofocus of their representations and warranties, material breaches by either of their covenants contained in the stock and asset purchase agreement, or the failure by either of Galapagos or Biofocus to satisfy any assumed liabilities under the stock and asset purchase agreement, which obligations, in the case of the indemnity obligation for assumed liabilities, survive the closing of the transactions contemplated by the stock and asset purchase agreement;

the indemnification provisions provide for a \$175,000 deductible and a \$1.6 million maximum aggregate liability for each of Discovery Partners and Galapagos and Biofocus, considered together, with respect to the parties to whom they owe indemnification obligations; and

the stock and asset purchase agreement is governed by Belgian law.

Because the transactions contemplated by the stock and asset purchase agreement closed on July 5, 2006, many of the provisions described above are no longer effective.

Corporate Information

Discovery Partners was incorporated in California on March 22, 1995 under the name IRORI, and, in 1998, it changed its name to Discovery Partners International, Inc. In July 2000, Discovery Partners reincorporated in Delaware.

Web Site Access to SEC Filings

Discovery Partners maintains an Internet website at www.discoverypartners.com. Discovery Partners 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 Discovery Partners electronically files such material with, or furnishes it to, the SEC. The public may also read and copy any materials that Discovery Partners 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.

Table of Contents**INFINITY S BUSINESS****Overview**

Infinity's mission is to discover, develop, and deliver to patients first-in-class or best-in-class medicines for the treatment of cancer and related conditions. A first-in-class drug refers to the first approved or marketed drug within a class of drug candidates that operate through a particular target or molecular mechanism in the body to affect a specific disease. A best-in-class drug refers to the drug, among all drugs within a class of drugs that operate through a particular target or molecular mechanism in the body to affect a particular disease, that is superior to all such other drugs in the class by virtue of its superior efficacy, superior safety, ease of administration or some combination of the foregoing. Infinity has built a pipeline of innovative product candidates for multiple cancer indications, all of which represent proprietary applications of Infinity's expertise in small molecule drug technologies. All of Infinity's product candidates were discovered in-house by its scientists. Infinity believes that its proprietary small molecule technologies, team of highly experienced management and scientists, and its corporate culture form the basis of its potential long-term competitive advantage in seeking to deliver first-in-class and best-in-class medicines. Infinity's lead product candidate is in two Phase I clinical trials and its second most advanced program is expected to advance a product candidate into the clinic in 2007.

Infinity's lead product candidate, IPI-504, is currently being studied in two Phase I clinical trials. Both trials are disease-focused and are targeting cancers that are refractory, or resistant, to other treatments. The first clinical trial is evaluating IPI-504 in patients who have multiple myeloma, a type of blood cancer; the second is evaluating the compound in patients who have gastrointestinal stromal tumors. Infinity currently expects Phase II clinical trials of IPI-504 to begin by early 2007. IPI-504 is being developed as an inhibitor of heat shock protein 90, referred to as Hsp90. Hsp90 is known to stabilize proteins expressed by cancer-causing genes, known as oncogenes, that are critical to cancer cell proliferation and survival. Stabilization of these proteins allows cancer cells to evade apoptosis, the body's normal mechanism of programmed cell death in which cells commit suicide when their continued existence might otherwise be harmful to the organism. IPI-504 has demonstrated activity in a wide variety of preclinical models of hematologic and solid tumors. In other words, in a variety of mouse xenografts, which refer to mice that bear cancerous human tissue or blood cells, IPI-504 has been shown to slow the growth of tumors, including in preclinical mouse xenograft models of multiple myeloma, breast cancer, prostate cancer and lung cancer. Infinity believes that its small molecule technologies and expertise have resulted in a drug candidate with the potential to be a best-in-class Hsp90 inhibitor.

Infinity's next most advanced program is directed against the Hedgehog cell signaling pathway, which Infinity refers to as the Hedgehog pathway. The Hedgehog pathway has been implicated in many aggressive cancers, including certain cancers of the pancreas, prostate, lung, breast, and brain. Normally, the Hedgehog pathway regulates tissue and organ formation during embryonic development. However, when abnormally activated during adulthood, the Hedgehog signaling pathway is believed to play a central role in allowing the proliferation and survival of certain cancer-causing cells. Infinity believes the application of its chemistry expertise has resulted in drug candidates that have the potential to be systemic inhibitors of the Hedgehog pathway, actively interfering with its deleterious effects.

The goal of Infinity's third program, which is in the discovery stage of research, and is being undertaken in collaboration with Novartis, is to identify inhibitors of the Bcl-2/Bcl-xL family of proteins. Bcl-2 and its related protein Bcl-xL act as brakes on programmed cell death and are key regulators of apoptosis. Many cancers have higher than normal levels of Bcl-2 and Bcl-xL. This allows them to evade apoptosis and, for example, become resistant to chemotherapy. Infinity is seeking to develop compounds that target Bcl-2/Bcl-xL to inhibit its protective effect on cancer cells for the treatment of a broad range of cancers. Infinity also has several other development programs in the discovery research stage that target cancer, hyperproliferative disorders, and related conditions.

Infinity's expertise in synthetic and natural products chemistry has resulted in the development of insights which it believes have the potential to aid in the rapid design of new drugs and the creation of a novel and

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sustainable drug discovery capability. For example, Infinity's proprietary chemistry technology, which it refers to as diversity oriented synthesis, consists of collections of novel, diverse, natural product-like synthetic compounds for drug discovery. Infinity believes these collections enable it to discover novel drugs directed to biological targets that have not been amenable to traditional chemistries.

Infinity has entered into three technology access alliances relating to its diversity oriented synthesis technologies that have provided it with over \$62.5 million of up-front license fees, equity payments and other near-term committed revenues and, with respect to one such alliance, potential milestone and royalty payments upon successful commercial development of select products resulting from such alliance. Pursuant to these alliances, Novartis Pharmaceuticals International, Ltd., Amgen Inc. and Johnson & Johnson Pharmaceutical Research & Development, a division of Janssen Pharmaceutica N.V., have been granted non-exclusive rights to use subsets of Infinity's collection of diversity oriented synthesis compounds in their own internal drug discovery programs.

Infinity has also entered into an alliance with Novartis Institutes for BioMedical Research to discover, develop and commercialize drugs targeting the family of Bcl-2 proteins. Under the terms of the agreement, Novartis has paid Infinity \$15.0 million in up-front license fees, \$5.0 million in equity payments, and has committed research funding of approximately \$10.0 million over the initial two-year research term. Assuming the strategic alliance continues for its full term and specified research, development and commercialization milestones are achieved for multiple products for multiple indications, Novartis has also agreed to make milestone payments totalling over \$370.0 million, such that total payments to Infinity could exceed \$400.0 million. In addition, Infinity is entitled to receive royalties upon successful commercialization of any products developed in the alliance. The two companies will conduct joint research to identify molecules for clinical development and, thereafter, Infinity may, under specified conditions, participate in clinical development, which will be led and paid for by Novartis worldwide. Upon commercialization, Infinity has an option to co-detail Bcl inhibitor products in the United States, with Infinity's detailing costs to be reimbursed by Novartis.

Business Strategy

Infinity's mission is to discover, develop and deliver to patients important new medicines for the treatment of cancer and related conditions. Infinity intends to achieve this goal by executing on a strategy to:

Focus Infinity's efforts on cancer and related conditions. Infinity has focused the majority of its efforts in the field of cancer, referred to as oncology, because Infinity expects this focus will enable it to develop and build expertise and critical mass. Furthermore, Infinity has chosen to strategically focus its efforts in oncology for scientific, regulatory and commercial reasons.

Scientific. Infinity believes that focusing on cancer provides it with an opportunity to pursue drug targets where a strong scientific rationale for their potential in treating disease exists but where drugs that block these targets have not yet been approved. In the last decade, advances in the basic molecular understanding of the pathways that drive the development of a cancer cell and protect it from apoptosis have grown. Many of the field's most important drug targets have only recently been discovered and new approaches to drug development continue to evolve. However, many of the most scientifically compelling drug targets that have emerged in the past decade have proven difficult to disrupt with conventional chemical and biological drug development approaches. In some cases, this is because the targets operate through protein-protein interactions which have a tight binding affinity and large binding area rendering the targets less amenable to disruption with conventional small molecule drug approaches. Infinity believes that its proprietary small molecule technologies and the depth, breadth and experience of its scientific team provide a competitive advantage for it in overcoming the hurdles of cancer drug development.

Regulatory. Because of the high morbidity caused by existing drugs and the life-threatening nature of cancer, in general the regulatory hurdles for both development and commercialization of drugs in the

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field of cancer are less stringent relative to chronic care diseases. Furthermore, unlike traditional clinical development, the development of cancer drugs often begins with Phase I clinical trials in patients as opposed to healthy volunteers, providing the opportunity for earlier detection of biologic activity. Moreover, under U.S. Food and Drug Administration, or FDA, regulations and guidelines the opportunity exists under certain circumstances to bring drugs to market quickly under FastTrack designation, accelerated approval and priority review. For additional information regarding these FDA programs, see Government Regulation FDA Requirements for New Drug Compounds in this section.

Commercial. Infinity believes that the large unmet medical need in oncology remains a significant market opportunity. Recently approved oncology drugs have experienced significant sales growth despite addressing a relatively small proportion of the cancer patient population. The American Cancer Society estimates that there will be approximately 1.4 million newly diagnosed cases of cancer in the U.S. in 2006 and that over half a million people in the U.S. will die of cancer in 2006.

Pursue drug targets that are well-credentialed, but not well-trodden. Infinity selects drug targets that serve important unmet medical needs in cancer treatment that are supported by strong science and clearly defined clinical development paths. Infinity selects drug targets that, despite their high level of scientific validation, or credentialing, have not been adequately served by existing chemistries and generally do not have marketed drugs or late stage clinical product candidates directed against them. This enables Infinity the opportunity to develop either a first-in-class or best-in-class medicine. For example, it has now been well established in the scientific literature that a variety of cancer cells are highly dependent on Hsp90 to maintain proper functioning of key cancer proteins such as Bcr-Abl, c-Kit, and EGFR. Each of these proteins is a well validated oncology target for the treatment of chronic myelogenous leukemia, gastrointestinal stromal tumors and non-small cell lung cancer, respectively. However, despite Hsp90's high level of scientific validation as a drug target, Infinity believes that competitive drug candidates that target Hsp90 are lacking in certain desirable pharmaceutical properties. Furthermore Infinity does not believe there are any drugs targeting Hsp90 in Phase III clinical trials or currently on the market for the treatment of cancer.

Leverage Infinity's small molecule technologies against these targets to discover novel drugs not otherwise available through traditional chemistries. Infinity is seeking to use its expertise in synthetic chemistry, natural products chemistry and diversity oriented synthesis to discover novel drugs in areas underserved by traditional small molecule chemistries. Infinity's strength in synthetic and natural products chemistry has resulted in the development of insights which it believes have the potential to aid in the rapid design of new drugs and the creation of a novel and sustainable drug discovery capability. For example, Infinity's proprietary, diversity oriented synthesis platform is a system to create collections of innovative, diverse and natural product-like compounds for drug discovery. These collections are intended to enable Infinity to discover novel drugs directed to biological targets that are not amenable to inhibition with traditional chemistries. For example, Bcl-2 and the related protein Bcl-xL are well described in the cancer literature for their ability to allow cancer cells which might otherwise be harmful to the organism, to become resistant to chemotherapy and ignore the signals that they should commit suicide. However, despite extensive efforts over the last decade by many companies, the pharmaceutical industry has been unsuccessful in developing drugs that block the effects of Bcl-2 and Bcl-xL proteins in cancer. Infinity applied its diversity oriented synthesis small molecule technology to this target family and has identified compounds which it believes to be both selective and potent. Infinity has also applied insights derived from its expertise in natural products and synthetic chemistry to discover its lead product candidate, IPI-504.

Develop drugs with a focus on the fastest path to product approval, while in parallel pursuing the broadest market opportunities. Infinity's clinical development strategy is designed to maximize the path to value creation for an emerging company. Recognizing the importance of both early clinical proof of concept and the value of a marketed product, Infinity intends to focus first on the fastest path to product approval. In parallel, Infinity also focuses on broader market expansion opportunities. This means that Infinity prioritizes the scientific validation, clinical feasibility and level of medical need in its decision process. Whenever possible, Infinity seeks

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to incorporate the use of surrogate markers in its clinical trials to observe early biological activity. The decision to focus in oncology may afford Infinity, in some cases, the potential strategic opportunity for accelerated FDA approval, FastTrack Designation, and/or priority review.

Establish strategic alliances to accelerate and maximize the potential of Infinity's products while preserving significant commercial rights.

Infinity believes that its long-term value will be driven by the medicines it creates. Infinity's strategy includes seeking to reach key points of value recognition in its programs before entering into strategic alliances. Infinity believes that in this way significant commercial value in the products can be retained while obtaining strategic assistance to accelerate and maximize the overall potential of its programs. To date, Infinity has entered into one such product development alliance relating to its Bcl program with Novartis. Infinity's strategic alliance strategy also includes entering into alliances that provide shared access to technologies that can maximize its discovery platform for Infinity's internal product development programs as well as provide significant funding for its product development programs. To date, Infinity has entered into three such technology access alliances with Amgen, Johnson & Johnson and Novartis. Infinity intends to pursue other strategic alliances as appropriate.

Attract, retain, and develop world-leading scientists, clinicians, and business people. Infinity believes that its people and the culture in which they operate are key to its competitive advantage. Embracing a culture of citizen-ownership in which its employees work as a community with the objective of bringing important new medicines to patients, Infinity aspires to empower each individual to think innovatively and achieve his or her fullest potential. Of the approximately 100 employees in the company, approximately half have Ph.D. or M.D. degrees, and over 60 percent of Infinity's employees have advanced degrees. Leaders within the company have an extensive track record of participation in discovering, developing and commercializing first-in-class and best-in-class medicines. Prior to joining Infinity, key leaders of Infinity have been directly involved in the discovery and development of first- and best-in-class new medicines such as Viramune®, Velcade® and Risperdal Consta®. Infinity leverages its internal scientific expertise by actively engaging external scientific advisors to participate in project team meetings, departmental meetings and formal scientific reviews. Infinity also reaches out extensively to academic thought leaders to establish collaborations that help extend the reach of its research efforts.

Product Development Programs

Infinity focuses its product development efforts in the treatment of cancer and related conditions. Within the field of cancer, Infinity is concentrating its efforts in the following areas:

Protein regulation;

Altered signaling; and

Restoration of apoptosis.

