

HOLOGIC INC
Form 424B3
September 12, 2007
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DATED SEPTEMBER 12, 2007

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File No. 333-144238

MERGER PROPOSED YOUR VOTE IS VERY IMPORTANT

The boards of directors of Hologic, Inc., or Hologic, and Cytyc Corporation, or Cytyc, have approved a business combination of the two companies pursuant to the terms of an Agreement and Plan of Merger dated as of May 20, 2007. Pursuant to the terms of the merger agreement, Cytyc will be merged into a wholly owned subsidiary of Hologic. Following the completion of the merger, Cytyc stockholders will own approximately 55% of the outstanding common stock of the combined company and Hologic stockholders will own approximately 45% of the outstanding common stock of the combined company.

The combined company will be named Hologic, Inc., and the shares of the combined company will be traded on the Nasdaq Global Select Market, under the symbol HOLX.

Under the terms of the merger agreement, Cytyc's stockholders will receive 0.52 of a share of Hologic common stock and \$16.50 in cash for each share of Cytyc common stock. Cytyc stockholders will receive cash for any fractional shares which they would otherwise receive in the merger. Hologic stockholders will continue to own their existing shares after the merger. Hologic common stock is traded on the Nasdaq Global Select Market under the symbol HOLX. On September 11, 2007, the last practicable day before the mailing of this joint proxy statement/prospectus, the closing price per share of Hologic common stock as reported by the Nasdaq Global Select Market was \$53.74.

YOUR VOTE IS IMPORTANT. The merger cannot be completed unless, among other things, Cytyc stockholders adopt the merger agreement, and Hologic stockholders approve an amendment to Hologic's certificate of incorporation, which we refer to as the Hologic charter, and approve the issuance of Hologic common stock to Cytyc stockholders in the merger.

The Hologic board of directors unanimously recommends that Hologic stockholders vote FOR the amendment to the Hologic charter to increase the number of authorized shares of Hologic common stock and FOR the issuance of Hologic common stock to Cytyc stockholders in the merger. The Cytyc board of directors unanimously recommends that Cytyc stockholders vote FOR the adoption of the merger agreement and the transactions contemplated thereby, including the merger.

Hologic and Cytyc will each hold a special meeting of their respective stockholders to vote on these proposals. Whether or not you plan to attend your company's special meeting, please take the time to vote by completing and mailing the enclosed proxy card or submitting your proxy by telephone or through the Internet using the procedures in the proxy voting instructions included with your proxy card. Even if you return the proxy, you may attend your company's special meeting and vote your shares in person.

This joint proxy statement/prospectus describes the proposed merger and related transactions in more detail. **Hologic and Cytyc encourage you to read the entire joint proxy statement/prospectus carefully, including the merger agreement, which is attached as Annex A, and the section entitled Risk Factors beginning on page 26.**

We strongly support the combination of our companies and join with our respective boards of directors in recommending that you vote in favor of the proposals presented in this joint proxy statement/prospectus.

Sincerely,

Sincerely,

John W. Cumming

Patrick J. Sullivan

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Chairman and Chief Executive Officer

Chairman, Chief Executive Officer and President

HOLOGIC, INC.

CYTYC CORPORATION

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the securities to be issued under this joint proxy statement/prospectus or determined if this joint proxy statement/prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

This joint proxy statement/prospectus is dated September 12, 2007 and, together with the accompanying proxy card, is first being mailed or otherwise distributed to stockholders of Hologic and Cytac on or about September 17, 2007.

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THIS JOINT PROXY STATEMENT/PROSPECTUS INCORPORATES

ADDITIONAL INFORMATION

Hologic

This joint proxy statement/prospectus incorporates by reference important business and financial information about Hologic from other documents filed with the Securities and Exchange Commission, which is referred to as the SEC, that are not included in or delivered with this joint proxy statement/prospectus. This information is available to you without charge upon your written or oral request. For a list of the documents incorporated by reference into this joint proxy statement/prospectus, see *Where You Can Find More Information* beginning on page 197. You can obtain the documents that are incorporated by reference into this joint proxy statement/prospectus, without charge, from the Investor Relations section of Hologic's website at www.hologic.com or by requesting them in writing or by telephone as set forth below:

By Mail: Hologic, Inc.
35 Crosby Drive
Bedford, MA 01730

By Telephone: (781) 999-7300

If you would like to request any documents, please do so by October 11, 2007 in order to receive them before the Hologic special meeting.

Cytc

Cytc is subject to the informational filing requirements of the Securities Exchange Act of 1934, as amended, which is referred to as the Exchange Act, and, in accordance therewith, is obligated to file reports, proxy statements and other information with the SEC relating to its business, financial condition and other matters. The information filed by Cytc with the SEC may be inspected at the SEC's public reference library at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. Copies of such information may be obtained by mail, upon payment of the SEC's customary charges, by writing to the SEC's principal office at 100 F Street, N.E., Washington D.C. 20549. The SEC also maintains a website at www.sec.gov that contains the information that Cytc has filed with the SEC via the EDGAR system. Documents filed with the SEC by Cytc also are available free of charge on the investor relations portion of the Cytc website at www.cytc.com. At the present time, Cytc is not eligible to incorporate by reference the information filed with the SEC into this joint proxy statement/prospectus and accordingly has included the required business and financial information in this joint proxy statement/prospectus. The business and financial information about Cytc is attached hereto as Annex B.

Use of Non-GAAP Financial Measures

This joint proxy statement/prospectus includes non-GAAP financial measures, such as adjusted earnings per share, or adjusted EPS, and EBITDA. Adjusted EPS excludes the write-off and amortization of acquisition-related intangible assets, and tax provisions/benefits related thereto. EBITDA is defined as net earnings (loss) before interest, taxes, depreciation and amortization expense. Hologic and Cytc believe that the use of these non-GAAP measures helps investors to gain a better understanding of our respective core operating results and future prospects, consistent with how management measures and forecasts our respective performance, especially when comparing such results to previous periods or forecasts. When analyzing Hologic's operating performance, investors should not consider these non-GAAP financial measures as a substitute for net income prepared in accordance with U.S. generally accepted accounting principles, referred to as U.S. GAAP or GAAP.

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VOTING ELECTRONICALLY, BY TELEPHONE, BY MAIL OR IN PERSON

Hologic stockholders of record as of the close of business on August 22, 2007 may submit their proxies:

through the Internet, by visiting the website established for that purpose at www.voteproxy.com and following the instructions set forth therein;

by telephone, by calling toll-free 1-800-PROXIES (1-800-776-9437) in the United States, Canada or Puerto Rico on a touch-tone phone and following the recorded instructions; or

by mail, by marking, signing, and dating your proxy card and returning it in the postage-paid envelope provided or pursuant to the instructions set out in the proxy card.

In addition, a Hologic stockholder may attend the Hologic special meeting in person and vote in person. If your shares are held in street name, you must request a legal proxy from your nominee as proof of ownership in order to vote in person at the special meeting.

Cytc stockholders of record as of the close of business on August 22, 2007 may submit their proxies:

through the Internet, by visiting the website established for that purpose at www.investorvote.com and following the instructions set forth therein;

by telephone, by calling toll-free 1-800-652-VOTE (1-800-652-8683) in the United States, Canada or Puerto Rico on a touch-tone phone and following the recorded instructions; or

by mail, by marking, signing, and dating your proxy card and returning it in the postage-paid envelope provided or pursuant to the instructions set out in the proxy card.

In addition, a Cytc stockholder may attend the Cytc special meeting and vote in person. If your shares are held in street name, you must request a legal proxy from your nominee as proof of ownership in order to vote in person at the special meeting.

If you hold your shares in street name, please refer to your proxy card or the information forwarded by your bank, broker or other holder of record to see which options are available to you.

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NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

To Be Held On October 18, 2007

Dear Stockholder:

NOTICE IS HEREBY GIVEN that a special meeting of stockholders of Hologic, Inc. will be held on October 18, 2007 at 9:00 a.m., local time, at Hologic's principal executive offices located at 35 Crosby Drive, Bedford, Massachusetts 01730 (the "Hologic special meeting").

The purpose of the Hologic special meeting is to consider and to vote on the following proposals:

to approve an amendment to Hologic's Certificate of Incorporation, as amended, which is referred to as the Hologic charter, effective immediately prior to the effective time of the merger, to increase the authorized number of shares of Hologic common stock from 90,000,000 to 300,000,000;

to approve the issuance of shares of Hologic common stock to stockholders of Cytac Corporation in connection with the merger contemplated by the Agreement and Plan of Merger dated as of May 20, 2007, among Hologic, Cytac and Nor-easter Corp., a wholly owned subsidiary of Hologic formed for the purpose of the merger;

to approve the Hologic, Inc. Senior Executive Short-Term Incentive Plan;

to approve an amendment to Hologic's Second Amended and Restated 1999 Equity Incentive Plan, which amendment will become effective if the merger is completed; and

if submitted to a vote of Hologic stockholders, to approve an adjournment of the special meeting, including, if necessary, to solicit additional proxies in favor of the foregoing proposals if there are not sufficient votes for those proposals.

The Hologic board of directors has unanimously determined that the merger agreement, the merger and the other transactions contemplated therein, including the amendment to the Hologic charter and the issuance of Hologic common stock in the merger, are advisable and in the best interests of Hologic and its stockholders. The Hologic board of directors recommends that Hologic stockholders vote **FOR** the amendment to the Hologic charter, **FOR** the issuance of Hologic common stock in the merger, **FOR** the approval of the Hologic, Inc. Senior Executive Short-Term Incentive Plan, **FOR** the approval of an amendment to Hologic's Second Amended and Restated 1999 Equity Incentive Plan and **FOR** the adjournment of the special meeting, including, if necessary, to solicit additional proxies in favor of any of the proposals to be acted upon at the Hologic special meeting.

Hologic and Cytac cannot complete the merger unless:

the proposed amendment to the Hologic charter is approved by the affirmative vote of a majority of the outstanding shares of Hologic common stock entitled to vote on the proposal; and

the issuance of shares of Hologic common stock to Cytac stockholders in the merger is approved by the affirmative vote of a majority of the votes cast in person or by proxy on the proposal.

Your failure to vote will have the same effect as a vote against the approval of the Hologic charter amendment.

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The close of business on August 22, 2007 has been fixed as the record date, which is referred to as the Hologic record date, for the determination of Hologic stockholders who are entitled to notice of, and to vote at, the Hologic special meeting or any adjournments or postponements of the Hologic special meeting. Only holders of Hologic common stock of record at the close of business on August 22, 2007 are entitled to notice of, and to vote at, the Hologic special meeting or any adjournments or postponements of the Hologic special meeting. A

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complete list of the holders of Hologic common stock entitled to vote at the Hologic special meeting will be available for examination by any Hologic stockholder, for any purpose germane to the Hologic special meeting, at Hologic's principal executive offices at 35 Crosby Drive, Bedford, Massachusetts 01730, for a period of ten days before the Hologic special meeting, between the hours of 9:00 a.m. and 4:00 p.m., local time, and at the Hologic special meeting during the entire time of the meeting.

We direct your attention to the joint proxy statement/prospectus accompanying this notice for a more complete statement regarding the matters proposed to be acted upon at the Hologic special meeting. **We encourage you to read the entire joint proxy statement/prospectus carefully, including the merger agreement, which is attached as Annex A to the joint proxy statement/prospectus, and the section entitled Risk Factors beginning on page 26.**

YOUR VOTE IS VERY IMPORTANT. WHETHER OR NOT YOU PLAN TO ATTEND THE HOLOGIC SPECIAL MEETING, PLEASE VOTE AS SOON AS POSSIBLE BY MAIL, BY TELEPHONE OR THROUGH THE INTERNET. INSTRUCTIONS ON THESE DIFFERENT WAYS TO VOTE YOUR PROXY ARE FOUND ON THE ENCLOSED PROXY CARD. YOU MAY REVOKE YOUR PROXY AT ANY TIME BEFORE IT IS VOTED AT THE HOLOGIC SPECIAL MEETING BY FOLLOWING THE PROCEDURES SET FORTH IN THE ACCOMPANYING JOINT PROXY STATEMENT/PROSPECTUS. REMEMBER, YOUR VOTE IS IMPORTANT, SO PLEASE VOTE PROMPTLY!

By Order of the Board of Directors,

John W. Cumming

Chairman of the Board and Chief Executive Officer

September 12, 2007

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NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

To Be Held On October 18, 2007

To the Stockholders of Cytac Corporation:

Cytac Corporation (Cytac) is pleased to invite you to attend a special meeting of the stockholders of Cytac which will be held on October 18, 2007 at 9:00 a.m., local time, at The Hilton Boston Logan Airport, One Hotel Drive, Boston, Massachusetts 02128 (the Cytac special meeting).