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Infinity's current product development programs are illustrated in the following chart:

In the forgoing table, lead optimization means that molecules selected out of a screening process are being optimized based on potency and specificity against the drug target as well as for pharmaceutical properties such as solubility, metabolism and absorption. Preclinical development means that the product candidate is undergoing investigational new drug application, or IND, enabling studies, including toxicology studies performed under good laboratory practices suitable for inclusion in an IND filing. Phase I means an IND has been filed with the FDA and that the product candidate is in clinical trials to evaluate its safety and tolerability. Phase II means that the product candidate is in clinical trials for determination of its efficacy in a defined patient population. In some cases, Phase II clinical trials can serve as the basis for accelerated approval. Phase III typically means the product candidate is in additional clinical trials for safety and efficacy in an expanded population.

Infinity is developing its lead product candidate, IPI-504, for the treatment of refractory multiple myeloma and gastrointestinal stromal tumors and intends to conduct additional clinical trials of IPI-504 in additional cancers. Infinity is also developing preclinical compounds that are directed against the Hedgehog pathway which is implicated in certain cancers, and is seeking to advance its Bcl inhibitor program, which is currently in lead optimization in collaboration with Novartis. In addition, Infinity has other discovery stage candidates for the treatment of cancer, hyperproliferative disorders and related conditions. In particular, Infinity expects to:

complete its Phase I clinical trials of IPI-504 for multiple myeloma and gastrointestinal stromal tumors in 2006 and, if supported by favorable data from the Phase I clinical trials, initiate Phase II clinical trials by early 2007;

initiate clinical trials of a Hedgehog pathway inhibitor in 2007; and

advance Infinity's discovery stage research of Bcl inhibitors and seek to begin preclinical development of one or more Bcl drug candidates in 2007.

In addition to the above programs, Infinity has efforts directed to a number of additional biological targets to support its preclinical pipeline.

Table of Contents***Protein Regulation/IPI-504***

Hsp90 is an emerging therapeutic target of interest for the treatment of cancer. Proteins are the mainstay of structural and signaling elements of all cells. Hsp90 functions to stabilize and maintain the equilibrium of proteins in the cancer cell, thereby allowing a cancer cell to survive and proliferate despite an abundance of misfolded and unstable proteins. Infinity believes that inhibition of Hsp90 has broad therapeutic potential for the treatment of patients with solid tumors and hematologic cancers, including cancers that are resistant to other drugs. Significant advances in the treatment of cancers over the last decade have come from drugs designed to inhibit specific molecular targets, such as Gleevec® for the treatment of chronic myelogenous leukemia and Tarceva® for the treatment of lung and pancreatic cancers. However, over time, these diseases have been shown to become resistant to even these newer drugs. This happens because the targets of these drugs develop mutations or subtly change in structure so that the drug no longer inhibits the target as effectively. This results in the cancer's ability to evade the effect of these targeted therapies. While this is an effective means for the cancer cell to survive, these mutated proteins are less stable and, thus, even more dependent on Hsp90's function for survival. Inhibiting the restorative function of Hsp90 prevents these proteins from working properly and forces the cell into programmed cell death, or apoptosis.

IPI-504 is a novel agent that has been demonstrated in preclinical studies to potently and selectively inhibit Hsp90, thereby killing cancer cells. In these preclinical studies, IPI-504 has demonstrated a broad potential to treat cancer as both a single agent as well as in combination with existing anti-cancer drugs. In addition, IPI-504 preferentially targets and accumulates in tumor tissues, sparing healthy tissues. IPI-504 is currently delivered in an intravenous, water-based formulation. Infinity believes that its superior formulation and pharmacologic properties give IPI-504 an advantage in inhibiting the restorative functions of Hsp90 in cancer cells.

Infinity is currently conducting two Phase I clinical trials with intravenous formulations of IPI-504. In July 2005, Infinity initiated the first of these two Phase I clinical trials in refractory multiple myeloma. The existing first and second line therapies for multiple myeloma, while generally delaying progression of the disease, are effective for a limited period such that virtually all multiple myeloma patients ultimately relapse. As such, there is significant potential for additional treatments. Most of the patients in this Phase I clinical trial have undergone multiple rounds of prior therapies. The scientific rationale for selecting multiple myeloma as a disease indication is supported by the role of Hsp90 in maintaining the equilibrium of proteins in the cancer cell. The myeloma cell is a malignant, or cancerous, plasma B cell that is particularly sensitive to aberrations in protein maintenance. In this clinical trial, Infinity is evaluating the safety, tolerability, and evidence of biologic activity, such as reduction in M protein, a marker of disease burden, of IPI-504 in approximately 40 to 50 patients who have been diagnosed with multiple myeloma and meet the general eligibility criteria for this study. This clinical trial incorporates a dose escalation to identify the maximum tolerated dose of the drug when the drug is administered on days 1, 4, 8, and 11 of a 21-day cycle. The principal investigators for this clinical trial are Dr. Paul Richardson of the Dana Farber Cancer Institute, Dr. Sundar Jagganath of St. Vincent's Comprehensive Cancer Center, Dr. David Siegel of Hackensack University Medical Center, and Dr. Ivan Borrello of the Johns Hopkins Medical Institute.

In December 2005, Infinity initiated a second Phase I clinical trial in refractory gastrointestinal stromal tumors, or GIST. Infinity believes that the scientific rationale for seeking to treat GIST with IPI-504 is clearly defined. In the majority of cases, GIST is caused by a mutation in a protein called c-Kit that renders it oncogenic. Gleevec, an approved and effective agent for the treatment of GIST, works by blocking the active site of oncogenic c-Kit. Over time however, GIST tumors develop additional mutations in oncogenic c-Kit that allow them to become resistant to the effects of Gleevec. Eventually most patients develop resistance to Gleevec via this mechanism. Hsp90 controls the stability of both oncogenic c-Kit as well as drug-resistant oncogenic c-Kit. Furthermore, Gleevec-resistant oncogenic c-Kit is a less stable protein and, thus, is even more dependent on Hsp90 for its pro-cancerous functions, thus providing a strong rationale for inhibiting Hsp90 in this resistant population. In this clinical trial, Infinity is evaluating safety, tolerability, and evidence of biologic activity, such as a reduction in positron emission tomography, or PET, signals, of IPI-504 in approximately 40 to 60 patients who have been diagnosed with GIST and meet the general eligibility criteria for this trial. Infinity is obtaining pre-treatment and post-treatment images to monitor potential disease response to treatment. PET is one particular

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type of image that is being taken which measures the metabolic activity of tumor tissue. PET response has previously been demonstrated to be an early indicator of survival benefit. As in the multiple myeloma clinical trial, the GIST trial also incorporates a dose escalation to identify the maximum tolerated dose of IPI-504 when the drug is administered on days 1, 4, 8, and 11 of a 21-day cycle. The principal investigator for this clinical trial is Dr. George Demetri of the Dana Farber Cancer Institute.

The GIST trial is representative of a class of clinical trials that may demonstrate the broad utility of IPI-504 both as a single agent as well as in combination with targeted therapies. As cancer targets mutate and become drug-resistant, many become more dependent on Hsp90 for their continued pro-cancerous functions. Infinity's GIST trial is focused on patients who have relapsed on Gleevec or are otherwise intolerant of Gleevec. Infinity believes this strategy addresses the highest unmet medical need in GIST and provides a potentially rapid path to product approval should proof of concept be obtained in the Phase I clinical trial and subsequently confirmed in larger trials. Subsequent to the development of IPI-504 as a single agent in GIST, Infinity believes that a strong rationale may exist for combining IPI-504 with Gleevec or the drug Sutent® also directed to oncogenic c-Kit to prolong the duration of effective treatment before disease progression.

Infinity is planning to conduct additional clinical trials in diseases with a similar rationale and profile as GIST. These include Gleevec-resistant chronic myelogenous leukemia, Tarceva-resistant non-small cell lung cancer, and chronic lymphocytic leukemia. Infinity plans to initiate small, focused clinical trials in these patient populations to demonstrate proof of concept for IPI-504 in these diseases by early 2007.

Assuming favorable results from the Phase I multiple myeloma and GIST trials, Infinity currently intends to initiate Phase II clinical trials of IPI-504 in each of these indications by early 2007. Phase II clinical trials sufficient for accelerated approval with Gleevec, Sutent, and Velcade® in these indications involved between 150 and 500 subjects and provide a useful reference point for the number of patients Infinity would expect to enroll in a clinical trial designed for accelerated approval, should Infinity choose to do so.

In parallel with the development of the intravenous formulation of IPI-504, Infinity has identified formulations of IPI-504 that provide high oral bioavailability in animals and Infinity is pursuing the research and development of an oral formulation of IPI-504.

Infinity maintains full commercial rights to the IPI-504 program.

Altered Signaling/Hedgehog Pathway Inhibitors

The Hedgehog cell signaling pathway is normally active during embryonic development in regulating tissue and organ formation. However, aberrant activation of the Hedgehog pathway in adults has been implicated in many of the most deadly cancers, including pancreatic cancer, prostate cancer, small cell lung cancer, breast cancer and certain brain cancers such as glioma. The activation of this pathway is necessary for many of these cancers to proliferate and survive. Furthermore, in addition to the role that the Hedgehog pathway plays in enabling the survival and proliferation of cancer cells, recent evidence also points to an important potential role for the Hedgehog pathway in the maintenance of cancer stem cells. Cancer stem cells are believed to be the progenitor cells that allow tumors to survive despite treatment with conventional chemotherapeutic agents.

Infinity's most advanced drug candidates directed to the Hedgehog cell signaling pathway, which it refers to as the Hedgehog pathway, are novel, proprietary systemically-administered agents that have been demonstrated in preclinical studies to potently and selectively inhibit the Hedgehog pathway. Certain of these agents have demonstrated efficacy in multiple preclinical animal models of cancer, including pancreatic, prostate, and ovarian cancers.

Infinity initiated preclinical, IND-enabling development studies of its Hedgehog pathway inhibitors in late 2005 and expects to initiate clinical trials in 2007. Infinity's clinical development strategy for its Hedgehog

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pathway inhibitors is consistent with identifying the fastest path to product approval while in parallel developing market expansion opportunities. Assuming the FDA accepts Infinity's IND for a Hedgehog pathway inhibitor product candidate, Infinity intends to initiate a clinical trial in patient populations where there is a scientific rationale for treatment. If commenced, the goal of these studies will be to characterize the safety and pharmacokinetic properties of Infinity's Hedgehog pathway inhibitors in a relevant patient population. The clinical trial would likely include multiple protocols for patients with pancreatic cancer, prostate cancer, breast cancer, small cell lung cancer and others. In pancreatic cancer, Infinity is working with Dr. Manuel Hidalgo of Johns Hopkins University; and in small cell lung cancer, with Dr. Charles Rudin, also of Johns Hopkins University.

Pancreatic and small cell lung cancers represent significant unmet medical needs and market potential. In each area, median survival is six to nine months in metastatic disease. In addition to highlighting the need for new treatments, Infinity believes that the effectiveness of a new agent could potentially be demonstrated in a relatively short period of time as a result of the high acuity and aggressive debilitation associated with these diseases. In each of these diseases, there is a standard of care that provides a clear reference point for Infinity's clinical trials.

Assuming the successful filing and acceptance of an IND, the satisfactory completion of a clinical trial, and the concomitant establishment of a recommended dose, Infinity plans to further develop its Hedgehog pathway inhibitors as a treatment for a variety of additional indications, including metastatic prostate cancer, metastatic breast cancer, ovarian cancer, glioma and medulloblastoma. In particular, medulloblastoma in pediatric populations is characterized by a genetic lesion in the Hedgehog pathway and therefore is a potentially attractive candidate for treatment with a Hedgehog pathway inhibitor.

In parallel with the planned development of one or more systemic Hedgehog pathway inhibitors, Infinity believes there is significant potential for the development of topical Hedgehog pathway antagonists. Strong scientific validation supports a potential role for Hedgehog pathway activation in the promotion of basal cell carcinoma, the most prevalent cancer in the United States. Infinity has identified compounds that are highly suitable for topical formulations and has developed pilot formulations for further testing.

Infinity maintains full commercial rights to its Hedgehog pathway program.

Restoration of Apoptosis/Bcl and XIAP Inhibitors

Cancers are characterized by having an unbalanced cell proliferation to cell death ratio, resulting in the net accumulation of cancer cells. The normal level of programmed cell death, or apoptosis, is frequently altered in cancers to affect this ratio which in turn enables cancers to survive when normal cells otherwise would not. The cell's apoptosis pathway is a tightly regulated system of enzymes and inhibitors that serve as a check-and-balance system. Infinity has chosen to target different points in the apoptotic signaling pathway to attempt to restore the cell proliferation to cell death balance by inducing greater cancer cell apoptosis. These targets are Bcl-2 and its related protein Bcl-xL, and XIAP. These targets are involved in protein-protein interactions as their means of regulation. Protein-protein interactions have historically been difficult for traditional small molecules to disrupt. This is because the targets operate through protein-protein interactions which have a tight binding affinity and large binding area rendering the targets less amenable to disruption with conventional small molecule drug approaches. Infinity believes its diversity oriented synthesis platform has allowed Infinity to create molecules with greater three-dimensionality and that are more amenable to disrupting such protein-protein interactions.

Inhibitors of Bcl-2 and Bcl-xL. Bcl-2 and its related protein Bcl-xL act as "brakes" on programmed cell death and are key regulators of apoptosis. Many cancer cells have higher than normal levels of Bcl-2 and Bcl-xL. This allows them to evade apoptosis and, for example, become resistant to chemotherapy. Infinity is seeking to develop compounds that target Bcl-2/Bcl-xL to inhibit its protective effect on cancer cells for the treatment of a

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broad range of cancers. Inhibitors of Bcl-2 are expected to work as single agents to treat B cell malignancies such as follicular lymphoma, chronic lymphocytic leukemia, and diffuse large B cell lymphomas. In addition, inhibitors of Bcl-2 may be administered in combination with chemotherapy and radiation therapy to sensitize a broad range of solid tumors to these treatments.

Although Bcl-2 and Bcl-xL inhibitors have been a significant focus of research and development in the pharmaceutical industry, Bcl-2 and Bcl-xL have largely eluded traditional small molecule chemistries. However, Infinity has successfully developed several different chemical structures derived from its diversity oriented synthesis small molecule libraries that selectively target Bcl-2, inhibiting and disrupting its interactions with other proteins. In biochemical experiments, Infinity's most potent Bcl-2 selective compounds disrupt the interaction of Bcl-2 with its partner proteins at very low, sub-nanomolar, concentrations consistent with the need for a molecule that has a very tight binding affinity to displace the protein-protein interaction. In cellular experiments, Infinity's Bcl-2 inhibitors kill pancreatic cancer cells that are chemo-resistant and have also demonstrated activity against Bcl-2 dependent B cell lymphomas.

Infinity has also developed dual inhibitors that target both Bcl-2 and the related family member Bcl-xL. Infinity's most advanced series targets both proteins at very low, nanomolar, concentrations of compounds. The advantage of targeting both proteins is to target cancers that are dependent on both Bcl-2 and Bcl-xL. These programs are in lead optimization.

In February 2006, Infinity entered into a collaboration agreement with Novartis to discover, develop and commercialize drugs targeting Bcl protein family members for the treatment of a broad range of cancer indications. Under the terms of the agreement, Infinity has granted to Novartis an exclusive, worldwide license to research, develop and commercialize pharmaceutical products that are based upon Infinity's proprietary Bcl inhibitors. Pursuant to the collaboration, Infinity and Novartis are conducting joint research to identify molecules for clinical development. Novartis will have responsibility for clinical development and commercialization of any products based upon compounds discovered under the joint research program. However, Infinity may request to participate in clinical development and if such request is agreed upon by Novartis then Novartis will fund agreed-upon development costs incurred by Infinity. Infinity also has an option to co-detail Bcl inhibitor products in the U.S., with Infinity's detailing costs to be reimbursed by Novartis.

Inhibitors of XIAP. XIAP is another key regulator of apoptosis. Infinity has identified compounds that are capable of disrupting the interaction of XIAP with caspase-3 protein. This triggers cancer cells to enter programmed cell death. These compounds are in early lead optimization.

Diversity Oriented Synthesis Technologies

Infinity's expertise in synthetic and natural products chemistry has resulted in the development of skills that Infinity believes have the potential to enable the rapid design of new drugs and the creation of a novel and sustainable drug discovery platform. Infinity's diversity oriented synthesis chemistry technology consists of methods to create collections of novel, diverse, natural product-like compounds for drug discovery. Using these novel compounds, Infinity is seeking to discover novel drugs directed to biological targets that have not been amenable to traditional chemistries.

Approximately 40% of current drugs on the market are made by or derived from nature. Known as natural or semi-synthetic products, these molecules have historically been a significant source of new compounds for drug discovery. Natural or semi-synthetic products are often characterized as having highly potent and specific biological activities and as being structurally complex. Notwithstanding their potency and selectivity, the complexity of these compounds result in significant challenges to medicinal and process chemists to alter and scale these compounds, respectively.

As a result of these practical challenges, the pharmaceutical industry shifted its emphasis away from natural and semi-synthetic products in the 1990's and has relied more heavily on large libraries of small, synthetic

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compounds produced by combinatorial chemistry. Combinatorial chemistry refers to a technology for creating molecules in large quantities and testing them for desirable properties. These molecules feature low molecular weights, asymmetry and chemical compositions that are easy to replicate. However, despite a proliferation in the number of compounds readily available, the diversity of structures represented in such libraries has been limited. Hence there remains a need for compounds that better balance structural diversity with attractive medicinal and process chemistry properties.

Infinity has created a set of technologies that enable it to create compounds with both the diversity of natural products and the synthetic ease and efficiencies of combinatorial chemistry. Infinity's diversity oriented synthesis chemistry technology enables Infinity to produce large libraries of structurally diverse and complex molecules for pharmaceutical screening. Infinity believes these libraries embody all of the advantages of natural products, such as diversity and structural complexity, without the historic difficulties of synthesis and replication. Furthermore, because these molecules are developed with new chemistries, the molecules that Infinity is making are novel and, therefore, have the potential to provide Infinity additional proprietary protection. In addition to the potential for intellectual property around the resulting drug candidates, Infinity holds as trade secrets the process of synthesizing these molecules and the compositions of the molecules used during drug discovery. Infinity believes this is an advantageous intellectual property strategy because it allows for protection of drug candidates without the patenting of entire chemical libraries which may create unnecessary prior art for future product discoveries while being of relatively little intrinsic value. Furthermore, Infinity believes that because it is difficult to replicate the expertise and the combination of skills necessary to produce these kinds of chemical libraries absent a written description, the most effective way to protect these technologies is through trade secret.

Through its diversity oriented synthesis technologies, Infinity has identified several compounds that selectively inhibit Bcl-2, Bcl-xL and XIAP proteins that regulate apoptosis. Infinity has also applied its expertise in synthetic chemistry and natural products to discover and develop IPI-504 and potential Hedgehog pathway inhibitors for the treatment of specified cancers.

Infinity has also entered into the following key technology access alliances relating to its diversity oriented synthesis technology:

In December 2003, Infinity entered into a technology access agreement with Amgen, which was superseded in its entirety by a license agreement Infinity entered into with Amgen in July 2006. Pursuant to the agreement, Infinity granted to Amgen a non-exclusive worldwide license to use certain Infinity small molecules in its internal drug discovery activities.

In November 2004, Infinity entered into an agreement with Novartis to jointly design a collection of novel small molecules to be synthesized by Infinity using its diversity oriented synthesis chemical technology platform.

In December 2004, Infinity entered into a technology access agreement with Johnson & Johnson. Pursuant to the agreement, Infinity granted to Johnson & Johnson a non-exclusive worldwide license to use certain Infinity small molecules in its own drug discovery efforts.

Proprietary Rights and Licensing

Patent Applications

Infinity's 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.

Infinity's 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;

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defend its patents;

preserve the confidentiality of its trade secrets; and

operate without infringing the patents and proprietary rights of third parties.

As of May 18, 2006, Infinity had a total of fifteen patent applications worldwide. Thirteen of these pertain to its key product development programs. These thirteen applications comprise nine pending U.S. patent applications, including provisional and non-provisional applications relating to its key programs, and four pending international patent applications relating to its key programs. Any patents that may issue from these applications would expire between 2024 and 2026.

Infinity has a license agreement with Nexus Biosystems, Inc., or Nexus Biosystems, pursuant to which Nexus Biosystems has granted to Infinity a non-exclusive, fully-paid up, perpetual worldwide license, without the right to sublicense, to certain patents and patent applications relating to radio frequency tagging to enable Infinity to use such technology to efficiently synthesize and characterize its diversity oriented synthesis small molecule libraries. Under the terms of the license agreement, Nexus Biosystems retains the rights and obligations to defend the patents and patent applications. Infinity has paid Nexus Biosystems \$100,000 in upfront royalty payments and has no further royalty obligations. The agreement will expire on the last to expire of the licensed patents and patent applications unless earlier terminated. Nexus Biosystems has the right to terminate the agreement upon a material breach of the agreement by Infinity that remains uncured for a period of 30 days after written notice, including a breach arising from Infinity's use of the licensed rights beyond the scope of the license, and Infinity has the right to terminate the agreement upon a material breach by Nexus Biosystems that remains uncured for a period of 30 days after written notice. In the event of a termination of the license by Nexus Biosystems, Infinity's license rights will terminate.

Trademarks, Trade Secrets and Other Proprietary Information

Infinity also currently owns several trademarks, including Infinity and Infinity Pharmaceuticals. These marks are covered by registrations or pending applications for registration in the U.S. Patent Office and in the patent and trademark offices of Japan and the European Union.

In addition, Infinity 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, Infinity requires its employees, scientific advisors, consultants and collaborators, upon commencement of a relationship with it, to execute confidentiality agreements and, in the case of parties other than its research and development collaborators, to agree to assign their inventions to Infinity. These agreements are designed to protect Infinity's proprietary information and to grant Infinity ownership of technologies that are developed in connection with their relationship with Infinity. These agreements may not, however, provide protection for Infinity's trade secrets in the event of unauthorized disclosure of such information.

Research and Development

As of May 18, 2006, Infinity's research and development group consisted of 83 employees, of whom over 50 percent hold Ph.D. or M.D. degrees and over 60 percent hold advanced degrees. Infinity's research and development group is focusing on preclinical research, clinical trials, manufacturing technologies and services related to Infinity's strategic alliances.

During the three months ended March 31, 2006 and the fiscal years ended December 31, 2003, 2004 and 2005, Infinity estimates that its total company-sponsored research and development expenses were \$9.7 million, \$24.4 million, \$28.4 million and \$31.5 million, respectively.

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Strategic Alliances

Infinity believes that its long-term value will be driven by the medicines it creates. Infinity's approach to strategic alliances reflects this philosophy. Infinity's strategy includes seeking to reach key points of value recognition in its programs before entering into strategic alliances. Infinity believes that in this way significant commercial value in the products can be retained while obtaining strategic assistance to accelerate and maximize the overall potential of its programs. To date, Infinity has entered into one such product development alliance relating to its Bcl-2 program with Novartis. Infinity's strategic alliance strategy also includes entering into alliances that provide drug developers with access to Infinity's small molecule technologies. This enables Infinity to develop its small molecule technologies further while using them for its own drug discovery purposes. In addition, these alliances provide significant capital that Infinity has used to discover and develop its own proprietary product candidates. To date, Infinity has entered into three such technology access alliances with Amgen, Johnson & Johnson and Novartis.

Since inception substantially all of Infinity's revenue has been derived from its strategic alliances. For the fiscal year ended December 31, 2005, Johnson & Johnson accounted for 100% of Infinity's revenue. For the quarter ended March 31, 2006, Novartis accounted for 100% of Infinity's revenue.

Product Development Alliance

In February 2006, Infinity entered into a collaboration agreement with Novartis Institutes for BioMedical Research, Inc., referred to as Novartis, to discover, develop and commercialize drugs targeting Bcl protein family members for the treatment of a broad range of cancer indications. Under the terms of the agreement, Infinity has granted to Novartis an exclusive, worldwide license to research, develop and commercialize pharmaceutical products that are based upon Infinity's proprietary Bcl inhibitors. Novartis paid Infinity \$15.0 million in upfront license fees and has committed research funding of approximately \$10.0 million during the initial two-year research term. The research term may be extended for up to two additional one-year terms at the discretion of Novartis, and Novartis will agree to fund additional research during any extension period in an amount to be agreed upon. Assuming that the strategic alliance continues for its full term and specified research, development and commercialization milestones are achieved for multiple products for multiple indications, Novartis has agreed to make milestone payments totalling over \$370.0 million, such that total payments to Infinity could exceed \$400.0 million. In addition, Novartis has agreed to pay Infinity royalties upon successful commercialization of any products developed under the alliance. In connection with the collaboration agreement, Novartis Pharma AG, an affiliate of Novartis, purchased 1.0 million shares of Infinity's Series D preferred stock at a price of \$5.00 per share for aggregate proceeds of \$5.0 million.

Pursuant to the collaboration, Infinity and Novartis are conducting joint research to identify molecules for clinical development. Novartis will have responsibility for clinical development and commercialization of any products based upon compounds discovered under the joint research program. However, Infinity may request to participate in clinical development and if such request is agreed upon by Novartis then Novartis will fund agreed-upon development costs incurred by Infinity. Infinity also has a non-exclusive right to detail Bcl-2 family inhibitor products in the United States, with Infinity's detailing costs to be reimbursed by Novartis.

Under the agreement, Novartis will have the right and obligation to defend the patents and patent applications covering inventions for which the employees, affiliates, independent contractors, consultants or agents of both Novartis and Infinity are inventors pursuant to a strategy mutually agreed upon by Novartis and Infinity. The expenses associated with such patent prosecutions shall be shared equally by both Novartis and Infinity. Novartis and Infinity will each retain the right and obligation to defend the patents and patent applications that it owns or otherwise licenses and shall be responsible for the expenses associated with such patent prosecutions. Notwithstanding the foregoing, Novartis will be responsible for the expense of patent prosecutions incurred by Infinity for active compounds covered by patents or patent applications owned or otherwise licensed by Infinity.

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Novartis has the right to terminate the agreement at any time upon 60 days prior written notice. In addition, Novartis has the right to terminate the agreement in connection with a material breach by Infinity that remains uncured for a period of 120 days after notice. Infinity can terminate specified programs under the agreement as to breaches by Novartis relating solely to such programs that remain uncured for a period of 120 days after notice or can terminate the agreement in its entirety in connection with a material breach by Novartis of the agreement that remains uncured for a period of 120 days after notice.

Technology Access Alliances

Amgen. In December 2003, Infinity entered into a technology access agreement with Amgen Inc. pursuant to which Infinity granted to Amgen a non-exclusive worldwide license to use a proprietary collection of small molecule compounds in its internal drug discovery activities. Under the terms of the agreement, Amgen purchased 5,555,555 shares of Infinity's Series C preferred stock at a price of \$4.50 per share for an aggregate purchase price of \$25.0 million. In July 2006, Amgen and Infinity entered into a license agreement that superseded in its entirety the December 2003 technology access agreement. Pursuant to, and in accordance with the terms of, the July 2006 license agreement, Infinity granted to Amgen a non-exclusive worldwide license to use a proprietary collection of small molecules in its internal drug discovery activities. Amgen has paid Infinity a \$2.5 million upfront license fee and has agreed to make milestone payments of up to an aggregate of \$31.35 million for each product that Amgen develops and successfully commercializes based upon a licensed compound, assuming that specified clinical and regulatory objectives are achieved by Amgen. Amgen has also agreed to make additional milestone payments of up to an aggregate of \$12.0 million for each product that Amgen develops and successfully commercializes based upon a specified subset of the licensed compounds, assuming that specified clinical and regulatory objectives are achieved by Amgen for those licensed compounds. Finally, Amgen has agreed to make success payments totaling up to an aggregate of \$6.0 million if specified research and/or intellectual property objectives are achieved by Amgen and to pay royalties on sales of any products.

Pursuant to the agreement, Amgen will have the right and obligation to defend the patents and patent applications covering inventions which claim or disclose specified compounds or for which the employees, consultants or agents of both Amgen and Infinity are inventors. Amgen and Infinity will each retain the rights and obligations to defend the patents and patent applications that it owns or otherwise licenses. All patent prosecution expenses shall be borne by the party that incurs the expense.