The purpose of the Cytac special meeting is to consider and to vote on the following proposals:

to adopt the Agreement and Plan of Merger, dated as of May 20, 2007, among Cytac, Hologic, Inc. (Hologic) and Nor easter Corp., a wholly owned subsidiary of Hologic formed for the purpose of the merger (MergerSub), a copy of which is attached as Annex A to the joint proxy statement/prospectus, and the transactions contemplated thereby, including the merger, pursuant to which Cytac will merge with and into MergerSub, with MergerSub continuing as the surviving corporation under the name Cytac Corporation and as a wholly owned subsidiary of Hologic; and

if submitted to a vote of Cytac stockholders, to approve an adjournment of the Cytac special meeting, including, if necessary, to solicit additional proxies in favor of the proposal to adopt the merger agreement if there are not sufficient votes for that proposal at the time of the meeting.

The Cytac board of directors has unanimously determined that the merger agreement and the transactions contemplated thereby are advisable and fair to and in the best interests of Cytac and its stockholders, unanimously authorized, adopted and approved the merger agreement and the transactions contemplated thereby, including the merger, and recommends that Cytac stockholders vote **FOR** the adoption of the merger agreement and the transactions contemplated thereby, including the merger, and **FOR** the adjournment of the Cytac special meeting, including, if necessary, to solicit additional proxies in favor of the adoption of the merger agreement.

Hologic and Cytac cannot complete the merger unless the proposal to adopt the merger agreement is approved by the affirmative vote of a majority of the outstanding shares of Cytac common stock entitled to vote at the Cytac special meeting.

Your failure to vote will have the same effect as a vote against the adoption of the merger agreement. Therefore, your vote is very important.

The close of business on August 22, 2007 has been fixed as the record date, which is referred to as the Cytac record date, for the determination of Cytac stockholders entitled to notice of, and to vote at, the Cytac special meeting or any adjournments or postponements of the Cytac special meeting. Only holders of record of Cytac common stock at the close of business on the Cytac record date are entitled to notice of, and to vote at, the Cytac special meeting. A complete list of stockholders entitled to vote at the Cytac special meeting will be available for examination by any Cytac stockholder, during normal business hours, at Cytac s headquarters at 250 Campus Drive, Marlborough, Massachusetts 01752 for purposes pertaining to the Cytac special meeting for a period of ten days before the Cytac special meeting, and at the Cytac special meeting during the entire time of the meeting.

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We direct your attention to the joint proxy statement/prospectus accompanying this notice for more detailed information regarding the matters proposed to be acted upon at the Cytoc special meeting. **You are encouraged to read the entire joint proxy statement/prospectus carefully, including the merger agreement, which is attached as Annex A to the joint proxy statement/prospectus, and the section entitled Risk Factors beginning on page 26 of the joint proxy statement/prospectus.**

Holders of Cytoc common stock who do not vote in favor of adopting the merger agreement and who otherwise comply with the requirements of Delaware law will be entitled to appraisal rights. A summary of the applicable Delaware law provision, including the requirements a Cytoc stockholder must follow in order to exercise his or her appraisal rights, is contained in the accompanying joint proxy statement/prospectus.

SO THAT YOUR SHARES WILL BE REPRESENTED WHETHER OR NOT YOU PLAN TO ATTEND THE CYTYC SPECIAL MEETING, PLEASE VOTE AS SOON AS POSSIBLE BY: (1) ACCESSING THE INTERNET WEBSITE SPECIFIED ON YOUR PROXY CARD; (2) CALLING THE TOLL-FREE NUMBER SPECIFIED ON YOUR PROXY CARD; OR (3) SIGNING, DATING AND MAILING THE ENCLOSED PROXY CARD. YOU MAY REVOKE YOUR PROXY AT ANY TIME BEFORE IT IS VOTED AT THE CYTYC SPECIAL MEETING BY FOLLOWING THE PROCEDURES SET FORTH IN THE ACCOMPANYING JOINT PROXY STATEMENT/PROSPECTUS. **REMEMBER, YOUR VOTE IS IMPORTANT, SO PLEASE ACT PROMPTLY.**

By Order of the Board of Directors,

Patrick J. Sullivan

Chairman, Chief Executive Officer and President

September 12, 2007

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QUESTIONS AND ANSWERS ABOUT THE MERGER

The following are some questions that you, as a stockholder of Hologic or Cytyc, may have regarding the merger and the other matters being considered at the stockholders' meetings and the answers to those questions. Hologic and Cytyc urge you to read carefully the entire joint proxy statement/prospectus because the information in this section does not provide all the information that might be important to you with respect to the merger and the other matters being considered at the stockholders' meetings. Additional important information is also contained in the annexes to and the documents incorporated by reference into this joint proxy statement/prospectus.

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

A: Hologic and Cytyc are proposing to combine the two companies in a merger transaction pursuant to the terms of a merger agreement that is described in this joint proxy statement/prospectus. In the merger, Cytyc will be merged with and into a wholly owned subsidiary of Hologic that was formed for the purpose of the merger, with the Hologic subsidiary surviving the merger and remaining a wholly owned subsidiary of Hologic under the name Cytyc Corporation. A copy of the merger agreement is attached to this joint proxy statement/prospectus as Annex A.

In order to complete the merger, Hologic stockholders must approve an amendment to Hologic's charter to increase the number of authorized shares of Hologic common stock and approve the issuance of shares of Hologic common stock in connection with the merger, and Cytyc stockholders must adopt the merger agreement and the transactions contemplated thereby, including the merger. In addition, all other conditions to the merger must be satisfied or waived.

Neither the amendment to the Hologic charter nor the issuance of Hologic common stock in connection with the merger will take place unless both of these proposals are approved by Hologic stockholders and the merger is completed. Hologic will hold a special meeting of its stockholders, referred to as the Hologic special meeting, to obtain the required approvals of Hologic stockholders, and Cytyc will hold a special meeting of its stockholders, referred to as the Cytyc special meeting, to obtain the required approval of Cytyc stockholders.

Q: What will I receive in the merger?

A: *Hologic stockholders.* Each share of Hologic common stock held by Hologic stockholders immediately before the merger will continue to represent one share of Hologic common stock after the effective time of the merger. In other words, Hologic stockholders will receive no consideration in the merger and the merger will not change the number of shares a Hologic stockholder currently owns.

Cytyc stockholders. For each share of Cytyc common stock held immediately before the effective time of the merger, Cytyc stockholders will have the right to receive 0.52 of a share of Hologic common stock and \$16.50 in cash without interest. Cytyc stockholders will also receive cash for any fractional shares of Hologic common stock that they would otherwise receive in the merger. The amount of cash for fractional shares will be calculated by multiplying the fraction of a share of Hologic common stock to which the Cytyc stockholder would be entitled to receive in the merger by the closing sale price of a share of Hologic common stock on the closing date of the merger.

Hologic and Cytyc expect that, upon completion of the merger, assuming conversion of all of Cytyc's outstanding 2.25% Senior Convertible Notes due 2024, approximately 55% of the outstanding common stock of Hologic will be held by former Cytyc stockholders, and approximately 45% of the outstanding common stock of Hologic will be held by current Hologic stockholders.

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Q: How will Hologic pay for the cash portion of the merger consideration?

A: Hologic has received a firm financing commitment from Goldman Sachs Credit Partners L.P., Bank of America, N.A., Banc of America Securities LLC, Banc of America Bridge LLC, Citigroup Global Markets Inc., JPMorgan Chase Bank, N.A., and J.P. Morgan Securities Inc., collectively referred to as the arrangers, in which the arrangers committed to provide, in the aggregate, financing of up to approximately \$2.55 billion to pay for the cash portion of the merger consideration, for repayment of existing debt of Hologic and Cytac, for expenses relating to the merger and for working capital following the completion of the merger. For a more detailed description of the terms of the financing and the commitment letter, see *The Merger Financing of the Merger* beginning on page 59, and for information about certain risks related to the financing, see *Risk Factors Risks Related to Indebtedness of the Combined Company* beginning on page 30.

Q: Is the merger expected to be taxable to stockholders?

A: Hologic and Cytac intend for the merger to qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended, which we refer to as the Code. If you are a Cytac stockholder, you generally will recognize income or gain for U.S. federal income tax purposes equal to the lesser of (i) the amount of cash (excluding cash that you receive in lieu of fractional shares of Hologic common stock) that you receive and (ii) the amount of gain that you realize, which generally is equal to the sum of (a) the amount of cash that you receive plus (b) the fair market value of any Hologic common stock that you receive, over your tax basis in the shares of Cytac common stock that you surrender pursuant to the merger. In addition, if you receive cash in lieu of a fractional share of Hologic common stock, you will recognize gain or loss based on the difference between the cash you receive for such fractional share and your tax basis allocable to the fractional share.

You should read *Material United States Federal Income Tax Consequences of the Merger* beginning on page 111 for a more complete discussion of the United States federal income tax consequences of the merger.

If you are a Hologic stockholder, you will simply retain your shares of Hologic common stock, and the merger therefore will not be taxable to you.

Tax matters can be complicated and the tax consequences of the merger to you will depend on your particular tax situation. We recommend that you consult your tax advisor to determine the tax consequences of the merger to you.

Q: When and where are the Hologic and Cytac special meetings?

A: *Hologic special meeting.* The Hologic special meeting will be held on October 18, 2007 at 9:00 a.m., local time, at Hologic's principal executive offices located at 35 Crosby Drive, Bedford, Massachusetts 01730, to consider and vote on the proposals related to the merger and certain other proposals.

Cytac special meeting. The Cytac special meeting will be held on October 18, 2007 at 9:00 a.m., local time, at The Hilton Boston Logan Airport, One Hotel Drive, Boston, Massachusetts 02128 to consider and vote on the proposals related to the merger.

Q: What are Hologic stockholders being asked to vote on?

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- A: Hologic stockholders are being asked to vote (i) to approve an amendment to the Hologic charter to increase the number of authorized shares of Hologic common stock, (ii) to approve the issuance of shares of Hologic common stock to Cytoc stockholders in connection with the merger, (iii) to approve the Hologic, Inc. Senior Executive Short-Term Incentive Plan, (iv) to approve an amendment to Hologic's Second Amended and Restated 1999 Equity Incentive Plan, and (v) if submitted to a vote of Hologic stockholders, to approve the adjournment of the Hologic special meeting, including, if necessary, to solicit additional proxies in favor of any of the foregoing proposals.

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Q: Why are Hologic stockholders being asked to approve the Hologic, Inc. Senior Executive Short-Term Incentive Plan?

A: Hologic is submitting the Hologic, Inc. Senior Executive Short-Term Incentive Plan for stockholder approval as required by Section 162(m) of the Code. If the plan is approved by stockholders and the terms of the plan are satisfied, the payment of bonuses to certain executive officers of Hologic will be fully deductible by Hologic as qualified performance-based compensation under Section 162(m) of the Code.

Q: Why are Hologic stockholders being asked to approve an amendment to Hologic's Second Amended and Restated 1999 Equity Incentive Plan?

A: Hologic is submitting the amendment to Hologic's Second Amended and Restated 1999 Equity Incentive Plan for stockholder approval for the purpose of increasing the number of shares of common stock available for issuance under that plan by 4,000,000 shares effective upon completion of the merger. Following completion of the merger, the combined company will be a much larger company with significantly more employees. The Hologic board of directors believes the combined company will need a significant number of shares available to provide equity-based incentive compensation to the directors, officers and other employees of the combined company following the merger.

Q: What are Cytyc stockholders being asked to vote on?

A: Cytyc stockholders are being asked to vote (i) to adopt the merger agreement and the transactions contemplated thereby, including the merger, and (ii) if submitted to a vote of the Cytyc stockholders, to approve the adjournment of the Cytyc special meeting, including, if necessary, to solicit additional proxies in favor of the proposal to adopt the merger agreement.

Q: What vote by Hologic stockholders is required to approve the proposals to be submitted to Hologic stockholders at the Hologic special meeting?

A: The affirmative vote of a majority of the outstanding shares of Hologic common stock entitled to vote at the Hologic special meeting is required for approval of the amendment to Hologic's charter to increase the number of authorized shares of Hologic common stock from 90,000,000 to 300,000,000.

The affirmative vote of a majority of the votes cast in person or by proxy at the Hologic special meeting is required to approve the proposals relating to the issuance of Hologic common stock to Cytyc stockholders in the merger, the approval of the Hologic, Inc. Senior Executive Short-Term Incentive Plan and the approval of the amendment to Hologic's Second Amended and Restated 1999 Equity Incentive Plan.