The agreement will expire upon the later of Amgen's permanent cessation of all research and development activities under the agreement or the expiration of the final royalty term, unless earlier terminated. Amgen has the right to terminate the agreement at any time upon 60 days prior written notice. Either party has the right to terminate the agreement in connection with a material breach by the other party that remains uncured for a period of 60 days.

Novartis. In November 2004, Infinity entered into an agreement with Novartis International Pharmaceutical Ltd. to jointly design a collection of novel small molecules to be synthesized by Infinity using its diversity oriented synthesis chemical technology platform. Novartis may use the resulting compound collection in its independent drug discovery efforts. Infinity has certain rights to use the resulting compound collection in its own drug discovery efforts, and Novartis has the option to license from Infinity on an exclusive worldwide basis specified lead compounds for further development and commercialization. In the event that Novartis exercises this option to license specified lead compounds, it has agreed to pay Infinity milestone payments and royalties based upon net sales of certain drug products incorporating such compounds. In connection with the agreement, Novartis Pharma AG purchased 3,333,333 shares of Infinity's Series C preferred stock at a purchase price of \$4.50 per share for aggregate proceeds of \$15.0 million. In addition, Novartis will pay Infinity up to \$10.5 million for the successful delivery of compounds and has agreed to make milestone payments of up to an aggregate of \$13.0 million for each product that Novartis develops and successfully commercializes based upon certain licensed compounds, assuming that specified clinical and regulatory objectives are achieved by Novartis.

Under the terms of the agreement, Novartis and Infinity will jointly determine which of them will be responsible for filing, prosecuting and maintaining the patents and patent applications generated in connection

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with the collaboration and will grant the non-patenting party a worldwide, non-exclusive, fully-paid, royalty-free license, with the right to sublicense, to such patents and patent applications. All patent preparation, filing, prosecution and maintenance expenses shall be borne by the party that incurs the expense.

The agreement will expire in November 2012, unless earlier terminated or extended by mutual agreement of Infinity and Novartis.

Either party may terminate the agreement at any time in the event of a material breach by the other party that remains uncured for a period of 90 days. Either party may also terminate the agreement in the event of the other party's insolvency or bankruptcy. Novartis may terminate the agreement upon a sale of all or substantially all of Infinity's assets or a transaction that results in the change of control of Infinity. The merger does not constitute a change of control for these purposes.

Johnson & Johnson. In December 2004, Infinity entered into a technology access agreement with Johnson & Johnson Pharmaceutical Research & Development, a division of Janssen Pharmaceutica N.V., referred to as Johnson & Johnson. Pursuant to the agreement, Infinity granted to Johnson & Johnson a non-exclusive worldwide license to use certain Infinity small molecule compounds in its own drug discovery efforts. Under the terms of the agreement, Johnson & Johnson paid Infinity an upfront license fee of \$2.5 million. Additionally, Johnson & Johnson Development Corporation, an affiliate of Johnson & Johnson, purchased 2,222,224 shares of Infinity's Series C preferred stock at a purchase price of \$4.50 per share for aggregate proceeds of \$10.0 million. In December 2005, Infinity and Johnson & Johnson amended the agreement to, among other things, allow for a reduction in the number of compounds to be delivered under the agreement. In connection with the reduction in compounds, Infinity has agreed to refund to Johnson & Johnson a portion of the upfront license fee in proportion to the number of compounds actually delivered. Infinity expects the partial refund of the upfront license fee to be approximately \$950,000.

Pursuant to the agreement, Johnson & Johnson will have the right and obligation to defend the patents and patent applications covering inventions for which the employees, consultants or agents of both Johnson & Johnson and Infinity are inventors. Johnson & Johnson and Infinity will each retain the rights and obligations to defend the patents and patent applications that it owns or otherwise licenses. All patent prosecution expenses will be borne by the party that incurs the expense.

The agreement will expire upon Johnson & Johnson's permanent cessation of all research and development activities under the agreement, unless earlier terminated.

Johnson & Johnson has the right to terminate the agreement at any time upon 60 days' prior notice. In addition, either party may terminate the agreement in the event of a material breach by the other party that remains uncured for a period of 60 days.

Competition

Infinity and its strategic alliance partners face intense competition from a wide range of pharmaceutical and life science companies, as well as academic and research institutions and government agencies. These competitors include organizations that are pursuing the same or similar technologies to those which constitute Infinity's technology platform and organizations that are developing and commercializing pharmaceutical products that may be competitive with Infinity's product candidates.

Infinity believes that competition for the cancer drugs that it and its strategic alliance partners may develop will initially come from companies currently marketing and selling therapeutics to treat cancer in the general population. These competitors include the industry's leading cancer companies including Bristol-Myers Squibb Company, Hoffman-La Roche Inc., Novartis and Genentech, Inc.

Infinity and its strategic alliance partners will also face competition from other companies that are conducting research and clinical development in the areas in which Infinity is currently seeking to develop products, including:

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IPI-504. Infinity believes that the following companies, among others are seeking to develop compounds to target Hsp90:

Kosan Biosciences Incorporated, which Infinity believes is in early-to-middle stage development of multiple compounds;

Conforma Therapeutics Corporation, which recently announced its proposed acquisition by BiogenIdec, Inc., which Infinity believes is in early clinical stage development;

Serenex, Inc. which Infinity believes is in preclinical development;

Vernalis plc which Infinity believes is in preclinical development in collaboration with Novartis; and

Synta Pharmaceuticals Corp., which Infinity believes is in the lead optimization phase.

Hedgehog Pathway Inhibitors. Curis, Inc. and Genentech Inc. have a collaboration to develop inhibitors of the Hedgehog pathway for treatment of cancer. Infinity believes Curis and Genentech are in early stage clinical development for topical inhibitors and preclinical development for systemic inhibitors.

Bcl-2. Infinity believes that the following companies, among others, are seeking to develop small molecule drugs that target Bcl-2 and related family members:

GeminX Biosciences, which Infinity believes is in early stage clinical development; and

Abbott Laboratories, which Infinity believes is in preclinical development.

In each of these areas, it is also possible that other companies, including large pharmaceutical companies, may be working on competitive projects of which Infinity is not aware.

Infinity 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, Infinity's expertise in diversity oriented synthesis and small molecule drug discovery technology and the availability of working capital to fund operations and advance programs under development. Principal competitive factors in Infinity's industry include:

the quality and breadth of an organization's technology;

the skill of an organization's employees and its ability to recruit and retain skilled employees;

an organization's intellectual property protection;

research, development, sales and marketing capabilities; and

the availability of substantial capital resources to fund development and commercialization activities.

Many of the companies competing against Infinity have financial and other resources substantially greater than Infinity. In addition, many of Infinity's competitors have significantly greater experience in developing, marketing and selling pharmaceutical products, including cancer medicines, testing pharmaceutical and other therapeutic products, and obtaining FDA and other regulatory approvals of products for use in health care. Accordingly, Infinity's competitors may succeed more rapidly than Infinity in obtaining FDA approval for product candidates and achieving widespread market acceptance of products.

Manufacturing and Supply

Infinity has no manufacturing capabilities. Infinity relies on third parties to manufacture bulk compounds and finished investigational medicines for research, development, preclinical and clinical trials. Infinity currently utilizes third parties for manufacture of small-scale batches of IPI-504 for clinical trials and small-scale batches of Hedgehog pathway inhibitors for preclinical testing. Commercial quantities of any drugs Infinity seeks to develop will have to be manufactured in facilities and by processes that comply with the FDA and other regulations. Infinity plans to rely on third parties to manufacture commercial quantities of any products it successfully develops. Infinity believes that there are several manufacturing sources available to it on commercially reasonable terms to meet its clinical and any commercial production requirements.

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Infinity currently relies on third parties for the preclinical or clinical supplies of each of its drug candidates and does not currently have relationships for redundant supply or a second source for any of its drug candidates. However, Infinity 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

Infinity intends to establish its own sales and marketing capabilities if and when it obtains regulatory approval of its drug candidates. In North America and Western Europe, patients in the markets for its drug candidates are largely managed by medical oncologists. Historically, companies have experienced substantial commercial success through the deployment of specialized sales forces which can address a majority of key prescribers, particularly within the oncology marketplace. Therefore, Infinity expects to utilize a specialized sales force in North America for the sales and marketing of drug candidates that it may successfully develop. Infinity currently has no marketing, sales or distribution capabilities. 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. Infinity may also choose to hire a third party to provide sales personnel instead of developing its own staff. Pursuant to its collaboration agreement with Novartis, Infinity has granted Novartis worldwide commercialization rights for compounds that result from the parties' Bcl collaboration with Infinity retaining the option to co-detail Bcl-2 family inhibitor products in the United States, with Infinity's detailing costs to be reimbursed by Novartis.

Outside of North America, and in situations or markets where a more favorable return may be realized through licensing commercial rights to a third party, Infinity 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.

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;

finest;

restrictions on importation of its products;

injunctions;

debarment; and

civil and criminal penalties.

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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;

the 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

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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 premarket 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

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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 decide that 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 Infinity's product candidates may depend on their superiority over existing therapies, any restriction on Infinity's 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 Infinity's products and/or Infinity's 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 (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

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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 Infinity's 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 and 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

Infinity's research and development processes involve the controlled use of hazardous materials, chemicals and radioactive materials and the production of waste products. Infinity is subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of hazardous materials and waste products. Infinity does not expect the cost of complying with these laws and regulations to be material.

Scientific Advisors

Infinity seeks advice from a number of leading scientists and physicians on scientific and medical matters. Infinity's scientific advisors meet regularly to assess:

its research and development programs;

the design and implementation of its clinical programs;

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its 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.

Infinity's key scientific advisors are:

Name	Position/Institutional Affiliation
Kenneth Anderson	Dana-Farber Cancer Institute Harvard Medical School
Todd Golub	Dana-Farber Cancer Institute Harvard Medical School Broad Institute
Richard Klausner	Industry Consultant
Eric Lander	Broad Institute, MIT Whitehead Institute Harvard Medical School
Arnold Levine	Institute for Advanced Study
David Livingston	Dana-Farber/Harvard Cancer Center Harvard Medical School
Philip Needleman	Industry Consultant
Vicki Sato	Industry Consultant
Stuart Schreiber	Howard Hughes Medical Institute Dept. of Chemistry and Chemical Biology Harvard University Broad Institute
Matthew Shair	Dept. of Chemistry and Chemical Biology Harvard University

Employees

As of May 18, 2006, Infinity had 102 full-time employees, 83 of whom were engaged in research and development and 19 of whom were engaged in management, administration and finance. Of Infinity's employees, over 60 percent hold advanced degrees. Infinity's success depends in part on its ability to recruit and retain talented and trained scientific and business personnel and senior management. Infinity believes that it has been successful to date in obtaining and retaining such personnel, but may not be successful in the future. None of its employees are

represented by a labor union or covered by a collective bargaining agreement, nor has it experienced work stoppages. Infinity believes that relations with its employees are good.

Properties

Infinity leases a facility that contains approximately 67,000 square feet of laboratory and office space in Cambridge, Massachusetts. The lease has a term ending in December 2012. Infinity believes that its current facilities are adequate for its needs for the foreseeable future and that, should it be needed, suitable additional space will be available to accommodate expansion of its operations on commercially reasonable terms.

Legal Proceedings

Infinity is not currently a party to any material legal proceedings.

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**DISCOVERY PARTNERS MANAGEMENT'S DISCUSSION AND ANALYSIS OF
FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

The following discussion and analysis of financial condition and results of operations should be read together with Selected Historical Consolidated Financial Data of Discovery Partners on page 16 of this joint proxy statement/prospectus and Discovery Partners financial statements and accompanying notes appearing elsewhere in this joint proxy statement/prospectus. This discussion of Discovery Partners financial condition and results of operations contains certain statements that are not strictly historical and are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 and involve a high degree of risk and uncertainty. Actual results may differ materially from those projected in the forward-looking statements due to other risks and uncertainties that exist in Discovery Partners operations, development efforts and business environment, including those set forth under Risk Factors Risks Related to Discovery Partners, the other risks and uncertainties described under Risk Factors and the other risks and uncertainties described elsewhere in this joint proxy statement/prospectus. All forward-looking statements included in this joint proxy statement/prospectus are based on information available to Discovery Partners as of the date hereof, and Discovery Partners assumes no obligation to update any such forward-looking statement.

Recent Events

As discussed above, Discovery Partners has entered into a merger agreement with merger sub and Infinity pursuant to which Infinity will merge with and into merger sub, with Infinity, as the surviving corporation, becoming a wholly owned subsidiary of Discovery Partners.

On July 5, 2006, Discovery Partners completed the sale of all of the stock of Discovery Partners operating subsidiaries and all of its material operating assets, including Discovery Partners material intellectual property, information technology infrastructure, financial/accounting infrastructure, office furniture and other associated equipment for \$5.4 million in cash, subject to a purchase price adjustment, to Galapagos and Biofocus. Discovery Partners remaining assets following the sale consist primarily of its cash, cash equivalents and short-term investments, its listing on the NASDAQ Global Market and the merger agreement with Infinity. In addition, Discovery Partners and its subsidiaries employees became employees of Galapagos and Biofocus, except for 16 Discovery Partners general and administrative personnel. Where pro forma financial information is provided, Discovery Partners will reflect the historical operating results relating to the Discovery Partners subsidiaries and operating assets sold to Galapagos and Biofocus as discontinued operations. As a result of the sale transaction, Discovery Partners business immediately following the merger will be the business conducted by Infinity immediately prior to the merger, and the following discussion and analysis of Discovery Partners financial condition and operating results, as well as the trends and risks that apply to its financial condition and operating results, will change from those described herein based on Discovery Partners business to date and will no longer be applicable to Discovery Partners. In addition, as a result of the sale transaction, Discovery Partners historical operating results reported in this joint proxy statement/prospectus will not be indicative of future results. More specific terms of the stock and asset purchase agreement are described under Discovery Partners Business on page 127 of this joint proxy statement/prospectus.

Historical Overview

Prior to the sale of Discovery Partners material operating assets to Galapagos and Biofocus, Discovery Partners collaborated with pharmaceutical and biopharmaceutical companies to advance their drug discovery process through Discovery Partners integrated collection of drug discovery technologies, products and services focused from the point immediately following identification of a drug target through when a drug candidate was ready for preclinical studies.

However, it became evident during 2005 that the basic business sector in drug discovery contract research and services was undergoing a major and quite unfavorable market shift. Worldwide improvements in

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communications and shipping, coupled with entrepreneurial efforts in rapidly developing locations such as India, China and Eastern Europe, enabled the highly skilled scientists in those areas to build companies providing a similar range of products and services to Discovery Partners and its peer group, but at significantly lower prices. New guarantees of protection of intellectual property in these locations has offered the necessary assurances to the biotech and pharmaceutical industry that the decision to outsource basic drug discovery offshore has become driven by low price. This shift resulted in the loss of Discovery Partners' ability to consummate synthetic chemistry library contracts, the principal basis of its business in preceding years. As a result, Discovery Partners determined that its past strategy of providing contract research no longer offered sufficient upside potential to justify the significant expenditures of capital that would be required over many years as a co-investment with customers, the significant costs of maintaining a public company infrastructure, and the risks of execution within a rapidly evolving business sector.

In the fourth quarter of 2005, discussions with Pfizer to renew Discovery Partners' contract with Pfizer were ended. With the absence of a new contract with Pfizer, Discovery Partners reduced its combinatorial chemistry and library synthesis operational capacity through a restructuring of its South San Francisco facility and consolidation of its chemistry platform into its San Diego facility. Discovery Partners recorded a total of \$2.5 million of charges through March 31, 2006 for restructuring activities resulting from this decision, which consisted of accrued one-time termination benefits and lease obligations. In the fourth quarter of 2005, Discovery Partners recorded \$3.9 million in non-cash write-downs of its prepaid royalty to Abbott Laboratories for the μ ARCS screening technology, recorded as impairment of long-lived assets, and inventories that were non-essential to its previous focus, recorded in cost of revenues.

Discovery Partners had a limited history of offering its integrated drug discovery platform in the form of a collaborative model to the pharmaceutical and biopharmaceutical industries. It was uncertain whether its previous service-based customers would migrate to this new business offering or whether new collaborators would enter into collaborations with Discovery Partners. It was also uncertain whether Discovery Partners would be successful in entering into any collaborative arrangements in sufficient amounts to absorb previous operating capacity levels. In addition, the majority of its operating costs were fixed in nature. Accordingly, if revenues continued to decline as anticipated, Discovery Partners would not have been able to correspondingly reduce its operating expenses, which would have negatively impacted its future operating results for a particular fiscal period. Furthermore, its fee-for-service screening services and chemistry services operated under increasing price pressures that continued to force Discovery Partners to reduce its reliance on such fee-for-service work as the primary basis of its business.

Discovery Partners entered 2006 cognizant of these changes in its business under reorganized management and with an imperative from its Board of Directors to make the best use of its financial and scientific assets to accelerate its entry into more substantial value-creating activities. The merger with Infinity is attractive to the Discovery Partners board of directors and management in part owing to the belief that Discovery Partners' ownership in Infinity's product candidate pipeline would provide Discovery Partners' stockholders a product-based investment opportunity of market-recognized value, including the potential to participate in several value-inflection milestones related to Infinity's product candidates.

Discovery Partners' major services were as follows:

Chemistry Services

Compounds. Discovery Partners developed and synthesized a broad range of highly purified compound libraries that could be screened using biological assays. After compounds were screened, promising compounds, or hits, were then improved, or optimized, to generate drug candidates, or leads. As a result of the acquisition of substantially all of the assets of Biofrontera Discovery GmbH, in April 2005, Discovery Partners was able to offer collections of unique purified mixtures and purified natural compounds that could be screened using assays and that could then further be characterized or/and modified to generate drug candidates.

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Medicinal Chemistry. Discovery Partners provided a wide range of medicinal chemistry and other lead optimization services. This included the synthesis of compounds that modify the original hit for improved potency, selectivity and other pharmaceutical characteristics. In some cases Discovery Partners provided medicinal chemistry services in conjunction with its computational drug discovery efforts to design and synthesize small libraries of compounds to act on specific targets that had known structures.

Drug Discovery Informatics; ADME and Toxicology. Discovery Partners developed computational tools that Discovery Partners believed allowed Discovery Partners to substantially increase its knowledge of the characteristics of targets and leads, and their interaction with certain molecules. Discovery Partners believed these tools could potentially be applied throughout the drug discovery process to significantly reduce the time and cost of developing a drug. Discovery Partners had computer algorithms that allowed Discovery Partners to design libraries of compounds with high diversity, thereby increasing the likelihood of finding hits during screening.

Discovery Partners developed novel algorithms to aid in the understanding and utilization of the data resulting from high throughput screening experiments. Discovery Partners expected to use its computational tools to help predict absorption, distribution, metabolism, and excretion, or ADME, and toxicological reactions to classes of compounds. This could have allowed its customers to avoid spending money and time on hits and leads that would ultimately fail due to their unfavorable ADME and toxicological characteristics.

Compound Repository. Discovery Partners also provided services to establish, maintain and manage compound repositories for third parties such as the National Institute of Mental Health of the National Institutes of Health, or NIH.

Screening Services

Screening. Discovery Partners offered high throughput and high content screening services at its facility in Allschwil, Switzerland. Discovery Partners also offered its customers access to a collection of chemical compounds comprised of compounds from many commercial suppliers as well as those that had been internally developed.

Assays. Discovery Partners provided assay development services to help its customers better select drug candidates before moving to the more costly stages of preclinical and clinical testing. Discovery Partners' team of scientists worked with major target classes in a number of significant therapeutic areas, such as cardiovascular, neurology, oncology and ophthalmology.

Other licenses and services

Royalties. Discovery Partners licensed its proprietary gene profiling system, under the Xenometrix patent licensing agreements, that characterized a cell's response upon exposure to compounds and other agents by the pattern of gene expression.

Customer Concentration

The following table illustrates customers, from historical operations other than Discontinued Operations discussed below, that provided more than 10% of Discovery Partners' revenues:

	For the Years Ended			For the Three Months Ended	
	2005	2004	2003	2006	2005
Pfizer	54%	62%	69%	3%	39%
National Institutes of Health (NIH)	14%	3%		21%	19%
Allergan	5%	6%	3%	18%	2%
Grünenthal GmbH	1%	1%		13%	3%
Others	26%	28%	28%	45%	37%

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In February 2004, Discovery Partners entered into a broadened collaboration agreement with Pfizer that replaced its prior collaboration with Pfizer that Discovery Partners entered into in December 2001. Under this agreement, Discovery Partners collaborated with Pfizer to design and develop compounds that are owned by and exclusive to Pfizer. The agreement expired by its terms on January 6, 2006.

In August 2004, Discovery Partners entered into a multi-year contract with the NIH to establish and maintain a Small Molecule Repository to acquire, manage and provide up to one million chemical compounds to multiple NIH screening centers as part of the NIH Roadmap Initiative. The benefits of such agreement were assigned to Galapagos and Biofocus, pending novation of such agreement, in connection with the sale of all of Discovery Partners' material operating assets to Galapagos and Biofocus. This contract was funded in its entirety by NIH, Department of Health and Human Services. Payments to Discovery Partners for performance under this contract were subject to audit by the Defense Contract Audit Agency and were subject to government funding.

Discontinued Operations

In October 2005, Discovery Partners sold the assets related to its instrumentation product lines to former members of its management team for a total of \$1.9 million. The instrumentation product lines consisted of the legacy IRORI products and services including the IRORI[®] chemical synthesis, Crystal Farm[®] automated protein crystallization, and Universal Store compound storage systems. The chemical synthesis system was based on a patented core technology referred to as directed sorting, enabling customers to generate large collections of compounds. The automated protein crystallization and imaging system provided automated high throughput incubation and imaging of protein crystallization experiments. The compound storage product was a proprietary vial, tube and microplate storage and retrieval system. The instrumentation product lines revenues represented 5%, 12% and 6% of total revenues for the years ended December 31, 2003, 2004 and 2005. These products required a significant amount of financial investment to maintain their competitive advantages and did not add significant value in the service-based offerings in a collaboration model. Discovery Partners' consolidated financial statements and related notes contained herein have been recast to reflect the financial position, results of operations and cash flows of the instrumentation product lines as a discontinued operation.

Discovery Partners did not account for its instrumentation product lines as a separate legal entity. Therefore, the following selected financial data for its discontinued operations is presented for informational purposes only and does not necessarily reflect what the net sales or earnings would have been had the businesses operated as a stand-alone entity. The financial information for Discovery Partners' discontinued operations excludes allocations of facilities and other corporate expenses related to those operations that were not transferred in the sale of those assets. These amounts are considered by management to reflect most fairly or reasonably the incremental financial results related to those operations. See Note 3, Discontinued Operations, in the notes to the consolidated financial statements of Discovery Partners on page F-19 of this joint proxy statement/prospectus.

Selected Financial Data for Discontinued Operations

	Years Ended December 31,			Three Months Ended March 31,
	2005	2004	2003	(Unaudited) 2005
	(In thousands)			
Revenues	\$ 2,026	\$ 7,296	\$ 4,617	\$ 334
Cost of revenues	842	3,953	3,784	158
Gross margin	1,184	3,343	833	176
Research and development	1,462	2,252	1,979	564
Selling, general and administrative	560	573	1,073	199
Total operating expenses	2,022	2,825	3,052	763
Gain (loss) from discontinued operations	\$ (838)	\$ 518	\$ (2,219)	\$ (587)

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Amounts included in fiscal 2005 represent the results of operations to the instrumentation product lines for the period January 1, 2005 through October 7, 2005, the effective date of the sale of the assets.

Critical Accounting Policies

This discussion and analysis of Discovery Partners' financial condition and results of operations is based upon its financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires Discovery Partners to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses. On an ongoing basis, Discovery Partners evaluates its estimates. Discovery Partners bases its estimates on historical experience and on various other assumptions that Discovery Partners believes to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates, and the estimates themselves might be different if Discovery Partners used different assumptions.

Discovery Partners believes the following critical accounting policies involve significant judgments and estimates that are used in the preparation of its consolidated financial statements.

Revenue recognition.

Revenue is recognized as follows:

Chemistry services. Revenue from the sale of chemical compounds delivered under Discovery Partners' chemistry collaborations is recorded as the compounds are shipped. Revenue under chemistry service agreements that are compensated on a full-time equivalent, or FTE, basis is recognized on a monthly basis and is based upon the number of FTE employees that actually worked on each project and the agreed-upon rate per FTE per month. Beginning in April 2004, in accordance with Discovery Partners' agreement with Pfizer, Discovery Partners was compensated based on predetermined limits to reserve sufficient resources to complete specific compound related activities, at the customer's request, whether or not utilized. Revenue for reserving these resources was recognized based on the predetermined limits stipulated in the contract.

Compound repository services. In August 2004, Discovery Partners entered into a multi-year contract with the NIH to establish and maintain a Small Molecule Repository to manage and provide up to one million chemical compounds to multiple NIH Screening Centers as part of the NIH Roadmap Initiative. Revenue under this contract is recorded as costs are incurred, which include indirect costs that are based on provisional rates estimated by management at the time Discovery Partners submitted its proposal. Discovery Partners has calculated its actual indirect costs to be greater than its provisional rates and management fully intends to negotiate recovery of these higher costs with the government. Since this is its first government contract Discovery Partners has no historical experience negotiating final indirect cost rates with the government and therefore all cost overruns have been expensed and any potential recovery will be recognized as either extraordinary gain if collected within twelve months of the close of the merger or otherwise income from discontinued operations upon receipt of monies. This contract is funded, in its entirety, by the NIH and the Department of Health and Human Services. Payment to Discovery Partners for performance under this contract is subject to audit by the Defense Contract Audit Agency and is subject to government funding. Discovery Partners provides a reserve against its receivables for estimated losses that may result from rate negotiations, audit adjustments and/or lack of government funding availability. As of March 31, 2006, no reserve was considered necessary.

Screening services. High throughput screening service revenues are recognized on the proportional performance method. Advances received under these high throughput screening service agreements are initially recorded as deferred revenue, which is then recognized proportionately as costs are incurred over the term of the contract. Certain of these contracts may allow the customer the right to reject the work performed; however, Discovery Partners has no history of material rejections and, as a result, historically Discovery Partners has recognized revenue without providing for such contingency.

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Other licenses. Other licenses revenue includes royalty revenue due to Discovery Partners under the Xenometrix patent licensing agreements. Revenue earned under the licensing agreements is determinable at the time the customer reports its royalty obligations, which is known to Discovery Partners upon receipt of payment. As such, royalty revenue is recognized upon receipt of monies, provided Discovery Partners has no future obligation with respect to such payments.

Integrated drug discovery collaborations may provide chemistry services revenue, screening services revenue, milestone payments and other revenues. Revenue for each of these elements of such collaborations is recognized as described above. Revenue from milestone payments would be recognized upon receipt of monies.

Valuation of long-lived assets

In accounting for long-lived assets, Discovery Partners makes estimates about the expected useful lives and the potential for impairment. Changes in the marketplace, technology or Discovery Partners' operations could result in changes to these estimates. If a change to the estimate of the expected useful life is identified, the impact of accelerated depreciation is recognized in the period of the change. In connection with the restructuring of Discovery Partners' South San Francisco facility in 2005, Discovery Partners identified long-lived assets that would cease to be used beyond the first quarter of 2006 (the period when the restructuring would be complete). The change to the estimate of the useful lives of these assets resulted in \$222,200 of accelerated depreciation charges recognized in the first quarter of 2006 and \$202,934 in the fourth quarter of 2005. Discovery Partners' long-lived assets are evaluated for impairment when events and circumstances indicate that the assets may be impaired. If impairment is indicated, Discovery Partners reduces the carrying value of the asset to fair value. During the three months ended March 31, 2006 and 2005, Discovery Partners recorded \$3.2 million and \$1.0 million, respectively, in impairment charges on long-lived assets.

Valuation of investments in marketable securities

In accounting for investments in marketable securities, Discovery Partners classifies its investments as available-for-sale and records such assets at estimated fair value in its consolidated balance sheets, with unrealized gains and losses, if any, reported in stockholders' equity (other comprehensive income). Discovery Partners invests its excess cash balances in marketable debt securities, primarily government securities, corporate bonds and notes and asset-backed securities, with strong credit ratings. Discovery Partners limits the amount of investment exposure to institutions, maturity and investment type. The realized gains and losses of securities sold is determined based on the specific identification method.

Discovery Partners will record an impairment charge if the securities continue to be impaired beyond twelve months or other factors indicate there is permanent impairment. Discovery Partners regularly monitors and evaluates the realizable value of its marketable securities. When assessing marketable securities for other-than-temporary declines in value, Discovery Partners considers such factors as, among other things, how significant the decline in value is as a percentage of the original cost, how long the market value of the investment has been less than its original cost and the market in general.