The affirmative vote of a majority of votes cast in person or by proxy, whether or not a quorum is present at the Hologic special meeting, is required for stockholders to approve the proposal to adjourn the Hologic special meeting.

Q: What vote by Cytyc stockholders is required to approve the proposals to be submitted to Cytyc stockholders at the Cytyc special meeting?

A:

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The affirmative vote of a majority of the outstanding shares of Cytoc common stock entitled to vote at the Cytoc special meeting is required to adopt the merger agreement and the transactions contemplated thereby, including the merger.

The affirmative vote of a majority of votes cast in person or by proxy, whether or not a quorum is present at the Cytoc special meeting, is required for stockholders to approve the proposal to adjourn the Cytoc special meeting.

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Q: Who can vote at the Hologic special meeting?

A: Hologic stockholders can vote at the Hologic special meeting if they owned shares of Hologic common stock at the close of business on August 22, 2007, the record date for the Hologic special meeting. As of the close of business on that day, 53,947,712 shares of Hologic common stock were outstanding.

Q: Who can vote at the Cytyc special meeting?

A: Cytyc stockholders can vote at the Cytyc special meeting if they owned shares of Cytyc common stock at the close of business on August 22, 2007, the record date for the Cytyc special meeting. As of the close of business on that day, 117,627,349 shares of Cytyc common stock were outstanding.

Q: Why is my vote important?

A: In order to complete the merger, Hologic stockholders must approve the amendment to the Hologic charter to increase the number of authorized shares of Hologic common stock and the issuance of Hologic common stock to Cytyc stockholders in the merger, and Cytyc stockholders must adopt the merger agreement and the transactions contemplated thereby, including the merger.

Hologic stockholders.

If you abstain from voting or do not vote (either in person or by proxy), or fail to direct your broker how to vote, it will have the same effect as a vote AGAINST the proposal to approve the amendment to the Hologic charter.

If you abstain from voting or do not vote (either in person or by proxy), or fail to direct your broker how to vote, it will have NO EFFECT on the proposals to approve the issuance of shares of Hologic common stock to Cytyc stockholders in the merger, the Hologic, Inc. Senior Executive Short-Term Incentive Plan, the amendment to Hologic's Second Amended and Restated 1999 Equity Incentive Plan or to adjourn the Hologic special meeting to solicit additional proxies in favor of any of the foregoing proposals to be acted upon at the Hologic special meeting.

Cytyc stockholders.

If you abstain from voting or do not vote (either in person or by proxy), or fail to direct your broker how to vote, it will have the same effect as a vote AGAINST the proposal to adopt the merger agreement and the transactions contemplated thereby, including the merger.

If you abstain from voting or do not vote (either in person or by proxy), or fail to direct your broker how to vote, it will have NO EFFECT on the proposal to adjourn the Cytyc special meeting to solicit additional proxies in favor of the proposal to adopt the merger agreement.

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

A:

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Your broker is not permitted to decide how your shares should be voted. Your broker will only vote your shares on a proposal if you provide your broker with voting instructions on that proposal. You should instruct your broker to vote your shares by following the directions that your broker provides you. **Please check the voting information form used by your broker to see if it offers telephone or Internet voting.**

Q: What if I fail to instruct my broker?

A: If you fail to instruct your broker to vote your shares, they will not be voted at your company's special meeting and will have the consequences set forth under Why is my vote important?

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Q: What will happen if I return my proxy card without indicating how to vote?

A. If you sign and send in your proxy and do not indicate how you want to vote on any particular proposal, the Hologic or Cytyc common stock represented by your proxy will be voted **FOR** that proposal.

Q: What do I do if I want to change my vote?

A. You can change your vote at any time before your proxy is voted at your company's special meeting. You can do this in one of four ways:

you can send a signed notice of revocation;

you can grant a new, valid proxy by executing a new proxy card bearing a later date;

you can vote at a later time by telephone or through the Internet; or

if you are a holder of record, you can attend the applicable special meeting and vote in person, but your attendance alone will not revoke any proxy that you have previously given.

If you choose either of the first two methods, your notice of revocation or your new proxy must be received by your company's corporate secretary at the address provided under *The Companies* beginning on page 7 no later than the beginning of the applicable special meeting. If you are a Hologic stockholder, you can find further details on how to revoke your proxy in *The Hologic Special Meeting Revocation of Proxies* beginning on page 139. If you are a Cytyc stockholder, you can find further details on how to revoke your proxy in *The Cytyc Special Meeting Revocation of Proxies* beginning on page 142.

If you hold your shares in street name, please refer to your proxy card or the information forwarded by your bank, broker or other holder of record to see which options are available to you.

Q: Can I dissent and require appraisal of my shares?

A: *Hologic stockholders.* Under Delaware law, Hologic stockholders have no right to an appraisal of the fair value of their shares in connection with the merger.

Cytyc stockholders. Under Delaware law, instead of receiving the merger consideration, Cytyc stockholders are entitled to demand to have the fair value of their shares at the effective time of the merger judicially determined and paid to them in cash. A stockholder who desires to exercise appraisal rights must (i) not vote in favor of the merger, (ii) deliver a written demand for appraisal of his or her shares to the corporate secretary of Cytyc before the vote on the merger at the Cytyc special meeting and (iii) otherwise comply with the provisions of Delaware law. You should carefully read and follow the instructions under *The Merger Appraisal Rights* beginning on page 107 if you wish to exercise your appraisal rights.

Q: *What do I do now?*

A: Carefully read and consider the information contained in and incorporated by reference into this joint proxy statement/prospectus, including its annexes.

In order for your shares to be represented at your special stockholders meeting:

you can vote by telephone or through the Internet by following the instructions included on your proxy card;

you can indicate on the enclosed proxy card how you would like to vote and sign and return the proxy card in the accompanying pre-addressed postage paid envelope; or

you can attend your special meeting and vote in person.

If you hold your shares in street name, please refer to your proxy card or the information forwarded by your bank, broker or other holder of record to see which options are available to you.

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Q: Should stockholders send in their stock certificates with their proxies?

A: No. Cytyc stockholders should not send in their stock certificates at this time. If the merger is completed, Hologic's exchange agent will send former Cytyc stockholders a letter of transmittal and written instructions explaining what they must do to exchange their Cytyc stock certificates or transfer uncertificated shares for the merger consideration payable to them.

Hologic stockholders will retain their current stock certificates after the merger and should not send in their stock certificates.

Q: When do you expect to complete the merger?

A: Hologic and Cytyc are working to complete the merger as quickly as practicable. However, Hologic and Cytyc cannot assure you when or if the merger will be completed. Completion of the merger is subject to satisfaction or waiver of the conditions specified in the merger agreement, including receipt of the necessary approvals of each of Hologic's and Cytyc's stockholders at their respective special meetings and any necessary regulatory approvals. It is possible that factors outside the control of both companies could result in the merger being completed later than expected. Although the exact timing of completion of the merger cannot be predicted with certainty, Hologic and Cytyc anticipate completing the merger in mid-October 2007. See "The Merger Agreement - Conditions to Completion of the Merger" beginning on page 129.

Q: Whom should I call with questions?

A: *Hologic Stockholders.* If you have additional questions about the merger or the other matters to be voted on at the Hologic special meeting or if you desire additional copies of this joint proxy statement/prospectus or you need assistance voting your shares, you should contact:

105 Madison Avenue

New York, NY 10016

(212) 929-5500 (Call Collect)

or

Call Toll-Free (800) 322-2885

Email: proxy@mackenziepartners.com

Cytyc Stockholders. If you have additional questions about the merger or the other matters to be voted on at the Cytyc special meeting or if you desire additional copies of this joint proxy statement/prospectus or you need assistance voting your shares, you should contact:

Morrow & Co., Inc.

470 West Avenue

Stamford, CT 06902

(203) 658-9400

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Banks and Brokerage Firms, Please Call: (203) 658-9400

Stockholders Call Toll-Free: (800) 607-0088

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SUMMARY

*This summary highlights information contained elsewhere in this joint proxy statement/prospectus. It does not contain all of the information that may be important to you. You are urged to read carefully this entire joint proxy statement/prospectus, including the attached annexes, and the other documents to which this joint proxy statement/prospectus refers you in order for you to fully understand the proposed merger. See *Where You Can Find More Information* beginning on page 197. Each item in this summary refers to the page of this joint proxy statement/prospectus on which that subject is discussed in more detail.*

The Companies

Hologic, Inc. (see page 115)

Hologic, Inc.

35 Crosby Drive

Bedford, MA 01730

(781) 999-7300

<http://www.hologic.com>¹

Hologic is a leading developer, manufacturer and supplier of diagnostic and medical imaging systems primarily dedicated to serving the healthcare needs of women. Hologic focuses its resources on developing systems and subsystems offering superior image quality and diagnostic accuracy, which has enabled it to capture significant market share and customer loyalty, despite the presence of large competitors.

Hologic's core women's healthcare business units are focused on mammography and breast care, and osteoporosis assessment. Its mammography and breast care products include a broad product line of breast imaging and related products, including film-based and digital mammography systems, computer-aided detection (CAD), breast biopsy systems and breast biopsy and tissue extraction devices. Hologic's Lorad line of mammography systems and its bone densitometry product line are premier brands in their markets. Hologic's newly acquired CAD product lines from R2 Technology, Inc. and breast biopsy devices and tissue extraction product lines from Suros Surgical Systems, Inc. also hold positions of industry prominence in their areas of application. Hologic's osteoporosis assessment products primarily consist of dual-energy X-ray bone densitometry systems and an ultrasound-based osteoporosis assessment product. Hologic's other business unit includes: Fluoroscans mini C-arm imaging products, Esaote line of extremity MRI (Magnetic Resonance Imaging) systems which are manufactured by an original equipment manufacturer and photoconductor coating business, which Hologic acquired in connection with its acquisition of AEG Electrofotografie GmbH and its group of related companies. Hologic's customers include hospitals, imaging clinics and private practices, many of the leading healthcare organizations in the world and major pharmaceutical companies utilizing Hologic's products in conducting clinical trials.

¹ The information contained on Hologic's website is expressly not incorporated by reference into this joint proxy statement/prospectus.

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Nor easter Corp. (see page 115)

Nor easter Corp.

35 Crosby Drive

Bedford, MA 01730

(781) 999-7300

Nor easter Corp. is a wholly owned subsidiary of Hologic that was incorporated in Delaware in May 2007. Nor easter does not engage in any operations and exists solely to facilitate the merger.

Cytc Corporation (see page 116)

Cytc Corporation

250 Campus Drive

Marlborough, MA 01752

(508) 263-2900

<http://www.cytc.com>²

Cytc is a diversified diagnostic and medical device company that designs, develops, manufactures, and markets innovative and clinically effective diagnostic and surgical products. Cytc's products cover a range of cancer and women's health applications, including cervical cancer screening, pre-term birth risk assessment treatment of excessive menstrual bleeding, radiation treatment of early-stage breast cancer, and radiation treatment of patients with malignant brain tumors.

Cytc operates its business in three reportable segments: domestic diagnostic products, domestic surgical products and international. Cytc's domestic diagnostic products segment develops and markets the ThinPrep® System in the United States primarily for use in cytology testing applications, such as cervical cancer screening, and FullTerm®, The Fetal Fibronectin Test, acquired as part of Cytc's purchase of Adeza Biomedical Corporation, which offers clinical and cost benefits for the assessment of the risk of pre-term birth. Cytc's domestic surgical products segment develops and markets the NovaSure® System, an innovative endometrial ablation device to treat menorrhagia, or excessive menstrual bleeding, the MammoSite® Radiation Therapy System, a device for the treatment of early-stage breast cancer that positions radiation sources directly into the post-lumpectomy site to optimize radiation treatment delivery while minimizing damage to healthy tissue, and the GliaSite® Radiation Therapy System for the treatment of malignant brain tumors. The domestic surgical segment, as part of Cytc's purchase of Adiana Inc., acquired the Adiana Complete Transcervical Sterilization System®, TCS, which is a form of permanent female contraception intended as an alternative to tubal ligation and for which Cytc is in the process of seeking a pre-market approval from the U.S. Food and Drug Administration. The domestic surgical products segment markets these products in the United States. Cytc's international segment markets its diagnostic and surgical products outside of the United States.

² The information contained on Cytc's website is expressly not incorporated by reference into this joint proxy statement/prospectus.

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The Merger

The Agreement and Plan of Merger, dated as of May 20, 2007, among Hologic, Cytyc and Norwester Corp., which is referred to as the merger agreement, is attached as Annex A to this joint proxy statement/prospectus. Cytyc and Hologic encourage you to read carefully the merger agreement in its entirety because it is the principal legal agreement that governs the merger.

Structure of the Merger (see page 117)

Subject to the terms and conditions of the merger agreement, at the effective time of the merger, Cytyc will merge with and into Norwester Corp., a wholly owned subsidiary of Hologic that was formed for the purpose of the merger, with Norwester Corp. surviving the merger as a direct, wholly owned subsidiary of Hologic. At the effective time of the merger, Norwester Corp. will be renamed Cytyc Corporation.

Merger Consideration (see page 117)

Cytyc stockholders. As a result of the merger, Cytyc stockholders will be entitled to receive, for each issued and outstanding share of Cytyc common stock that they own immediately prior to the effective time of the merger, 0.52 of a share, referred to as the exchange ratio, of Hologic common stock, referred to as the stock merger consideration, and \$16.50 in cash without interest, referred to as the cash merger consideration. The combined company will not issue any fractional shares of Hologic common stock in the merger. Instead, Cytyc stockholders will receive cash in lieu of any fractional shares of Hologic common stock that they would have otherwise received in the merger. The amount of cash for fractional shares will be calculated by multiplying the fraction of a share of Hologic common stock to which the Cytyc stockholder would be entitled to receive in the merger by the closing sale price of a share of Hologic common stock on the closing date of the merger. The stock merger consideration, together with the cash merger consideration and any cash received in lieu of fractional shares, is referred to as the merger consideration.

Hologic stockholders. Hologic stockholders will continue to own their existing shares of Hologic common stock after the merger. Hologic stockholders should not send in their stock certificates in connection with the merger.

Ownership of the Combined Company After the Merger

Hologic will issue approximately 65.1 million shares of Hologic common stock to Cytyc stockholders in the merger based on the number of shares of Cytyc common stock outstanding on June 30, 2007, assuming conversion of all of Cytyc's outstanding 2.25% Senior Convertible Notes due 2024. At the completion of the merger, it is expected that there will be outstanding approximately 119.1 million shares of common stock of the combined company. The shares of Hologic common stock issued to former Cytyc stockholders in the merger will represent approximately 55% of the outstanding common stock of the combined company immediately after the merger. Shares of Hologic common stock held by current Hologic stockholders will represent approximately 45% of the outstanding common stock of the combined company immediately after the merger.

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Recommendations to Stockholders

Recommendations to Hologic stockholders. The Hologic board of directors has unanimously determined that the merger agreement and the merger and other transactions contemplated therein, including an amendment to the Hologic charter and the issuance of Hologic common stock in the merger are advisable to and in the best interests of Hologic and its stockholders. The Hologic board of directors recommends that Hologic stockholders vote:

FOR an amendment to the Hologic charter to increase the authorized number of shares of Hologic common stock from 90,000,000 to 300,000,000 shares;

FOR the issuance of Hologic common stock to Cytyc stockholders in the merger;

FOR the approval of the Hologic, Inc. Senior Executive Short-Term Incentive Plan;

FOR the approval of the amendment to the Hologic's Second Amended and Restated 1999 Equity Incentive Plan; and

FOR the adjournment of the special meeting, including, if necessary, to solicit additional proxies in favor of any of the foregoing proposals.

For additional information see The Hologic Special Meeting Board Recommendations beginning on page 135.

Recommendations to Cytyc stockholders. The Cytyc board of directors has unanimously determined that the merger agreement and the transactions contemplated thereby, including the merger, are advisable and fair to and in the best interests of Cytyc and its stockholders. The Cytyc board of directors recommends that Cytyc stockholders vote:

FOR the adoption of the merger agreement and the transactions contemplated thereby, including the merger; and

FOR the adjournment of the special meeting, including, if necessary, to solicit additional proxies in favor of the foregoing proposal. For additional information see The Cytyc Special Meeting Board Recommendations beginning on page 140.

Opinions of Financial Advisors (see pages 62 and 84)

Hologic (See page 62)

Hologic's financial advisors, Goldman, Sachs & Co., which is referred to as Goldman Sachs, and Jefferies & Company, Inc., which is referred to as Jefferies, each delivered their respective opinions to the Hologic board of directors that, as of the date of the fairness opinion and based upon and subject to the assumptions, procedures, factors, limitations and qualifications set forth therein, the merger consideration to be paid for each outstanding share of Cytyc common stock, taken in the aggregate, to be paid pursuant to the merger agreement was fair, from a financial point of view, to Hologic.

The full text of the written opinion of each of Goldman Sachs and Jefferies, each dated May 20, 2007, which sets forth assumptions made, procedures followed, matters considered and qualifications and limitations on the review undertaken in connection with each of their opinions, is attached hereto as Annex C and Annex D, respectively. Goldman Sachs and Jefferies provided their opinions for the information and assistance of the Hologic board of directors in connection with its consideration of the merger. The Goldman Sachs and Jefferies

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opinions are not a recommendation as to how any holder of Hologic common stock or Cytyc common stock should vote at any stockholders meeting to be held in connection with, or take any action with respect to, the merger.

Cytyc (See page 84)

Cytyc's financial advisors, Morgan Stanley & Co. Incorporated, which is referred to as Morgan Stanley, and J.P. Morgan Securities Inc., which is referred to as JPMorgan, each delivered their respective opinions to the Cytyc board of directors to the effect that, as of the date of the fairness opinion and based upon and subject to the factors and assumptions set forth therein, the merger consideration to be received by the holders of Cytyc common stock pursuant to the merger agreement was fair from a financial point of view to such holders.

The full text of the written opinion of each of Morgan Stanley and JPMorgan, each dated May 20, 2007, which sets forth assumptions made, procedures followed, matters considered and limitations on the review undertaken in connection with each of their opinions, is attached hereto as Annex E and Annex F, respectively. Morgan Stanley and JPMorgan provided their opinions for the information and assistance of the Cytyc board of directors in connection with its consideration of the merger. The Morgan Stanley and JPMorgan opinions are not recommendations as to how any holder of Cytyc common stock or Hologic common stock should vote on, or take any action with respect to, the merger.

Treatment of Cytyc Stock Options and Other Equity Based Awards (see page 118)

Outstanding Cytyc stock options at the effective time of the merger will be converted into options to purchase Hologic common stock, with appropriate adjustments made to the number of shares and the exercise price under those options based on the value of the merger consideration. Outstanding Cytyc restricted stock units at the effective time of the merger will be converted into the right to receive, on the same terms and conditions as were applicable to the Cytyc restricted stock units, Hologic common stock, with appropriate adjustments made to the number of shares based on the value of the merger consideration. Outstanding Cytyc performance shares and accrued shares issuable to Cytyc directors will vest as of the effective time of the merger and the holders thereof will be entitled to receive the merger consideration on the same basis as all other shares of Cytyc common stock. Outstanding deferred shares granted under Cytyc's amended and restated director compensation plan will, at the effective time of the merger, be converted into shares of Hologic common stock based on the value of the merger consideration.

Interests of Hologic's and Cytyc's Executive Officers and Directors in the Merger (see pages 75 and 95)

When you consider the Hologic and Cytyc board of directors' respective recommendations that stockholders vote in favor of the proposals described in this joint proxy statement/prospectus, you should be aware that (i) some Cytyc executive officers and directors may have interests that may be different from, or in addition to, Cytyc stockholders' interests, including but not limited to, their receipt of change of control payments under existing Cytyc change of control agreements in connection with the merger, entry into new change of control agreements and retention and severance agreements with Hologic, new employment arrangements with Hologic, accelerated vesting of Cytyc stock options and other equity awards at the effective time of the merger, and the right of Cytyc's executive officers and directors to continued indemnification and insurance coverage for acts or omissions occurring before the merger; and (ii) some Hologic executive officers and directors may have interests that may be different from, or in addition to, Hologic stockholders' interests, including but not limited to, accelerated vesting of stock options and other equity awards upon completion of the merger, payments under change of control agreements in connection with the merger, and a new retention and severance agreement for one executive officer.

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Appraisal Rights (see page 107)

Under the General Corporation Law of the State of Delaware, referred to as the DGCL, instead of receiving the merger consideration, Cytyc stockholders are entitled to demand to have the fair value of their shares at the effective time of the merger judicially determined and paid to them in cash. A stockholder who desires to exercise appraisal rights must (i) not vote in favor of the merger, (ii) deliver a written demand for appraisal of his or her shares to the corporate secretary of Cytyc before the vote on the merger at the Cytyc special meeting and (iii) otherwise comply with the provisions of the DGCL. You should carefully read and follow the instructions under The Merger Appraisal Rights commencing on page 107 if you wish to exercise your appraisal rights.

Under the DGCL, Hologic stockholders have no right to an appraisal of the fair value of their shares in connection with the merger.

Material United States Federal Income Tax Consequences of the Merger (see page 111)

Hologic and Cytyc intend for the merger to qualify as a reorganization within the meaning of Section 368(a) of the Code. If you are a Cytyc stockholder, you generally will recognize income or gain for U.S. federal income tax purposes equal to the lesser of (i) the amount of cash (excluding cash that you receive in lieu of fractional shares of Hologic common stock) that you receive and (ii) the amount of gain that you realize, which generally is equal to the sum of (a) the amount of cash that you receive plus (b) the fair market value of any Hologic common stock that you receive, over your tax basis in the shares of Cytyc common stock that you surrender pursuant to the merger. Your income or gain may vary if you acquired your Cytyc common stock in more than one transaction. In addition, if you receive cash in lieu of a fractional share of Hologic common stock, you will recognize gain or loss based on the difference between the cash you receive for such fractional share and your tax basis allocable to the fractional share.

You should read Material United States Federal Income Tax Consequences of the Merger beginning on page 111 for a more complete discussion of the U.S. federal income tax consequences of the merger.

If you are a Hologic stockholder, you will simply retain your shares of Hologic common stock, and the merger therefore will not be taxable to you.

Tax matters can be complicated and the tax consequences of the merger to you will depend on your particular tax situation. We recommend that you consult your tax advisor to determine the tax consequences of the merger to you.

Accounting Treatment (see page 105)

Hologic prepares its financial statements in accordance with U.S. GAAP. The merger will be accounted for using the purchase method of accounting. As discussed under The Merger Accounting Treatment on page 105, based on the facts that Hologic board members and senior management will control and represent a majority of the board of directors and senior management of the combined company, as well as the terms of the exchange, pursuant to which Cytyc stockholders will receive a premium of approximately 32.5% (as of the date preceding the merger announcement) over the fair market value of their shares on such date and cash of \$16.50 per share (or approximately 36.0% of the merger consideration), Hologic is considered to be the acquirer of Cytyc for accounting purposes. This means that Hologic will allocate the purchase price to the fair value of Cytyc's assets and liabilities at the effective time of the merger, with the excess purchase price being recorded as goodwill. Under the purchase method of accounting, goodwill is not amortized but is tested for impairment at least annually.

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Regulatory Approvals (see page 114)

Hologic and Cytac have each agreed to use their reasonable best efforts in order to obtain all regulatory approvals required in order to complete the merger. These approvals include approvals by the U.S. Federal Trade Commission, the U.S. Department of Justice and state antitrust authorities. Hologic and Cytac each submitted their antitrust filings with the U.S. Department of Justice and the U.S. Federal Trade Commission on June 1, 2007, which commenced the initial waiting period of 30 days. On July 2, 2007, the waiting period under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, referred to as the HSR Act, expired without a request for additional information. Based on the review and analyses performed, Hologic and Cytac do not believe that any other antitrust related filings are required in any foreign jurisdictions.

Listing of Hologic Common Stock (see page 128)

Hologic has agreed to use its commercially reasonable efforts to cause the shares of Hologic common stock to be issued in the merger to be approved for listing on the Nasdaq Global Select Market.