Restructuring charges

In accounting for restructuring charges Discovery Partners considers the primary elements to its restructuring plans: one-time termination benefits and the consolidation of excess facilities. Discovery Partners recognizes the fair value of one-time termination benefits when Discovery Partners has taken actions or has the appropriate approval for taking action, and when a liability is incurred (when the plan has been communicated to employees). If employees are required to render service beyond a 60 day minimum retention period, the fair value of the obligation is determined on the date of the communication to the employee and recognized over the service period. In determining its costs to consolidate excess facilities, Discovery Partners estimates the fair value of the obligation at the cease-use date based on the remaining lease rentals, reduced by estimated sublease rentals that could be reasonably obtained for the property, even if Discovery Partners is unsuccessful in entering into a sublease. Discovery Partners recognize charges for consolidation of excess facilities when Discovery

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Partners has vacated the premises. Discovery Partners recognizes the cumulative effect of any changes to the plan subsequent to the communication date and cease-use date in the period of the change.

Results of Operations***Comparison of the Three Months Ended March 31, 2006 and 2005***

Revenue. Total revenue decreased 36% to \$4.3 million for the three months ended March 31, 2006 from \$6.7 million for the three months ended March 31, 2005. The decrease of approximately \$3.1 million was due primarily to lower chemistry services revenue of \$2.5 million upon the expiration of the Pfizer contract partially offset by increased screening services revenue.

During the three months ended March 31, 2006 and 2005, 21% and 19%, respectively, of Discovery Partners' revenue came from its multi-year contract with the NIH as part of the NIH Roadmap Initiative. The agreement expires by its terms on November 30, 2008, but may be renewed through two extensions by the NIH up to November 30, 2013. Payments to Discovery Partners for performance under this contract are subject to audit by the Defense Contract Audit Agency and are subject to government funding.

Gross margin. Gross margin as a percentage of revenue decreased to a negative gross margin of 16% for the three months ended March 31, 2006 from 23% for the three months ended March 31, 2005. The decrease in gross margin in 2006 is primarily due to lower volumes of chemistry service revenues attributable to the lack of Pfizer revenues in 2006 and a corresponding change in revenue mix. The lack of change in cost of sales is primarily a result of unabsorbed capacity as the cost of capacity remained constant. Discovery Partners implemented a restructuring plan in the fourth quarter of 2005 to reduce its combinatorial chemistry and library synthesis operational capacity in its South San Francisco facility in connection with the expiration of the contract with Pfizer. Discovery Partners anticipates lower costs of sales to be realized beginning in the second quarter of 2006 as a result of the restructuring activities.

Research and development expenses. Research and development expenses consist primarily of salaries and benefits, supplies and expensed development materials, and facilities costs including equipment depreciation. Research and development expenses increased 75% to \$980,000 for the three months ended March 31, 2006 from \$561,000 for the three months ended March 31, 2005. Research and development expenses increased primarily due to the increased operating costs as a result of the acquisition of the natural compound based discovery business from Biofrontera Discovery GmbH in April 2005, which represented \$840,000 of operating expenses. This increase in operating costs more than offset decreased spending in all other research and development activities in the first quarter of 2006. Research and development expenses as a percentage of revenues were 23% and 8% for the three months ended March 31, 2006 and 2005, respectively.

Selling, general and administrative expenses. Selling, general and administrative expenses consist primarily of salaries and benefits for sales, marketing and administrative personnel, advertising and promotional expenses, professional services, and facilities costs. Selling, general and administrative expenses decreased 17% to \$3.6 million for the three months ended March 31, 2006 compared to \$4.4 million for the three months ended March 31, 2005. Selling, general and administrative expenses decreased primarily due to lack of severance payments made to Discovery Partners' former Chief Operating Officer under the separation agreement it entered into in January 2005 and lower staffing levels partially offset by increased professional fees associated with the merger activity. Selling, general and administrative expenses as a percentage of revenues were 83% and 65% for the three months ended March 31, 2006 and 2005, respectively.

Restructuring expenses. In November 2005, Discovery Partners implemented a restructuring plan to reduce its combinatorial chemistry and library synthesis operational capacity in its South San Francisco facility in connection with the expiration of its chemistry service collaboration with Pfizer. In the first quarter of 2006, Discovery Partners incurred \$534,000 in termination benefits and approximately \$1.0 million in accrued lease obligations. Discovery Partners' restructuring efforts were substantially completed in the first quarter of 2006.

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During the three months ended March 31, 2005, Discovery Partners incurred approximately \$130,000 in additional restructuring expense resulting from an increase in the estimate to restore the Tucson facility to its original condition as stipulated in the lease. Discovery Partners does not expect to incur any additional restructuring charges related to the Tucson closure. Restructuring expenses as a percentage of revenues were 36% and 2% for the three months ended March 31, 2006 and 2005, respectively.

Impairment of long-lived assets. During the three months ended March 31, 2006, Discovery Partners recorded a non-cash impairment charge of \$3.2 million, representing long-lived assets, consisting primarily of property, plant and equipment, of certain operating units. The inherent risk in maintaining ongoing operations with Discovery Partners' employee and customer base and the reduced probability of entering into drug discovery collaborations while concurrently pursuing various strategic transactions, including the merger with Infinity, required the evaluation of impairment of some of Discovery Partners' long-lived assets. Discovery Partners considered all available evidence and developed estimates of the future cash generating capacity and the future expenditures associated with the various operating asset groups. The results indicated that more than one operating asset group are expected to generate negative cash flows and would not recover their carrying value. Therefore, the fair value of these long-lived assets was deemed to be zero. Discovery Partners recorded an impairment charge of \$1.0 million during the three months ended March 31, 2005 on patent rights to a proprietary gene profiling system that is licensed and which enables Discovery Partners to offer toxicology research products and services. The loss of a customer required the reevaluation of the recoverability of the carrying value of the asset.

Interest income. Interest income increased 84% to \$855,000 for the three months ended March 31, 2006 compared to \$465,000 for the three months ended March 31, 2005. The increase in interest income is due primarily to higher yields and a decrease in realized losses in the first quarter of 2006 compared to 2005.

Foreign currency transaction gains. Discovery Partners realized \$21,000 and \$49,000 in foreign currency transaction gains in the three months ended March 31, 2006 and 2005, respectively.

Discontinued operations. In October 2005, Discovery Partners sold the assets related to the IRORI[®] chemical synthesis, Crystal Farm[®] automated protein crystallization, and Universal Store[®] compound storage system product lines for \$1.9 million. Discovery Partners recognized an additional \$165,000 of gain on the sale of these assets during the three months ended March 31, 2006, as a result of proceeds received for an aggregate gain on sale of these assets of \$559,000.

Comparison of the Years Ended December 31, 2005, 2004 and 2003

Revenues. Total revenue in 2005 decreased 21% to \$34.8 million from \$44.3 million in 2004 and \$45.2 million in 2003. The decrease from 2004 to 2005 resulted primarily from decreases in chemistry services revenue and screening services revenue partially offset by increases in compound repository service revenue. The decrease in chemistry services revenue of approximately \$7.2 million was due primarily to lower revenues generated from Pfizer and decreases in all other chemistry services. In the fourth quarter of 2004, Discovery Partners exercised its right to deliver additional compounds in 2004 under Discovery Partners' contract with Pfizer, not to exceed the number of compounds scheduled for delivery in the first quarter of 2005 as stipulated in the contract. These additional shipments in 2004 equaled Discovery Partners' allotment for the first quarter of 2005 and resulted in additional revenue of \$4.2 million in the fourth quarter of 2004 that was not recognized in the first quarter of 2005. The decrease in screening services revenue of approximately \$2.3 million resulted primarily from decreases in screening service activity. These decreases were partially offset by an increase of \$3.8 million of compound repository service revenue generated by Discovery Partners' contract with the NIH. The increase from 2003 to 2004 resulted primarily from increases in screening services revenue due primarily to new contracts as well as additional services provided on existing contracts in 2004.

In 2005, 2004 and 2003, 54%, 62% and 68%, respectively, of Discovery Partners' revenue came from its chemistry contract with Pfizer. The agreement expired by its terms on January 6, 2006.

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In 2005 and 2004, 14% and 3%, respectively, of Discovery Partners' revenues came from the NIH funded contract. Revenues under the NIH contract are earned as costs are incurred to procure, inspect and ship compounds to NIH designated screening centers. In addition, the component of revenue earned, as compounds are purchased on behalf of the NIH, is recognized at the point the compounds pass certain quality standards, as specified by the NIH, and payment is made to the compound vendors. The timing of revenues earned is partially dependent on the timing of the NIH selection of compounds, the timing of procurement and processing of acquired compounds and the volume of screening activity at the NIH designated screening centers. In the event the NIH is delayed in the selection process of acquiring compounds, or such acquired compounds fail to meet the NIH specified standards, or if there are delays in the ramp up in the demand of the NIH designated screening centers, revenues recognized under this contract may be deferred to future periods. The NIH contract is subject to continued government funding.

Gross margins. Gross margin decreased to \$9.7 million in 2005 from \$19.1 million in 2004 and \$17.6 million in 2003. The decrease in gross margin in 2005 from 2004 is primarily due to the decrease in chemistry and screening service revenue volume. The lack of change in cost of sales is primarily a result of unabsorbed capacity as the cost of capacity remained constant. In the fourth quarter of 2004, Discovery Partners exercised its right to deliver additional compounds to Pfizer in 2004, not to exceed the number of compounds scheduled for delivery in the first quarter of 2005 as stipulated in the contract. These additional shipments in 2004 equaled its allotment for the first quarter of 2005 and resulted in additional gross margin of \$3.1 million in the fourth quarter of 2004 that was not recognized in the first quarter of 2005. The increase in gross margin for 2004 over 2003 primarily relates to improved gross margins derived from higher volumes on chemistry and screening services.

Gross margin as a percentage of revenues decreased to 28% in 2005 from 43% in 2004 and 39% in 2003. The decrease in gross margin as a percentage of revenue for 2005 is primarily due to decreased volume in higher margin chemistry revenues and screening services. The decrease in chemistry gross margin as a percentage of revenue was partially offset by increased volume of lower margin NIH business in 2005 as this contract began in August of 2004. Gross margin as a percentage of chemistry services revenue decreased due to decreased revenues under its Pfizer agreement, decreases in medicinal chemistry services, and charges related to the restructuring of its South San Francisco facility in the fourth quarter of 2005, which included the impact of accelerated depreciation and reserves on raw material inventory totaling \$380,000. The improvement in gross margin as a percentage of revenue for 2004 over 2003 was primarily related to improvements on chemistry and screening services as a result of improved margins as a percentage of revenue on the Pfizer contract and lower levels of excess capacity.

Research and development expenses. Research and development expenses consist primarily of salaries and benefits, supplies and expensed development materials, and facilities costs including equipment depreciation. Research and development expenses increased 153% in 2005 to \$3.9 million compared to \$1.5 million in 2004. Research and development expenses increased 201% in 2004 to \$1.5 million compared to \$514,000 in 2003. Research and development expenses increased primarily due to the increased operating costs in the later half of 2005 as a result of the acquisition of the natural compound based discovery business from Biofrontera Discovery GmbH in April 2005 which represented \$2.1 million of operating expenses, and from the redeployment of development scientists and engineers from direct revenue generating activities of customer funded R&D programs and collaborations to internal programs focused on in silico tools, screening assays and drug discovery process development. The increase in research and development expense in 2004 from 2003 is primarily due to an increase in internal research programs focused on in silico tools, targeted libraries, screening assays and drug discovery process development. Research and development expenses as a percentage of revenues were 11% in 2005, 3% in 2004 and 1% in 2003.

Selling, general and administrative expenses. Selling, general and administrative expenses consist primarily of salaries and benefits for sales, marketing and administrative personnel, advertising and promotional expenses, professional services, and facilities costs. Selling, general and administrative expenses increased 5% to

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\$16.1 million in 2005 compared to \$15.4 million in 2004. Selling, general and administrative expenses increased 12% to \$15.4 million in 2004 compared to \$13.7 million in 2003. The increase in 2005 is primarily due to \$1.3 million in termination benefits paid to its former Chief Executive Officer, Chief Operating Officer and other members of senior management in 2005 and \$600,000 in increased consulting fees related to the evaluation of corporate strategic initiatives. These increases were partially offset by \$1.1 million decrease in business development activities and decreases in various administrative costs. The increase from 2003 to 2004 was due primarily to an increase in business development activities and professional services fees primarily related to Sarbanes-Oxley compliance. These increases were partially offset by decreased incentive compensation costs due to underperformance against corporate goals. Selling, general and administrative expenses as a percentage of revenues were 46% in 2005, 35% in 2004 and 30% in 2003.

Impairment of long-lived assets. Discovery Partners recorded \$4.7 million in impairment charges on long-lived assets in 2005. Approximately \$3.7 million of the impairment charges related to its prepaid royalty to Abbott Laboratories related to the μ ARCS screening technology. In connection with the restructuring of its chemistry operations Discovery Partners decided to discontinue the commercialization of the μ ARCS screening technology. Discovery Partners considered all available evidence and determined that no further benefit would be realized by use of this asset in current revenue generating or operating activities nor would any future cash flows be generated by use of this asset. \$1.0 million of the impairment charges relate to patent rights to a proprietary gene profiling system that is licensed and which enables Discovery Partners to offer toxicology research products and services. The loss of a customer required the reevaluation of the recoverability of the gross carrying value of the asset. Discovery Partners considered all available evidence and developed estimates based on historical rates of attrition of the customer base, future cash generating capacity and future expenditures necessary to maintain the asset. Discovery Partners utilized an expected present value technique, in which a series of cash flow scenarios that reflect the range of possible outcomes are discounted, to estimate the fair value of the asset. If Discovery Partners is not successful in generating sufficient revenues in the future from this asset, Discovery Partners may be required to record additional impairment charges up to \$684,000. The restructuring of its chemistry operations in South San Francisco and anticipated expiration of its chemistry collaboration with Pfizer required the reevaluation of the recoverability of the gross carrying value of the long-lived assets used in this facility. Discovery Partners determined the carrying value (after consideration of the change in estimated useful lives discussed above) was recoverable through the first quarter of 2006 and no additional impairment charges were required at December 31, 2005.