Conditions to Completion of the Merger (see page 129)

The obligations of each of Hologic and Cytac to complete the merger are subject to the satisfaction at or before the effective time of the merger of a number of mutual conditions, including the following:

adoption of the merger agreement and the transactions contemplated thereby, including the merger, by Cytac stockholders;

approval of the amendment to the Hologic charter to increase the number of authorized shares of common stock and the issuance of the Hologic common stock in the merger, by Hologic stockholders;

absence of any applicable law, rule, order, injunction or judgment prohibiting or preventing the completion of the merger;

the applicable waiting period under the HSR Act or under any similar foreign statutes or regulations applicable to the merger shall have expired or terminated or, where applicable, approval shall have been obtained, except where the failure of which to expire, terminate or be obtained would not reasonably be expected to materially and adversely affect Cytac or Hologic, taken as a whole, or would not reasonably be expected to result in criminal liability;

Hologic's registration statement on Form S-4, which includes this joint proxy statement/prospectus, being effective and not subject to any SEC stop order;

approval for the listing on the Nasdaq Global Select Market of the shares of Hologic common stock to be issued in the merger subject to official notice of issuance;

receipt of all required approvals of any governmental body, agency, official or authority, except those that would not reasonably be expected to (i) materially and adversely diminish the benefits expected to be derived by the parties on the date of the merger agreement from the combination of Hologic and Cytac (the combined business to be taken as a whole); or (ii) otherwise have a regulatory material adverse effect as described in the merger agreement; and

absence of any applicable law, rule, order, injunction or judgment enacted or deemed applicable to the merger that would reasonably be expected to (i) materially and adversely diminish the benefits expected to be derived by the parties on the date of the merger agreement from the combination of Hologic and Cytac (the combined business to be taken as a whole); or (ii) otherwise have a

regulatory material adverse effect as described in the merger agreement.

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In addition, the obligations of each of Hologic and Cytyc to complete the merger are subject to the satisfaction or waiver at or before the effective time of the merger of the following additional conditions:

the other party shall have performed in all material respects all of its obligations required to be performed by it at or prior to the effective time;

the representations and warranties of the other party shall be accurate, to the extent specified in the merger agreement;

no material adverse effect, as defined in the merger agreement, shall have occurred and be continuing with respect to the other party since May 20, 2007; and

receipt of opinions of counsel to that party that the merger will qualify as a reorganization within the meaning of Section 368(a) of the Code, and that Hologic, Cytyc and Nor eastern Corp. will qualify as parties to a reorganization within the meaning of Section 368(b) of the Code.

The obligations of Hologic to complete the merger are further conditioned on the requirement that holders of no greater than 10% of the issued and outstanding common stock of Cytyc shall have demanded appraisal for such shares in accordance with the DGCL.

Termination of the Merger Agreement (see page 130)

Hologic and Cytyc can mutually agree to terminate the merger agreement at any time. Either company may also terminate the merger agreement, under specified circumstances, if the merger is not completed by November 16, 2007, or under other circumstances described in this joint proxy statement/prospectus.

Expenses and Termination Fees (see page 132)

Generally, all fees and expenses incurred in connection with the merger agreement and the transactions contemplated by the merger agreement will be paid by the party incurring those expenses, subject to the specific exceptions discussed in this joint proxy statement/prospectus. The merger agreement provides that, upon termination of the merger agreement under specified circumstances described elsewhere in this joint proxy statement/prospectus, Cytyc may be required to pay Hologic a termination fee of \$50 million (referred to as a Hologic reduced fee) or \$150 million (referred to as a Hologic rejection fee) or Hologic may be required to pay Cytyc a termination fee of \$33 million (referred to as a Cytyc reduced fee) or \$100 million (referred to as a Cytyc rejection fee), in each case, depending on the termination event.

Headquarters (see page 106)

The combined company's corporate headquarters will be located at 35 Crosby Drive, Bedford, Massachusetts 01730. The headquarters of the Cytyc business will continue to be located in Marlborough, Massachusetts.

Executive Officers (see page 106)

Hologic and Cytyc have agreed that at the effective time of the merger, John W. Cumming will be the chief executive officer of Hologic and Patrick J. Sullivan will be the chairman of the Hologic board of directors. In addition, at the effective time of the merger, Dr. Jay A. Stein, currently chairman emeritus, director and chief technical officer of Hologic, will serve as chairman emeritus and chief technical officer of Hologic.

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Board of Directors and Corporate Governance After the Merger (see page 105)

In connection with the merger, the parties have reached certain agreements regarding the governance of Hologic at the effective time of the merger, including the following:

Hologic Board of Directors. The board of directors of Hologic will consist of eleven directors, six of whom will be designated by Hologic and five of whom will be designated by Cytyc. Four of the six persons designated by Hologic will be independent directors as defined under applicable Nasdaq listing standards, and the remaining two persons will be John W. Cumming, current chairman and chief executive officer of Hologic, and Glenn P. Muir, current chief financial officer of Hologic. Three of the five persons designated by Cytyc will be independent directors as defined under applicable Nasdaq listing standards, and the remaining two persons will be Patrick J. Sullivan, current chairman, chief executive officer and president of Cytyc, and Daniel J. Levangie, current executive vice president of Cytyc and president of Cytyc surgical products.

Committees of the Hologic Board of Directors. The board of directors of Hologic will have audit, compensation, nominating and corporate governance, and corporate development committees. The audit, nominating and corporate governance and corporate development committees will each consist of an odd number of directors, consisting of one more continuing Hologic director than continuing Cytyc directors, and the chairman of each of these committees will be a continuing Hologic director. The compensation committee will consist of an even number of directors, consisting of an equal number of continuing Cytyc directors and continuing Hologic directors, and the chairman of the compensation committee will be a continuing Cytyc director.

Hologic Bylaws Amendment (see page 156)

In connection with approving the merger agreement, Hologic's board of directors approved amendments to Hologic's bylaws, which will become effective only upon completion of the merger. These amendments include provisions giving effect to the governance provisions described above under Board of Directors and Corporate Governance After the Merger and providing for mandatory indemnification for directors and officers to the extent permitted by Delaware law.

Special Meetings of Hologic and Cytyc Stockholders

Hologic Special Meeting (see page 135)

Meeting. The Hologic special meeting will be held on October 18, 2007, at 9:00 a.m., local time, at Hologic's principal executive offices located at 35 Crosby Drive, Bedford, Massachusetts 01730. At the Hologic special meeting, Hologic stockholders will be asked:

to approve an amendment to Hologic's charter, effective immediately prior to the effective time of the merger, to increase the authorized number of shares of Hologic common stock from 90,000,000 to 300,000,000 shares;

to approve the issuance of Hologic common stock to Cytyc stockholders in the merger;

to approve the Hologic, Inc. Senior Executive Short-Term Incentive Plan;

to approve the amendment to Hologic's Second Amended and Restated 1999 Equity Incentive Plan; and

if submitted to a vote of Hologic stockholders, to approve an adjournment of the Hologic special meeting, including, if necessary, to solicit additional proxies in favor of any of the foregoing proposals.

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Record Date; Votes. Hologic has fixed the close of business on August 22, 2007 as the record date, which is referred to as the Hologic record date, for determining the Hologic stockholders entitled to receive notice of and to vote at the Hologic special meeting. Only holders of record of Hologic common stock on the Hologic record date are entitled to receive notice of and vote at the Hologic special meeting, and any adjournment or postponement thereof.

Each share of Hologic common stock is entitled to one vote. On the Hologic record date, there were approximately 53,947,712 shares of Hologic common stock entitled to vote at the Hologic special meeting.

Required Vote. The Hologic proposals require different percentages of votes for approval:

the proposal to amend the Hologic charter requires the affirmative vote of a majority of the outstanding shares of Hologic common stock entitled to vote on the proposal;

the proposal to issue shares of Hologic common stock to Cytac stockholders in the merger, the proposal to approve the Hologic, Inc. Senior Executive Short-Term Incentive Plan, and the proposal to approve the amendment to Hologic's Second Amended and Restated Equity Incentive Plan each require the affirmative vote of a majority of the votes cast in person or by proxy at the Hologic special meeting; and

the proposal to adjourn the Hologic special meeting, including, if necessary, to solicit additional proxies if there are not sufficient votes for the foregoing proposals requires the affirmative vote of a majority of votes cast in person or by proxy, whether or not a quorum is present at the Hologic special meeting.

The proposal to amend the Hologic charter and the proposal to issue shares of Hologic common stock to Cytac stockholders in the merger are conditioned on one another and the approval of each of these proposals is a condition to the completion of the merger. Neither the amendment to the Hologic charter nor the issuance of the Hologic common stock to Cytac stockholders in the merger will take place unless both of these proposals are approved by the Hologic stockholders. Therefore, the merger cannot be completed without the approval of both proposals.

Stock Ownership of Hologic Directors and Executive Officers. On August 22, 2007, the Hologic record date, directors and executive officers of Hologic and their respective affiliates owned and were entitled to vote approximately 331,330 shares of Hologic common stock, or approximately 0.6% of the shares of Hologic common stock outstanding on that date. To Hologic's knowledge, the directors and executive officers of Hologic and their respective affiliates intend to vote their shares of Hologic common stock in favor of all Hologic proposals at the Hologic special meeting.

Cytac Special Meeting (see page 140)

Meeting. The Cytac special meeting will be held on October 18, 2007, at 9:00 a.m., local time, at The Hilton Boston Logan Airport, One Hotel Drive, Boston, Massachusetts 02128. At the Cytac special meeting, Cytac stockholders will be asked:

to adopt the merger agreement and the transactions contemplated thereby, including the merger, pursuant to which Cytac will become a wholly owned subsidiary of Hologic; and

if submitted to a vote of Cytac stockholders, to approve an adjournment of the Cytac special meeting, including, if necessary, to solicit additional proxies in favor of the adoption of the merger agreement if there are not sufficient votes for such proposal.

Record Date; Votes. Cytac has fixed the close of business on August 22, 2007 as the record date, which is referred to as the Cytac record date, for determining the Cytac stockholders entitled to receive notice of and to vote at the Cytac special meeting. Only holders of record of Cytac common stock on the Cytac record date are entitled to receive notice of and vote at the Cytac special meeting, and any adjournment or postponement thereof.

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Each share of Cytyc common stock is entitled to one vote. On the Cytyc record date, there were 117,627,349 shares of Cytyc common stock entitled to vote at the Cytyc special meeting.

Required Vote. The proposals require different percentages of votes in order to approve them:

the proposal for the adoption of the merger agreement and the transactions contemplated thereby, including the merger, requires the affirmative vote of a majority of the outstanding shares of Cytyc common stock entitled to vote at the Cytyc special meeting; and

the proposal to adjourn the Cytyc special meeting, including, if necessary, to solicit additional proxies in favor of the proposal to adopt the merger agreement, requires the affirmative vote of a majority of the votes cast by stockholders present in person or represented by proxy, whether or not a quorum is present, at the Cytyc special meeting.

Adoption of the merger agreement and the transactions contemplated thereby, including the merger, by Cytyc stockholders is a condition to the completion of the merger.

Stock Ownership of Directors and Executive Officers. On August 22, 2007, the Cytyc record date, directors and executive officers of Cytyc and their respective affiliates owned and were entitled to vote 446,436 shares of Cytyc common stock, or approximately 0.38% of the shares of Cytyc common stock outstanding on that date. To Cytyc's knowledge, the directors and executive officers of Cytyc and their respective affiliates intend to vote their shares of Cytyc common stock in favor of all Cytyc proposals at the Cytyc special meeting.

Table of Contents**Selected Historical Consolidated Financial Data of Hologic**

The following tables set forth the selected historical consolidated financial and operating data for Hologic. The selected consolidated statement of income data for the fiscal years ended September 30, 2006, September 24, 2005 and September 25, 2004, and the selected balance sheet data as of September 30, 2006 and September 24, 2005 are derived from Hologic's audited consolidated financial statements incorporated by reference into this joint proxy statement/prospectus. The selected consolidated statement of income data for the fiscal years ended September 27, 2003 and September 28, 2002, and the selected balance sheet data as of September 25, 2004, September 27, 2003 and September 28, 2002 are derived from Hologic's audited consolidated financial statements not included or incorporated by reference into this joint proxy statement/prospectus. The selected consolidated statement of income data for the nine months ended June 30, 2007 and June 24, 2006, and the selected balance sheet data as of June 30, 2007 have been derived from Hologic's unaudited consolidated condensed financial statements incorporated by reference into this joint proxy statement/prospectus. The interim consolidated financial data, in the opinion of Hologic management, reflect all adjustments of a normal recurring nature necessary for a fair statement of Hologic's financial position and results of operations at the dates and for the periods indicated. The results for the nine months ended June 30, 2007 are not necessarily indicative of results that may be expected for any other interim period or the entire fiscal year.

Hologic's historical financial data may not be indicative of the results of operations or financial position to be expected in the future.

You should read this selected historical consolidated financial data of Hologic in conjunction with Hologic's consolidated financial statements and the related notes to those financial statements and the Management's Discussion and Analysis of Financial Condition and Results of Operations section included in Hologic's Annual Report on Form 10-K for the fiscal year ended September 30, 2006 and Hologic's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2007, which have been filed with the SEC and are incorporated by reference into this joint proxy statement/prospectus.

	Nine Months Ended		Fiscal Years Ended				
	June 30, 2007	June 24, 2006	September 30, 2006	September 24, 2005	September 25, 2004	September 27, 2003	September 28, 2002
(In thousands, except per share data)							
Consolidated Statement of Income Data							
Revenues:							
Product sales	\$ 457,337	\$ 257,604	\$ 388,111	\$ 229,075	\$ 177,936	\$ 156,734	\$ 144,684
Service and other revenue	78,467	51,021	74,569	58,609	50,769	47,301	45,508
	535,804	308,625	462,680	287,684	228,705	204,035	190,192
Costs and Expenses:							
Cost of product sales	193,526	124,642	186,862	116,478	94,762	86,506	84,230
Cost of product sales - amortization of intangible assets	8,335	2,113	4,784	911	911	911	911
Cost of service and other revenue	85,925	53,491	77,502	58,181	48,574	43,949	34,146
Research and development	33,221	18,288	28,294	18,617	16,659	18,381	20,362
Selling and marketing	61,660	34,838	55,910	34,199	31,761	29,978	28,319
General and administrative	47,738	27,156	42,551	26,667	23,452	21,285	17,997
Amortization of acquired intangible assets	4,145	518	1,631				
Net gain on sale of intellectual property			(5,093)				
Acquired research and development		4,800	19,900				
Restructuring and relocation							2,070
	434,550	265,846	412,341	255,053	216,119	201,010	188,035

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	Nine Months Ended		Fiscal Years Ended				
	June 30, 2007	June 24, 2006	September 30, 2006	September 24, 2005	September 25, 2004	September 27, 2003	September 28, 2002
	(In thousands, except per share data)						
Income from operations	101,254	42,779	50,339	32,631	12,586	3,025	2,157
Interest income	1,630	3,454	4,082	2,219	540	685	573
Interest/other expense	(2,126)	(536)	(1,198)	(155)	(199)	(445)	(2,980)
Income (loss) before provision (benefit) for income taxes and cumulative effect of change in accounting principle	100,758	45,697	53,223	34,695	12,927	3,265	(250)
Provision (benefit) for income taxes	38,290	16,800	25,800	6,439	763	176	(429)
Income before cumulative effect of change in accounting principle	62,468	28,897	27,423	28,256	12,164	3,089	179
Cumulative effect of change in accounting principle						(207)	
Net income	\$ 62,468	\$ 28,897	\$ 27,423	\$ 28,256	\$ 12,164	\$ 2,882	\$ 179

	Nine Months Ended		Fiscal Years Ended				
	June 30, 2007	June 24, 2006	September 30, 2006	September 24, 2005	September 25, 2004	September 27, 2003	September 28, 2002
	(In thousands, except per share data)						
Basic income per common and common equivalent share (1):							
Income before cumulative effect of change in accounting principle	\$ 1.17	\$ 0.64	\$ 0.59	\$ 0.66	\$ 0.30	\$ 0.08	\$ 0.00
Cumulative effect of change in accounting principle						(0.01)	
Net income	\$ 1.17	\$ 0.64	\$ 0.59	\$ 0.66	\$ 0.30	\$ 0.07	\$ 0.00
Diluted income per common and common equivalent share (1):							
Income before cumulative effect of change in accounting principle	\$ 1.14	\$ 0.61	\$ 0.56	\$ 0.63	\$ 0.29	\$ 0.08	\$ 0.00
Cumulative effect of change in accounting principle						(0.01)	
Net income	\$ 1.14	\$ 0.61	\$ 0.56	\$ 0.63	\$ 0.29	\$ 0.07	\$ 0.00
Weighted average number of common shares outstanding (1):							
Basic	53,246	45,039	46,512	42,824	40,516	39,258	36,837
Diluted	54,722	47,221	48,620	45,126	42,593	40,261	38,383

Consolidated Balance Sheet Data (at period end)

Working capital	\$ 184,883	\$ 115,743	\$ 172,615	\$ 118,238	\$ 102,699	\$ 97,738
Total assets	933,909	856,205	279,839	211,751	188,603	184,147
Line of credit		55,000				
Long-term debt	7,064	6,163		472	1,550	2,268
Total stockholders' equity	700,060	605,750	217,834	166,275	148,927	142,409

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(1) All share and per share data have been retroactively restated to reflect the 2-for-1 stock split effected on November 30, 2005.

Table of Contents**Selected Historical Consolidated Financial Data of Cytyc**

The following tables set forth the selected historical consolidated financial and operating data for Cytyc. The selected consolidated statement of income data for the fiscal years ended December 31, 2006, 2005 and 2004, and the selected balance sheet data as of December 31, 2006 and 2005 are derived from Cytyc's audited consolidated financial statements included in this joint proxy statement/prospectus under Annex B. The selected consolidated statement of income data for the fiscal years ended December 31, 2003 and 2002, and the selected balance sheet data as of December 31, 2004, 2003 and 2002 are derived from Cytyc's selected financial data from its annual report on Form 10-K/A (Amendment No. 2) not included in this joint proxy statement/prospectus. The selected consolidated statement of (loss) income data for the six months ended June 30, 2007 and 2006, and the selected balance sheet data as of June 30, 2007 have been derived from Cytyc's unaudited consolidated condensed financial statements included in this joint proxy statement/prospectus under Annex B. Cytyc's unaudited condensed consolidated financial data, in the opinion of Cytyc management, reflect all adjustments of a normal recurring nature necessary for a fair statement of Cytyc's financial position and results of operations at the dates and for the periods indicated. The results for the six months ended June 30, 2007 are not necessarily indicative of results that may be expected for any other interim period or the entire fiscal year.

Subsequent to the filing of its annual report on Form 10-K for fiscal year ended December 31, 2006, Cytyc restated its consolidated financial statements as a result of certain stock option exercise activities. See Note 15 in the notes to Cytyc's audited consolidated financial statements included in Annex B of this joint proxy statement/prospectus for additional information on the restatement.

Cytyc's historical financial data may not be indicative of the results of operations or financial position to be expected in the future.

You should read this selected historical consolidated financial data of Cytyc in conjunction with Cytyc's consolidated financial statements and the related notes to those financial statements and the Management's Discussion and Analysis of Financial Condition and Results of Operations section included in this joint proxy statement/prospectus under Annex B.

	Six Months Ended				Years Ended December 31,				
	June 30, 2007	June 30, 2006	2006	2005	2004	2003	2002	2002	
	(As Previously Reported)							(As Restatement Adjustments)	(As Restated)
	(In thousands, except per share amounts)								
Statement of (Loss) Income Data:									
Net Sales	\$ 357,721	\$ 290,937	\$ 608,250	\$ 508,251	\$ 393,593	\$ 303,060	\$ 236,493	\$	\$ 236,493
Cost of Sales ⁽¹⁾	90,379	62,852	134,184	107,149	82,523	57,420	48,622		48,622
Gross profit	267,342	228,085	474,066	401,102	311,070	245,640	187,871		187,871
Operating Expenses:									
Research and development ⁽¹⁾	21,063	20,992	44,134	32,330	20,820	14,724	14,524		14,524
Sales and marketing ⁽¹⁾	89,352	82,122	161,925	131,346	102,011	79,547	69,971		69,971
General and administrative ⁽¹⁾	46,490	28,834	63,452	45,298	35,274	28,008	23,125	(17,205)	5,920
Restructuring ⁽²⁾			2,885						
Arbitration decision ⁽³⁾				7,807					
In-process research and development ⁽⁴⁾	89,500				19,100				
Expenses related to terminated merger ⁽⁵⁾							5,705		5,705
Total operating expenses	246,405	131,948	272,396	216,781	177,205	122,279	113,325	(17,205)	96,120

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	Six Months Ended		Years Ended December 31,						
	June 30,		2006	2005	2004	2003	2002		
	2007	2006					(As	Previously (Restatement	(As
							Reported)	Adjustments)	Restated)
(In thousands, except per share amounts)									
Income from operations	20,937	96,137	201,670	184,321	133,865	123,361	74,546	17,205	91,751
Other income (expense), net ⁽⁶⁾	(2,056)	(5)	13,002	(5,603)	(3,468)	2,622	2,711		2,711
Income before provision for income taxes	18,881	96,132	214,672	178,718	130,397	125,983	77,257	17,205	94,462
Provision for income taxes	36,550	35,088	75,135	65,232	56,809	49,763	29,363	3,699	33,062
Net (loss) income	\$ (17,669)	61,044	\$ 139,537	\$ 113,486	\$ 73,588	\$ 76,220	\$ 47,894	\$ 13,506	\$ 61,400
Net (loss) income per common and potential common share:									
Basic	\$ (0.15)	\$ 0.53	\$ 1.22	\$ 1.00	\$ 0.66	\$ 0.69	\$ 0.40	\$ 0.11	\$ 0.51
Diluted	\$ (0.15)	\$ 0.51	\$ 1.16	\$ 0.94	\$ 0.63	\$ 0.68	\$ 0.39	\$ 0.11	\$ 0.50
Weighted average common and potential common shares outstanding:									
Basic	115,197	114,917	114,009	113,528	111,148	110,983	120,114		120,114
Diluted	115,197	125,014	123,759	125,446	121,922	112,807	122,782		122,782
Balance Sheet Data:									
Cash, cash equivalents and investment securities	\$ 33,323		\$ 297,710	\$ 220,619	\$ 232,295	\$ 177,897	\$ 163,744	\$	\$ 163,744
Total assets ⁽⁷⁾	1,302,818		1,164,714	1,039,879	809,350	390,900	361,626	1,563	363,189
Long-term debt	250,000		250,000	250,000	250,000				
Total stockholders' equity ⁽⁷⁾	791,339		758,973	628,351	487,445	353,631	324,728	1,563	326,291

- (1) During the six months ended June 30, 2007 and in fiscal year 2006, Cytac incurred stock-based compensation expense under SFAS No. 123R (see Note 8 in the notes to the Cytac interim condensed consolidated financial statements (unaudited) and Note 9 in the notes to the Cytac consolidated financial statements included in Annex B of this joint proxy statement/prospectus starting on page B-F-2).
- (2) Cytac incurred a charge during the fourth quarter of 2006 for severance resulting from its planned transition of its Mountain View, California operations to its operations in Costa Rica and Massachusetts.
- (3) Cytac incurred a charge in connection with the DEKA Products Limited Partnership arbitration panel decision in the first quarter of 2005.
- (4) During the six months ended June 30, 2007, Cytac incurred in-process research and development charges totaling approximately \$43.5 million and \$46.0 million related to its acquisition of Adeza Biomedical Corporation and Adiana Inc., respectively, and in fiscal year 2004, approximately \$19.1 million related to its acquisition of Novacept.
- (5) Cytac incurred charges totaling approximately \$5.7 million in 2002 related to its terminated merger with Digene Corporation.
- (6) Other income (expense), net includes a gain on sale of Vision Systems Limited shares of \$13.1 million in 2006, including a realized foreign currency gain of \$1.9 million related to this transaction.

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- (7) See Note 15 in the notes to the Cytyc consolidated financial statements included in Annex B of this joint proxy statement/prospectus starting on page B-F-2 for an explanation of the restatement of Cytyc's consolidated financial statements as a result of certain stock option exercise activities. This restatement affected the statement of income in 2002 presented above, as well as certain balance sheet data (i.e., additional paid-in capital and retained earnings, with no change to total stockholders' equity, as of December 31, 2006, 2005, 2004 and 2003 and deferred tax assets and total stockholders' equity as of December 31, 2002) also presented above, primarily to reflect the impact of the restatement on the statements of (loss) income in the years ended December 31, 1996 through 2001, which are not presented above.
- (8) Cytyc has not issued dividends in any period presented.

Table of Contents**Summary Unaudited Pro Forma Financial Data**

The following unaudited pro forma statements of operations data for the fiscal year ended September 30, 2006 and the nine months ended June 30, 2007 reflect the merger as if it had occurred on September 25, 2005. The following unaudited pro forma balance sheet data at June 30, 2007 reflect the merger as if it had occurred on that date. Such pro forma financial data is based on the historical financial statements of Hologic and Cytyc and gives effect to the merger under the purchase method of accounting for business combinations. As a result, the pro forma financial information is based on certain assumptions and adjustments as discussed in the section titled "Unaudited Pro Forma Condensed Combined Financial Information", including assumptions relating to the consideration paid and the allocation thereof for the assets and liabilities of Cytyc based on preliminary estimates of their fair value. The following should be read in connection with the sections titled "Unaudited Pro Forma Condensed Combined Financial Information", and other information included in or incorporated by reference into this joint proxy statement/prospectus. Actual financial statement information in the future may be materially different from the pro forma financial information presented below.