Restructuring expenses. In the fourth quarter of 2005, discussions with Pfizer regarding a new collaboration to extend its services in the design and development of compounds exclusively for Pfizer were ended. In the absence of a new contract with Pfizer, Discovery Partners began the process of reducing its combinatorial chemistry and library synthesis operational capacity in a restructuring of its South San Francisco facility. In the fourth quarter of 2005 Discovery Partners recorded a \$928,000 charge for restructuring activities resulting from this decision, which consisted of accrued one-time termination benefits. Restructuring expenses related to the closure of its Tucson facility were \$112,000 in 2005 and \$1.9 million in 2003 consisting of moving, relocation and other costs. Discovery Partners does not expect to incur any additional restructuring charges related to the Tucson closure.

Interest income, net of interest expense. Discovery Partners realized \$2.0 million in net interest income in 2005, compared to net interest income of approximately \$1.4 million in 2004 and \$1.8 million in 2003. The increase in net interest income in 2005 compared to 2004 is due primarily to higher yields on short-term investments in 2005. The decrease in 2004 compared to 2003 is primarily due to lower yields and losses realized in 2004.

Foreign currency transaction gains and losses. Discovery Partners realized approximately \$39,000 in foreign currency transaction gains in 2005, compared to losses of \$265,000 in 2004 and \$13,000 in 2003. The prior year loss is primarily a result of the completion of two significant contracts performed by its Swiss-based subsidiary which were denominated in U.S. dollars where no such significant settlements occurred in 2005 and 2003.

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Discontinued operations. In October 2005, Discovery Partners sold the assets related to the IRORI® chemical synthesis, Crystal Farm® automated protein crystallization, and Universal Store compound storage system product lines for \$1.9 million, resulting in a net gain on sale of \$394,000. The results of discontinued operations presented in 2004 and 2003 relate to the assets sold in 2005.

Income taxes. At December 31, 2005, Discovery Partners had federal and California income tax net operating loss carryforwards of approximately \$28.9 million and \$14.7 million, respectively. In addition, Discovery Partners had foreign tax net operating loss carryforwards of approximately \$9.93 million, which will begin to expire in 2008. The difference between the federal and California net tax operating loss carryforwards is primarily attributable to the capitalization of research and development expenses and the percentage limitation on the carryover of net operating losses for California income tax purposes. The federal tax loss carryforwards will begin to expire in 2010 unless previously utilized. The California tax loss carryforwards will continue to expire in 2006. Discovery Partners also has federal and California research tax credit carryforwards of approximately \$2.7 million and \$1.4 million, respectively. The federal research tax credit carryforwards will begin to expire in 2011 unless previously utilized. The California research tax credits will carry forward indefinitely. Pursuant to Internal Revenue Code Sections 382 and 383, use of its net operating loss and credit carryforwards may be limited because of a cumulative change in ownership of more than 50%, which may have occurred for tax purposes. As of December 31, 2005, Discovery Partners had approximately \$30.2 million in tax-deductible goodwill and other intangibles related to the purchase of Axys Advanced Technologies in April 2000. The majority of this amount is amortized over a 15-year period for tax purposes. Discovery Partners has provided a 100% valuation allowance against the related deferred tax assets as realization of such tax benefits is uncertain.

Inflation

Discovery Partners does not believe that inflation has had a material impact on its business or operating results during the periods presented.

Liquidity and Capital Resources

Since its inception, Discovery Partners has funded its operations with \$39.0 million of private equity financings and \$94.7 million of net proceeds from its initial public offering in July 2000.

In May 2004 its secondary public offering was declared effective by the SEC. A total of 8,305,300 shares of common stock at a price of \$5.00 per share were made available to the public. Axys Pharmaceuticals, Inc., then a stockholder of Discovery Partners, registered 7,222,000 shares for resale, with the remaining 1,083,300 shares registered for sale by Discovery Partners to the underwriters to cover over-allotments. Discovery Partners received proceeds from the offering, of the shares registered for sale by it, of \$5.1 million net of underwriters discounts.

At March 31, 2006, cash and cash equivalents and short-term investments totaled approximately \$80.1 million, compared to \$83.5 million at December 31, 2005.

Operating Activities. Cash flows used in operating activities, from continuing operations, totaled \$2.6 million for the first quarter of 2006 compared to cash provided by operating activities, from continuing operations, of \$4.9 million in the first quarter of 2005. The decrease in operating cash flows in the first quarter of 2006 compared to the first quarter of 2005 was primarily due to Discovery Partners' net operating loss which more than offset proceeds received from its customers in the first quarter of 2006. Cash flows provided by operating activities for continuing operations totaled \$5.5 million in 2005 compared to \$3.7 million in 2004 and \$7.8 million in 2003. The increase in operating cash flows in 2005 compared to 2004 was primarily due to the impact of a reduction in working capital requirements, caused by lower revenue volumes, and the impact of non-cash adjustments related to asset impairment and restructuring charges which more than offset the impact of negative operating results for the year. The decrease in operating cash flows from 2004 compared to 2003 is

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primarily due to a significant decrease in prepayments received from its customers and a significant increase in 2003 incentives paid to key employees in the first quarter of 2004 offset partially by improved operating results, a decrease in inventory and a decrease in payments made against the restructuring accrual.

Additionally, on November 29, 2005, Discovery Partners announced the restructuring of its South San Francisco facility. The restructuring plan consisted of a reduction in workforce and the consolidation of excess facilities. As of March 31, 2006, Discovery Partners has incurred \$1.5 million of charges relating to the benefits payable to terminated employees and approximately \$1.0 million of charges related to lease obligations. Discovery Partners anticipates incurring an additional \$84,000 of termination benefits in the second quarter of 2006. Amounts are subject to changes based on actual terminations and actual sublease income.

Investing Activities. Cash provided by investing activities, from continuing operations, totaled \$3.5 million in the first quarter of 2006 compared to \$16.4 million in the first quarter of 2005. The decrease in cash provided by investing activities in the first quarter of 2006 compared to the first quarter of 2005 is due primarily to an increase in investment of highly liquid investments classified as cash equivalents versus short-term investments during the first quarter of 2006. Cash provided by investing activities from continuing operations totaled \$4.8 million in 2005 compared to cash used of \$5.2 million in 2004 and \$8.4 million in 2003. The increase in cash available from investing activities is primarily a result of a decrease in the investment of short-term marketable securities as Discovery Partners redirected more cash resources to highly liquid investments, reflected as cash equivalents. The decrease in cash used in investing activities in 2004 compared to 2003 is due primarily to a \$2.0 million royalty prepayment made in the first quarter of 2003 as required under its exclusive μ ARCS license agreement with Abbott Laboratories, which was fully impaired at December 2005. No additional prepayments are required under this agreement. Discovery Partners' primary objective for its investment portfolio is to preserve principal while maintaining adequate liquidity to meet projected cash requirements. A secondary objective is to achieve a yield on investments commensurate with the risk levels associated with the primary objective.

Discovery Partners currently anticipates investing approximately \$500,000 to \$600,000 during the remainder of 2006 for leasehold improvements and capital equipment necessary to support existing operational needs that remain under current purchase commitments. These capital expenditures primarily relate to operational requirements in support of the NIH contract.

Financing Activities. Cash provided by financing activities totaled \$24,000 and \$153,000 in the first quarter of 2006 and 2005, respectively. This change is primarily due to lower proceeds from the exercise of stock options.

Cash provided by financing activities totaled \$129,000 in 2005 compared to \$5.6 million in 2004 and cash used in financing activities totaling \$634,000 in 2003. This change is primarily due to the sale of approximately 1.1 million shares of its common stock generating \$5.1 million in net proceeds during the second quarter of 2004. Historically, Discovery Partners had debt obligations under lease and line of credit agreements. Net payments made under these agreements totaled \$245,000 in 2005 and \$1.1 million in 2003. As of March 31, 2006, Discovery Partners had no debt obligations.

On October 4, 2001, Discovery Partners' board of directors approved a Stock Repurchase Plan, authorizing Discovery Partners to repurchase up to 2,000,000 shares of common stock at no more than \$3.50 per share. In 2003, Discovery Partners purchased 115,000 shares under this plan for \$289,000. Discovery Partners did not purchase any shares in 2005 or 2004 pursuant to this plan. Under the merger agreement, Discovery Partners is restricted from purchasing additional shares under this plan.

As a result of the completion of the sale of all of Discovery Partners' operating subsidiaries and material operating assets on July 5, 2006, Discovery Partners' remaining cash requirements consist primarily of fees associated with the merger, including fees payable to financial advisors, consulting fees, legal and accounting

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support, key employee retention, severance and change of control benefits and ongoing compensation obligations for the 16 general and administrative personnel that remain with Discovery Partners as of the date the sale to Galapagos and Biofocus was completed. For the period from March 31, 2006 through the closing of the merger, Discovery Partners anticipates utilizing approximately \$4.5 million to \$8.5 million in transaction-related costs to complete the merger.

Contractual Obligations

Discovery Partners has entered into various agreements that obligate Discovery Partners to make future payments. The table below sets forth the contractual cash obligations that exist as of March 31, 2006:

Contractual Obligations	Total	Payments Due by Period			
		Less than 1 Year	1-3 Years	4-5 Years	More than 5 Years
Minimum license fees (A)	\$ 75,000	\$ 15,000	\$ 20,000	\$ 20,000	\$ 20,000
Firm purchase orders	676,375	676,375			
Operating leases	10,130,001	3,359,906	4,501,977	1,236,002	1,032,116
Employee commitments (B)	3,833,178	3,833,178			
Other contractual commitments (C)	3,036,000	3,036,000			
Total contractual cash obligations	\$ 17,750,554	\$ 10,920,459	\$ 4,521,977	\$ 1,256,002	\$ 1,052,116

(A) The terms of the license agreements generally range from the remaining life of the patent up to 25 years.

(B) On March 30, 2006, the compensation committee of Discovery Partners board of directors approved a severance and retention bonus plan for Discovery Partners key employees, including certain key executive officers, to remain with Discovery Partners throughout the process of implementing strategic initiatives, which include the sale or other disposition of Discovery Partners operating assets and the merger. In general, payments under these arrangements are contingent on various events.

(C) Amounts consist primarily of a contingent obligation, which could range between \$1.3 million and \$3.0 million, to Discovery Partners financial advisor in connection with the successful closing of the merger.

Discovery Partners does not have any off-balance sheet financing arrangements.

Recent Accounting Pronouncements

In November 2005, the FASB issued SFAS 115-1 and SFAS 124-1 relating to the determination and measurement of other-than-temporary losses for investments. The guidance in these statements shall be applied to reporting periods beginning after December 15, 2005 and earlier application is permitted. Discovery Partners does not believe adopting this statement will have a material impact on its financial condition or results of operation. There are no investments held at March 31, 2006, which are considered to be temporarily or other-than-temporarily impaired beyond 12 months. Discovery Partners will record an impairment charge if securities held continue to be impaired beyond twelve months or if other factors indicate there is permanent impairment. Discovery Partners regularly monitors and evaluates the realizable value of its marketable securities. When assessing marketable securities for other-than-temporary declines in value, Discovery Partners considers such factors as, among other things, how significant the decline in value is as a percentage of the original cost, how long the market value of the investment has been less than its original cost and the market in general. Discovery Partners believes that the decline in the value of its marketable securities is temporary and related to the change in market interest rates since purchase. The decline is not related to any company or industry specific event, and all portfolio investments are investment grade quality. Discovery Partners anticipates full recovery of amortized cost with respect to these securities at maturity or sooner in the event of a change in the market interest rate environment.

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QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT

DISCOVERY PARTNERS MARKET RISK

Short-Term Investments

Discovery Partners' interest income is sensitive to changes in the general level of U.S. interest rates, particularly since a significant portion of Discovery Partners' investments are and will be in short-term marketable securities, U.S. government securities, asset-backed securities and corporate bonds. Discovery Partners does not enter into investments for trading or speculative purposes. Due to the nature and maturity of Discovery Partners' short-term investments, Discovery Partners has concluded that there is no material market risk exposure to Discovery Partners' principal. The average maturity of Discovery Partners' investment portfolio is six months. A 1% change in interest rates would have an effect of approximately \$371,000 on the value of Discovery Partners' portfolio as determined at March 31, 2006.

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**INFINITY MANAGEMENT'S DISCUSSION AND ANALYSIS OF
FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

The following discussion and analysis of financial condition and results of operations should be read together with Selected Historical Financial Data of Infinity and Infinity's financial statements and accompanying notes appearing elsewhere in this joint proxy statement/prospectus. This discussion contains forward-looking statements, based on current expectations and related to future events and Infinity's future financial performance, that involve risks and uncertainties. Infinity's actual results may differ materially from those anticipated in these forward-looking statements as a result of many important factors, including those set forth under Risks Related to Infinity, Risks Related to the Combined Company and elsewhere in this joint proxy statement/prospectus.

Overview

Infinity's mission is to discover, develop, and deliver to patients first-in-class or best-in-class medicines for the treatment of cancer and related conditions. Infinity has built a pipeline of innovative product candidates for multiple cancer indications, all of which represent proprietary applications of Infinity's expertise in small molecule drug technologies.

In the near term, the key driver of Infinity's success will be its ability to successfully commence and complete clinical trials for its product candidates and advance the development of its discovery-stage research programs. In the longer term, the key driver of Infinity's success will be its ability to commercialize products based upon its proprietary technologies, either alone or in collaboration with others. Infinity's lead product candidate, IPI-504, is currently being studied in two Phase I clinical trials. Both trials are disease-focused and are targeting cancers that are refractory, or resistant, to other treatments. The first clinical trial is evaluating IPI-504 in patients who have multiple myeloma; the second is evaluating the compound in patients who have gastrointestinal stromal tumors. Infinity currently expects Phase II clinical trials of IPI-504 to begin by early 2007. Infinity's next most advanced product program is directed against the Hedgehog pathway, which has been implicated in many aggressive cancers, including certain cancers of the pancreas, prostate, lung, breast, and brain. The goal of Infinity's third program, which is in the discovery stage of research, and is being undertaken in collaboration with Novartis, is to identify inhibitors of the Bcl-2/Bcl-xL family of proteins. Bcl-2 and its related protein Bcl-xL act as brakes on programmed cell death and are key regulators of apoptosis. Many cancer cells have higher than normal levels of Bcl-2 and Bcl-xL. This allows them to evade apoptosis and, for example, become resistant to chemotherapy. Infinity is seeking to develop compounds for a broad range of cancers that target Bcl-2/Bcl-xL to inhibit its effect on cells. Infinity also has several other development programs in the discovery research stage that target cancer, hyperproliferative disorders and related conditions.