Statement of Operations Data	Year Ended	Nine Months Ended
	September 30, 2006 (In thousands, except per share data)	June 30, 2007
Revenue	\$ 1,184,573	\$ 1,082,133
Income from operations	\$ 124,590	\$ 161,410
Net income (loss)	\$ (22,975)	\$ 27,895
Net income (loss) per common and common equivalent share:		
Basic	\$ (0.20)	\$ 0.24
Diluted	(0.20)	0.23
Weighted average number of common shares outstanding:		
Basic	117,040	118,384
Diluted	117,040	119,860
		As of
Balance Sheet Data		June 30, 2007 (In thousands)
Working Capital		\$ 284,573
Total Assets		\$ 7,905,205
Long-term Debt		\$ 2,125,109
Stockholder's Equity		\$ 4,335,284

Table of Contents**Equivalent and Comparative Per Share Information**

We present below per common share data regarding the income (loss) and book value of Hologic and Cytyc on both historical and unaudited pro forma condensed combined bases and on a per share equivalent unaudited pro forma condensed combined basis for Cytyc. We have derived the unaudited pro forma condensed combined per share information from the unaudited pro forma condensed combined financial statements presented elsewhere in this joint proxy statement/prospectus. You should read the information below in conjunction with the financial statements and accompanying notes of Hologic that are incorporated by reference into this joint proxy statement/prospectus, with the financial statements and accompanying notes of Cytyc that are presented elsewhere in this joint proxy statement/prospectus under Annex B and with the unaudited pro forma condensed combined information included under the section entitled Unaudited Pro Forma Condensed Combined Financial Statements. Actual financial statement information in the future may be materially different from the pro forma financial information presented below.

Hologic Per Share Data:

	Fiscal Year Ended	As of and for Nine Months Ended
	September 30, 2006	June 30, 2007
Basic Net Income (Loss) per Common Share		
Historical	\$ 0.59	\$ 1.17
Pro Forma	(0.20)	0.24
Diluted Net Income (Loss) per Common Share		
Historical	\$ 0.56	\$ 1.14
Pro Forma	(0.20)	0.23
Cash Dividends		
Historical	\$	\$
Pro Forma		
Book Value per Common Share		
Historical	\$ 11.51	\$ 12.97
Pro Forma		36.41

Cytyc Per Share Data:

	Fiscal Year Ended	As of and for Six Months Ended
	December 31, 2006	June 30, 2007
Basic Net Income (Loss) per Common Share:		
Historical	\$ 1.22	\$ (0.15)
Equivalent Pro Forma	(0.10)	0.12
Diluted Net Income (Loss) per Common Share:		
Historical	\$ 1.16	\$ (0.15)
Equivalent Pro Forma	(0.10)	0.12
Cash Dividends		
Historical	\$	\$
Equivalent Pro Forma		
Book Value per Common Share		
Historical	\$ 6.62	\$ 6.79
Equivalent Pro Forma		18.93

Table of Contents**COMPARATIVE PER SHARE MARKET PRICE AND DIVIDEND INFORMATION**

Shares of Hologic common stock and shares of Cytyc common stock are both currently listed and principally traded on the Nasdaq Global Select Market. Hologic common stock is listed for trading under the symbol **HOLX** and Cytyc common stock is listed for trading under the symbol **CYTC**. The following table sets forth, for the periods indicated, the high and low sales prices per share of Hologic common stock and Cytyc common stock as reported on the Nasdaq Global Select Market and its predecessor, the Nasdaq National Market.

Hologic:

Fiscal Year Ended September 24, 2005	High	Low
First Quarter	\$ 14.50	\$ 8.89
Second Quarter	19.42	12.31
Third Quarter	20.36	14.77
Fourth Quarter	27.40	18.34
Fiscal Year Ended September 30, 2006	High	Low
First Quarter	\$ 40.01	\$ 34.52
Second Quarter	55.61	35.26
Third Quarter	56.71	35.36
Fourth Quarter	50.70	38.07
Fiscal Year Ended September 29, 2007	High	Low
First Quarter	\$ 52.34	\$ 41.94
Second Quarter	60.24	45.88
Third Quarter	63.18	50.96
Fourth Quarter (through September 11, 2007)	58.32	47.51

Cytyc:

Fiscal Year Ended December 31, 2005	High	Low
First Quarter	\$ 27.78	\$ 21.02
Second Quarter	24.50	19.83
Third Quarter	27.50	21.26
Fourth Quarter	29.60	23.76
Fiscal Year Ended December 31, 2006	High	Low
First Quarter	\$ 30.77	\$ 26.64
Second Quarter	28.34	23.80
Third Quarter	25.63	22.79
Fourth Quarter	29.17	22.88
Fiscal Year Ended December 31, 2007	High	Low
First Quarter	\$ 34.85	\$ 27.80
Second Quarter	44.62	34.02
Third Quarter (through September 11, 2007)	45.10	39.30

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The table below sets forth the closing sale prices of Hologic common stock and Cytyc common stock as reported on the Nasdaq Global Select Market, each on May 18, 2007, the last trading day prior to the public announcement of the transaction, and on September 11, 2007. The table also shows the implied value of one share of Cytyc common stock, which was calculated by multiplying the closing price of Hologic common stock on those dates by the exchange ratio of 0.52 and then adding to this amount \$16.50 per share for the cash portion of the merger consideration. The market prices of Hologic and Cytyc common stock likely will fluctuate between the date of this joint proxy statement/prospectus and the time of the special meetings and the completion of the merger. No assurance can be given concerning the market prices of Hologic common stock or Cytyc common stock before the completion of the merger or the market price of Hologic common stock after the completion of the merger. The merger consideration is fixed in the merger agreement and will not be adjusted for changes in the market value of the common stock of Hologic or Cytyc. One result of this is that the market value of the Hologic common stock that Cytyc stockholders will receive in the merger may vary significantly from the prices shown in the table below.

	Cytyc Common Stock	Hologic Common Stock	Implied Value of Cytyc Common Stock
May 18, 2007	\$ 35.05	\$ 57.61	\$ 46.46
September 11, 2007	\$ 43.66	\$ 53.74	\$ 44.44

Cytyc stockholders should obtain current market prices for shares of Hologic common stock and Cytyc common stock in deciding whether to vote for the adoption of the merger agreement and the transactions contemplated thereby, including the merger. Hologic stockholders should obtain current market prices for shares of Hologic and Cytyc common stock in deciding whether to vote for the approval of the amendment to the Hologic charter to increase the number of authorized shares of Hologic common stock and the issuance of Hologic common stock to Cytyc stockholders in the merger.

Dividends

Hologic has never declared or paid cash dividends on its capital stock and does not plan to pay any cash dividends in the foreseeable future. Hologic's current policy is to retain all of its earnings to finance future growth. In addition, Hologic's \$150 million credit facility with Bank of America N.A., as administrative agent, prohibits it from declaring or paying any cash dividends. The proposed new credit facilities expected to be obtained by Hologic in connection with the merger will also contain restrictions on the payment of dividends following the merger.

Cytyc has never declared nor paid cash dividends on its capital stock and does not expect to pay any cash dividends in the foreseeable future.

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RISK FACTORS

In addition to the other information included in or incorporated by reference into this joint proxy statement/prospectus, including the matters addressed in [Cautionary Statement Regarding Forward-Looking Statements](#) below and the additional risks relating to Cytyc included in [Annex B](#) of this joint proxy statement/prospectus under the heading [Information about Cytyc Risk Factors](#), you should carefully consider the following risk factors before deciding whether to vote for the adoption of the merger agreement and the transactions contemplated thereby, including the merger, in the case of Cytyc stockholders, or for the amendment to the Hologic charter or the issuance of shares of Hologic common stock in the merger, in the case of Hologic stockholders. If any of the risks described below, elsewhere in this joint proxy statement/prospectus or in the periodic reports incorporated by reference into this joint proxy statement/prospectus actually occurs, the respective businesses, financial results, financial condition, operating results or stock prices of Hologic, Cytyc or the combined company could be materially adversely affected. See [Where You Can Find More Information](#), beginning on page 197 and [Annex B](#), [Information about Cytyc Risk Factors](#).

RISKS RELATED TO THE MERGER

Because the market price of Hologic common stock may fluctuate, and the closing date of the merger is not yet ascertainable, Cytyc stockholders cannot be certain of the precise value of the merger consideration they will receive in the merger.

Upon completion of the merger, each share of Cytyc common stock outstanding immediately prior to the merger will be cancelled and converted into the right to receive merger consideration equal to 0.52 of a share of Hologic common stock and \$16.50 in cash. The merger consideration is fixed and will not be adjusted due to any increases or decreases in the price of Hologic common stock or Cytyc common stock. However, the value of Hologic common stock to be received by Cytyc stockholders in the merger will depend upon the market price of a share of Hologic common stock upon the completion of the merger. Therefore, if the price of Hologic common stock declines, Cytyc stockholders will receive less value for their shares upon the completion of the merger than the implied value of the merger consideration calculated on the date the merger agreement was signed or on the date of the Cytyc special meeting.

The merger may not be completed until a period of time after the Hologic special meeting and the Cytyc special meeting, during which time the market value of Hologic common stock and Cytyc common stock will likely fluctuate. Therefore, at the time of their respective special meetings, Hologic and Cytyc stockholders will not know the exact market value of Hologic common stock that will be issued in connection with the merger. The market price of a share of Hologic common stock at the time the merger is completed is likely to be different, and may be lower, than it was at the time the merger agreement was signed and at the time of the special meetings. The closing price of Hologic common stock on the Nasdaq Global Select Market on May 18, 2007 was \$57.61 per share. From May 21, 2007 through the date of this joint proxy statement/prospectus, the trading price of Hologic common stock ranged from a high of \$58.32 per share to a low of \$47.51 per share. For Hologic and Cytyc historical market prices, see [Comparative Per Share Market Price and Dividend Information](#) beginning on page 24.

Stock price changes may result from a variety of factors, including, but not limited to:

changes in the business, operations or prospects of Hologic or Cytyc;

catastrophic events, both natural and man-made;

governmental, litigation and regulatory developments or considerations;

quarterly fluctuations in either of the companies' actual or anticipated operating results;

announcements of technological innovations;

new products or product enhancements by either of the companies or their respective competitors;

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developments in patents or other intellectual property rights and litigation;

developments in relationships with either of the companies' customers and suppliers;

interest rates;

general market and economic conditions;

market assessments as to whether and when the merger will be completed and market assessments of the condition, results or prospects of either company's business; and

changes in reimbursement rates.

Stockholders of Hologic and Cytyc are urged to obtain current market prices for Hologic and Cytyc common stock when they consider whether to approve the proposals required to complete the merger at their respective special meetings.

Failure to complete the merger could negatively impact the stock prices and the future business and financial results of Hologic and Cytyc.

If the merger is not completed, the ongoing businesses of Hologic or Cytyc may be adversely affected and Hologic and Cytyc will be subject to several risks, including the following:

being required, under certain circumstances under the merger agreement, to pay a termination fee of between \$50 million and \$150 million, in the case of a payment by Cytyc to Hologic, or between \$33 million and \$100 million, in the case of a payment by Hologic to Cytyc;

having to pay significant costs relating to the merger, such as legal, accounting, financial advisor and printing fees;

the attention of management of Hologic and Cytyc will have been diverted to the merger instead of on such company's own operations and pursuit of other opportunities that could have been beneficial to such company; and

customer perception may be negatively impacted which could affect the ability of Hologic and Cytyc to compete for, or to win, new and renewal business in the marketplace.

Obtaining required approvals and satisfying closing conditions may delay or prevent completion of the merger or reduce the anticipated benefits of the merger.

Completion of the merger is conditioned upon the receipt of all material governmental authorizations, consents, orders and approvals, including the expiration or termination of the applicable waiting periods under the HSR Act. Hologic and Cytyc intend to pursue all required approvals in accordance with the merger agreement. If the companies do not receive these approvals, or do not receive them on terms that satisfy the conditions set forth in the merger agreement, then neither company will be obligated to complete the merger. On July 2, 2007, the waiting period under the HSR Act expired without a request for additional information.

The governmental agencies from which the companies will seek these approvals have broad discretion in administering the governing regulations. As a condition to approval of the merger, agencies may impose requirements, limitations or costs or require divestitures or place

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restrictions on the conduct of the combined company's business. These requirements, limitations, costs, divestitures or restrictions could jeopardize or delay the completion of the merger or may reduce the anticipated benefits of the merger. Further, no assurance can be given that the required consents and approvals will be obtained or that the required conditions to closing will be satisfied, and, if all required consents and approvals are obtained and the conditions to the completion of the merger are satisfied, no assurance can be given as to the terms, conditions and timing of the approvals.