Infinity has entered into three technology access alliances relating to its diversity oriented synthesis technologies that have provided it with over \$65 million of up-front license fees, equity payments and other near-term committed revenues and, with respect to one such alliance, potential milestone and royalty payments upon successful commercial development of select products resulting from such alliance. Pursuant to these alliances, Novartis International Pharmaceutical Ltd., Amgen, Inc. and Johnson & Johnson Pharmaceutical Research & Development, a division of Janssen Pharmaceutica N.V., have been granted non-exclusive rights to use subsets of Infinity's collection of diversity oriented synthesis compounds in their own internal drug discovery programs.

Infinity has also entered into an alliance with Novartis Institutes for BioMedical Research, Inc. to discover, develop and commercialize drugs targeting the family of Bcl-2 proteins. Under the terms of the agreement, Novartis has paid Infinity \$15.0 million in up-front license fees, \$5.0 million in equity payments and has committed research funding of approximately \$10.0 million over the initial two-year research term. Assuming the strategic alliance continues for its full term and specified research, development and commercialization milestones are achieved for multiple products for multiple indications, Novartis has also agreed to make

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milestone payments totalling over \$370.0 million, such that total payments to Infinity could exceed \$400.0 million. In addition, Infinity is entitled to receive royalties upon successful commercialization of any products developed in the alliance. The two companies will conduct joint research to identify molecules for clinical development and, thereafter, Infinity may, under specified conditions, participate in clinical development, which will be led and paid for by Novartis worldwide. Upon commercialization, Infinity has an option to co-detail Bcl-2 family inhibitors in the United States with Infinity's detailing costs to be reimbursed by Novartis.

Infinity has incurred net losses since inception as it has devoted substantially all of its resources to research and development, including early-stage clinical trials. As of March 31, 2006, Infinity's accumulated deficit was approximately \$138 million. Infinity expects to incur substantial and increasing losses for the next several years as it continues to expend substantial resources seeking to successfully research, develop, manufacture, obtain regulatory approval for, market and sell any product candidates. Infinity expects that in the near term, it will incur substantial losses relating primarily to costs and expenses relating to its efforts to advance the development of IPI-504 and its Hedgehog pathway inhibitor program.

Infinity has not generated any revenue from the sale of drugs since its inception and does not expect to generate any revenue from the sale of drugs for the next several years. Because Infinity's product candidates are at an early stage of clinical and preclinical development and the outcome of these efforts is uncertain, Infinity cannot estimate the actual amounts necessary to successfully complete the development and commercialization of its product candidates or whether, or when, it may achieve profitability.

Infinity believes that its available cash and cash equivalents and short-term investments at March 31, 2006, without giving effect to the consummation of the merger, will provide sufficient funds to enable it to meet its ongoing working capital requirements at least through December 31, 2006. If the merger is not consummated and Infinity is unable to raise additional funds prior to that date, it may not have funds sufficient to allow it to continue in operational existence and to meet its liabilities beyond 2006. Infinity's ability to continue as a going concern beyond 2006 is dependent on its ability to access further cash resources through the successful conclusion of one of the following scenarios:

The consummation of the merger, which would give Infinity access to Discovery Partner's cash resources. Assuming the merger closes and Discovery Partners' net cash at closing is approximately \$70.0 million, Infinity believes that it would have sufficient funds to support its current operating plan through December 31, 2007.

If the merger is not completed, Infinity would be dependent on accessing additional capital necessary to fund its operations beyond December 31, 2006 through public or private equity offerings, debt financings, and/or collaborative and licensing arrangements. However, additional funds or other third-party arrangements may not be available in the near term or on terms that are acceptable to Infinity, if at all.

Infinity cannot assure you that the proposed merger with Discovery Partners will be completed or that Infinity's efforts to raise additional private or public funding will be successful. If adequate funds are not available in the near term, Infinity may be required to:

terminate or delay clinical trials of IPI-504 or Hedgehog pathway inhibitor program or one or more of its other preclinical drug candidates;

curtail significant discovery stage drug development programs that are designed to identify new drug candidates; and/or

relinquish rights to product candidates or development programs that it may otherwise seek to develop or commercialize itself.

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Financial Operations Overview

Revenue

All of Infinity's revenue to date has been derived from license fees, reimbursements of research and development costs and contract service revenue received from its strategic alliance partners. Because Infinity is the party responsible for providing the research services under these arrangements, Infinity recognizes the reimbursements of the costs associated with Infinity's research efforts as revenue, not as a net research expense, and recognizes these reimbursements as revenue as it incurs the related costs. In the future, Infinity will seek to generate revenue from a combination of product sales, upfront license fees, research and development support services and milestone payments in connection with strategic relationships, and royalties resulting from the license of its intellectual property. Infinity expects that any revenue it generates will fluctuate from quarter to quarter as a result of the timing and amount of research and development, milestone and other payments received under its collaborative or strategic relationships and related continuing obligations, and the amount and timing of payments it receives upon the sale of its products, to the extent any are successfully commercialized. If Infinity fails to complete the development of its drug candidates in a timely manner or obtain regulatory approval, Infinity's ability to generate future revenue, and its financial condition and results of operations, would be materially adversely affected.

Research and Development

Since inception, Infinity has focused on drug discovery and development programs, with particular emphasis on cancer drugs. Infinity currently has three lead programs in research and development:

IPI-504, for the treatment of refractory multiple myeloma and gastrointestinal stromal tumors, which is currently being studied in two Phase I clinical trials and for which Infinity expects to begin Phase II clinical trials in early 2007;

the Hedgehog pathway inhibitor program, a preclinical program seeking to develop candidate compounds directed against the Hedgehog pathway that is implicated in certain cancers and for which Infinity expects to begin clinical trials in 2007; and

its Bcl inhibitor program, which is currently in lead optimization in collaboration with Novartis.

Research and development expenses represented approximately 73%, 84%, 85%, 83%, and 83% of Infinity's total operating expenses for the years ended December 31, 2003, 2004 and 2005, and the three months ended March 31, 2005 and 2006, respectively. Infinity expenses research and development costs as incurred. Research and development expense consists of expenses incurred in identifying, researching, developing and testing product candidates. These expenses primarily consist of the following:

compensation of personnel associated with research activities, including consultants and contract research organizations;

laboratory supplies and materials;

manufacturing drug candidates for preclinical testing and clinical studies;

preclinical costs, including toxicology studies;

fees paid to professional service providers for independent monitoring and analysis of Infinity's clinical trials;

depreciation of equipment; and

allocated costs of facilities.

Infinity began to track and accumulate costs by major program starting on January 1, 2006. Infinity's major research and development costs prior to December 31, 2005 were largely related to IPI-504. During the three months ended March 31, 2006, Infinity estimates that it incurred the following expenses by program. These

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expenses relate primarily to payroll and related expenses for personnel working on the programs, drug development and manufacturing, preclinical toxicology studies and clinical trial costs.

Program	Three Months Ended March 31, 2006
IPI-504	\$ 1.4 million
Hedgehog Pathway Inhibitors	3.2 million
Bcl	1.1 million

Infinity does not believe that the historical costs associated with its lead drug development programs are indicative of the future costs associated with these programs or any other future drug development programs. Moreover, there is significant uncertainty regarding Infinity's ability to successfully develop any drug candidates. These risks include the uncertainty of:

the scope, rate of progress and cost of its clinical trials of IPI-504, its planned clinical trials of product candidates in the Hedgehog pathway inhibitor program and any other clinical trials it may commence in the future;

the scope, rate and progress of its preclinical studies and other research and development activities;

clinical trial results;

the cost of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights relating to its programs under development;

the terms and timing of any strategic alliance, licensing and other arrangements that it has or may establish relating to its programs under development;

the cost and timing of regulatory approvals;

the cost of establishing clinical supplies of any product candidates; and

the effect of competing technological and market developments.

A further discussion of some of the risks and uncertainties associated with completing Infinity's drug development programs on schedule, or at all, and the potential consequences of failing to do so, are set forth in [Risks Related to Infinity](#) elsewhere in this joint proxy statement/prospectus.

Because of the risks inherent in drug discovery and development, Infinity cannot reasonably estimate or know: the nature, timing and estimated costs of the efforts necessary to complete the development of its programs; the anticipated completion dates of these programs; or the period in which material net cash inflows are expected to commence, if at all, from the programs described above and any potential future product candidates. Any failure by Infinity or a strategic alliance partner to complete any stage of the development of any potential products in a timely manner could have a material adverse effect on Infinity's operations, financial position and liquidity.

General and Administrative

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General and administrative expense consists primarily of salaries and other related costs for personnel in executive, finance, accounting, business development, information technology infrastructure and human resource functions. Other costs include facility costs not otherwise included in research and development expense and professional fees for legal and accounting services.

General and administrative expense also consists of the costs of maintaining and overseeing Infinity's intellectual property portfolio, which include the salaries of in-house legal counsel, the cost of external counsel and the associated filing and maintenance fees.

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Following the merger, Infinity anticipates increases in general and administrative expense for investor relations and other activities associated with operating as a publicly-traded company, including costs incurred in connection with maintaining compliance with the Sarbanes-Oxley Act of 2002. These increases also will likely include the hiring of additional personnel. Infinity expects that it will continue to incur increased internal and external business development costs to support its various product development efforts, which may vary from period to period.

Interest and Investment Income and Expense

Interest and other income and expense consist primarily of interest earned on cash, cash equivalents and short-term investments, net of interest expense and amortization of issuance costs of Infinity's outstanding series A and B preferred stock warrants.

Results of Operations**Comparison of the Three Months Ended March 31, 2005 and 2006**

The following table summarizes Infinity's results of operations with respect to the items set forth in such table for the three months ended March 31, 2005 and 2006, in thousands, together with the change in such items in dollars and as a percentage.

	For the Three Months Ended March 31,			
	2005	2006	\$ Change	% Change
Revenue		\$ 719	\$ 719	100%
Research and Development Expenses	\$ 7,032	9,678	2,646	38%
General and Administrative Expenses	1,400	1,973	573	41%
Interest Expense	(226)	(142)	84	(37%)
Interest and Investment Income	259	194	(65)	(25%)

Revenue. Infinity recorded no revenue in the 2005 period. Revenue in the 2006 period was a result of the strategic alliance agreement entered into in February 2006 with Novartis. Infinity anticipates recognizing approximately \$6.5 million of revenue under the 2006 Novartis agreement in the last nine months of 2006, consisting of the amortization of the license fee received under the agreement, which is being amortized over the expected four-year term of the agreement, and the monthly reimbursement of research and development funding related to the agreement, assuming that such agreement continues in accordance with its terms. Furthermore, Infinity anticipates recognizing approximately \$1.0 million in the last nine months of 2006, related to the Johnson & Johnson technology access agreement, assuming that such agreement continues in accordance with its terms, and assuming Infinity successfully delivers the required chemical compounds pursuant to the agreement.

Research and Development Expenses. The principal components of the research and development expense increase in the 2006 period when compared to the 2005 period were as follows: (1) an increase of \$2.0 million for external costs of clinical trials related to IPI-504, toxicology studies primarily related to the Hedgehog pathway inhibitor program, other preclinical testing, and manufacturing for preclinical testing and/or clinical trials of IPI-504, and Hedgehog pathway inhibitor product candidates; and (2) an increase of \$550,000 for personnel costs due to new hires since March 31, 2005, annual salary raises and costs associated with expensing stock option grants of \$239,182.

General and Administrative Expenses. The increase in general and administrative expense in the 2006 period when compared to the 2005 period principally was a result of: (1) an increase of \$300,000 related to legal expenses for intellectual property and strategic alliance agreement work; and (2) costs associated with expensing stock option grants of \$243,304.

Interest Expense. Interest expense declined in the 2006 period when compared to the 2005 period as Infinity began to pay off the principal amount of its outstanding debt, resulting in a decrease in related interest expense.

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Interest and Investment Income. The decrease in interest and investment income in the 2006 period when compared to the 2005 period was a result of lower average balances of cash, cash equivalents and investments offset slightly by higher yields earned on Infinity's investments due to an increase in interest rates.

Comparison of the Year Ended December 31, 2004 and 2005

The following table summarizes Infinity's results of operations with respect to the items set forth in such table for the years ended December 31, 2004 and 2005, together with the change in such items in dollars and as a percentage.

	Years Ended December 31			% Change
	2004	2005	\$ Change	
Revenue		\$ 522	\$ 522	100%
Research and Development Expenses	\$ 28,396	31,460	3,064	11%
General and Administrative Expenses	5,290	5,530	240	5%
Interest Expense	(1,005)	(784)	221	(22%)
Interest and Investment Income	603	883	280	46%

Revenue. Infinity recorded no revenue in 2004. Revenue in 2005 was a result of the technology access agreement entered into with Johnson & Johnson in December 2004. In 2005, Infinity successfully delivered a number of acceptable compounds to Johnson & Johnson and, accordingly, recognized revenue relating to the delivery of those compounds. Infinity anticipates recognizing approximately \$1.0 million of revenue in 2006 related to the Johnson & Johnson agreement assuming the agreement continues in accordance with its terms and Infinity delivers additional required chemical compounds pursuant to the agreement.

Research and Development Expenses. The principal components of the research and development expense increase in 2005 when compared to 2004 were as follows: (1) an increase of \$2.4 million for external costs of clinical trials relating to IPI-504 and toxicology studies for IPI-504 and Hedgehog pathway inhibitor product candidates and manufacturing for preclinical testing and/or clinical trials of IPI-504 and Hedgehog pathway inhibitor product candidates; and (2) an increase of approximately \$600,000 for personnel costs, research supplies and other costs relating to research and development activities, including laboratory equipment-related expenses and research and development facilities.

General and Administrative Expenses. General and administrative expenses increased in 2005 when compared to 2004 principally due to increases of: (1) \$100,000 for personnel costs and related expenses; and (2) \$150,000 for legal, intellectual property and trademark costs and investor relations cost.

Interest Expense. Interest expense declined in 2005 when compared to 2004 as a result of Infinity beginning to pay off the principal amount of its outstanding debt resulting in a decrease in related interest expense.

Interest and Investment Income. Interest and investment income increased in 2005 when compared to 2004 due to higher yields earned on Infinity's investments due to an increase in interest rates, which was slightly offset by lower average balances of cash, cash equivalents and investments in 2005.