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The combined company may be unable to successfully integrate Hologic's and Cytyc's operations or to realize the anticipated cost savings, revenues and other benefits of the merger. As a result, the value of the combined company's common stock may be adversely affected.

Hologic and Cytyc entered into the merger agreement because each company believes that the merger will be beneficial to each of Hologic, Cytyc and their respective stockholders. Currently, each company operates as an independent public company. Achieving the anticipated benefits of the merger will depend in part upon whether the two companies integrate their businesses in an efficient and effective manner. The companies may not be able to accomplish this integration process smoothly or successfully. The necessity of coordinating geographically separated organizations, systems and facilities and addressing possible differences in business backgrounds, corporate cultures and management philosophies may increase the difficulties of integration. The companies operate numerous systems, including those involving management information, purchasing, accounting and finance, sales, billing, employee benefits, payroll and regulatory compliance. The integration of certain operations following the merger will require the dedication of significant management resources, which may temporarily distract management's attention from the day-to-day business of the combined company. Employee uncertainty and lack of focus during the integration process may also disrupt the business of the combined company and result in undesired employee attrition. Any inability of management to successfully integrate the operations of the two companies could have a material adverse effect on the business and results of operations of the combined company. The companies may not be able to achieve the anticipated operating and cost synergies or long-term strategic benefits of the merger. An inability to realize the full extent of, or any of, the anticipated benefits of the merger, as well as any delays encountered in the integration process, could have an adverse effect on the business and results of operations of the combined company, which may affect the value of the shares of the combined company's common stock after the completion of the merger.

Due to legal restrictions, Cytyc and Hologic have been able to conduct only limited planning regarding the integration of the two companies following the merger and have not yet determined the exact nature of how the businesses and operations of the two companies will be combined after the merger. The actual integration may result in additional and unforeseen expenses, and the anticipated benefits of the integration plan may not be realized.

The combined company will incur significant transaction and merger-related costs in connection with the merger.

Hologic and Cytyc expect to incur significant costs associated with combining the operations of the two companies. The substantial majority of the expenses resulting from the merger will be comprised of transaction costs related to the merger, systems consolidation costs, and business integration and employment related costs. Hologic and Cytyc will also incur transaction fees and costs related to formulating integration plans. Additional unanticipated costs may be incurred in the integration of the two companies' businesses. Due to legal restrictions, Cytyc and Hologic have been able to conduct only limited planning regarding the integration of the two companies and have not yet been able to formulate detailed integration plans to deliver anticipated synergies. Although Hologic and Cytyc expect that the elimination of duplicative costs, as well as the realization of other efficiencies related to the integration of the businesses, should allow them to offset incremental transaction and merger-related costs over time, this net benefit may not be achieved in the near term, or at all.

Whether or not the merger is completed, the announcement and pendency of the merger could impact or cause disruptions in Cytyc's and Hologic's businesses, which could have an adverse effect on their results of operations and financial condition.

Specifically:

current and prospective customers and suppliers of Hologic and Cytyc may experience uncertainty associated with the merger, including with respect to current or future business relationships with Hologic, Cytyc or the combined company and may attempt to negotiate changes in existing business

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relationships or consider entering into business relationships with parties other than Hologic, Cytyc or the combined company, either before or after completion of the merger;

Cytyc and Hologic employees may experience uncertainty about their future roles with the combined company, which might adversely affect Cytyc's and Hologic's ability to retain and hire key employees;

if the merger is completed, the accelerated vesting of stock options and other equity-based awards and payment of change in control benefits to some members of Cytyc's and Hologic's management on completion of the merger could result in increased difficulty or cost in retaining Cytyc's and Hologic's officers and employees; and

the attention of management of each of Cytyc and Hologic may be directed toward the completion of the merger and transaction-related considerations and may be diverted from the day-to-day business operations of their respective companies.

Certain directors and executive officers of Hologic and Cytyc have interests that may be different from, or in addition to, interests of Hologic and Cytyc stockholders generally.

Some directors and executive officers of Hologic and Cytyc may have interests that differ from yours. For example, some directors and executive officers have employment, indemnification and severance arrangements, rights to acceleration of stock options and other equity-based awards, and other benefits they may receive on a change in control of Hologic or Cytyc, as the case may be, that provide them with interests in the merger that may be different from yours. You should be aware of these interests when you consider your board of directors' recommendation that you vote in favor of the proposals submitted at your stockholder meeting.

The deal-protection provisions of the merger agreement may deter alternative business combinations and could negatively impact the stock prices of Hologic and Cytyc if the merger agreement is terminated.

As a result of certain provisions of the merger agreement, it is possible that a third party who might be interested in pursuing a business combination proposal with Hologic or Cytyc would be discouraged from doing so. Any such proposal might be advantageous to the stockholders of Hologic and Cytyc when compared to the terms and conditions of the transaction described in this joint proxy statement/prospectus. In particular, the termination fee provision of the merger agreement may deter third parties from proposing alternative business combinations that might result in greater value to Hologic and Cytyc stockholders than the merger. In addition, in the event the merger agreement is terminated by Hologic or Cytyc in circumstances that obligate either party to pay a termination fee to the other party, Hologic's or Cytyc's stock price may decline as a result of its payment of the termination fee.

The merger is expected to have a dilutive effect on Hologic's earnings per share calculated in accordance with U.S. GAAP, which may adversely affect the market price of Hologic's common stock following the merger.

The merger is expected to have a dilutive effect on earnings per share of Hologic calculated in accordance with U.S. GAAP primarily due to the amortization of the intangible assets in connection with the merger. These expectations are based on preliminary estimates which may materially change after the completion of the merger. The combined company could also encounter additional transaction and integration-related costs or other factors such as the failure to realize all of the benefits anticipated in the merger. All of these factors could cause further dilution to the earnings per share of the combined company or cause a decrease in the price of common stock of the combined company.

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Charges to earnings resulting from the application of the purchase method of accounting may adversely affect the market value of the combined company's common stock following the merger.

In accordance with U.S. GAAP, Hologic will be considered the acquirer of Cytyc for accounting purposes. Hologic will account for the merger using the purchase method of accounting, which will result in charges to the combined company's earnings that could adversely affect the market value of Hologic's common stock following the completion of the merger. Under the purchase method of accounting, Hologic will allocate the total purchase price to the assets acquired and liabilities assumed from Cytyc based on their fair values as of the date of the effective time of the merger, and record any excess of the purchase price over those fair values as goodwill. For certain tangible and intangible assets, recording their fair values as of the completion date of the merger will result in the combined company incurring significant additional depreciation and/or amortization expense that exceed the combined amounts recorded by Hologic and Cytyc prior to the merger. This increased expense will be recorded by the combined company over the useful lives of the underlying assets. In addition, to the extent the value of goodwill or intangible assets were to become impaired, the combined company may be required to incur charges relating to the impairment of those assets.

RISKS RELATED TO INDEBTEDNESS OF THE COMBINED COMPANY

Hologic will incur significant indebtedness in order to finance the merger, which will limit the combined company's operating flexibility, and could adversely affect the combined company's operations and financial results and prevent the combined company from fulfilling its obligations.

In order to finance the cash portion of the merger consideration and other expenses incurred in connection with the merger, Hologic intends to incur up to approximately \$2.55 billion of new indebtedness, including approximately \$250 million under a five year senior secured tranche A term loan facility, \$850 million under a 5.5 year senior secured tranche B term loan facility, approximately \$1.25 billion under an 18 month senior secured capital markets term loan facility and up to \$200 million of additional indebtedness under its proposed new five year revolving credit facility. Additionally, certain other of Hologic's and Cytyc's current indebtedness may remain outstanding. These new credit facilities are anticipated to bear interest at variable rates to be determined. This level of indebtedness may:

make it more difficult for the combined company to satisfy its obligations with respect to its outstanding indebtedness;

increase the combined company's vulnerability to general adverse economic and industry conditions, including increases in interest rates;

require the combined company to dedicate a substantial portion of its cash flow from operations to interest and principal payments on its indebtedness, which would reduce the availability of its cash flow to fund working capital, capital expenditures, expansion efforts and other general corporate purposes;

limit the combined company's flexibility in planning for, or reacting to, changes in its business and the industry in which it operates;

place the combined company at a competitive disadvantage compared to its competitors that have less debt; and

limit the combined company's ability to borrow additional funds for working capital, capital expenditures, general corporate purposes or acquisitions.

In addition, the terms of the financing obligations to be incurred by the combined company in connection with the merger will contain covenants that restrict the combined company's ability, and that of its subsidiaries, to engage in certain transactions and may impair the combined company's ability to respond to changing business and economic conditions, including, among other things, limitations on the ability to:

incur additional indebtedness;

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pay dividends and make distributions;

repurchase stock;

make certain investments;

create liens;

engage in transactions with affiliates;

merge with or acquire another company; and

transfer and sell assets.

The combined company's proposed new credit facilities are also anticipated to require the combined company to satisfy certain financial covenants.

The combined company's ability to comply with these provisions may be affected by general economic conditions, political decisions, industry conditions and other events beyond the combined company's control. The combined company's failure to comply with the covenants contained in the proposed new credit facilities, including financial covenants, could result in an event of default, which could materially and adversely affect the combined company's results of operation and financial condition.

If there were an event of default under one of the combined company's debt instruments or a change of control of the combined company, the holders of the defaulted debt could cause all amounts outstanding with respect to that debt to be due and payable immediately and may be cross-defaulted to other debt. The combined company's assets or cash flow may not be sufficient to fully repay borrowings under its outstanding debt instruments if accelerated upon an event of default, and there is no guarantee that the combined company would be able to repay, refinance or restructure the payments on those debt securities.

See "The Merger Financing of the Merger" beginning on page 59.

The combined company may not be able to generate sufficient cash flow to service all of its obligations, including its obligations under its new credit facilities.

The combined company's ability to make payments on and to refinance its indebtedness, including the indebtedness incurred under the proposed new credit facilities, and to fund planned capital expenditures, strategic transactions and expansion efforts will depend on the combined company's ability to generate cash in the future. This, to a certain extent, is subject to general economic, financial, competitive, legislative, regulatory and other factors that are beyond the control of the combined company.

The combined company's business may not be able to generate sufficient cash flow from operations, and the combined company cannot assure that future borrowings will be available to it in amounts sufficient to enable it to pay its indebtedness as such indebtedness matures and to fund its other liquidity needs. If this is the case, the combined company will need to refinance all or a portion of its indebtedness on or before maturity, and there can be no assurance that it will be able to refinance any of its indebtedness, including its new credit facilities, on commercially reasonable terms, or at all. The combined company may need to adopt one or more alternatives, such as reducing or delaying planned expenses and capital expenditures, selling assets, restructuring debt, or obtaining additional equity or debt financing. These financing strategies may not be affected on satisfactory terms, if at all. The combined company's ability to refinance its indebtedness or obtain additional financing, or to do so on commercially reasonable terms, will depend on, among other things, its financial condition at the time, restrictions in agreements governing its indebtedness, and other factors, including the condition of the financial markets and the markets in which the combined company will compete.

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If the combined company does not generate sufficient cash flow from operations, and additional borrowings, refinancings or proceeds of asset sales are not available to it, the combined company may not have sufficient cash to enable it to meet all of its obligations.

The combined company may not be able to effect its plans for a refinancing of a substantial portion of its new credit facilities with convertible debt or other equity or equity-linked financing, which could adversely affect the combined company's liquidity and results of operations, and, even if completed, such refinancing could result in substantial dilution to existing stockholders of the combined company.

As soon as practicable after the effective time of the merger, Hologic intends to cause the combined company to refinance a substantial portion of the debt incurred under the proposed new credit facilities with convertible debt or other equity or equity-linked financing, with reduced interest rates, extended maturity and limited or no restrictive or other financial covenants. The combined company's ability to effect this refinancing on commercially reasonable terms will depend on, among other things, its financial condition at the time and other factors, including the condition of the financial markets and the markets in which the combined company will compete. The combined company cannot assure that it will be able to effect this refinancing on a timely basis or on favorable terms, if at all, or that such financing will not result in significant dilution to existing stockholders. Failure of the combined company to effect timely such a refinancing would likely result in an increase in the ongoing interest expense and restrictive covenants, and could otherwise adversely effect the combined company's liquidity and results of operations.

The combined company will be required to enter into hedging transactions for its variable interest rate exposure under its proposed new credit facilities which could adversely affect its ability to repay all or a portion of those facilities without incurring additional costs, and will subject the combined company to risks of default by the counterparties to those transactions.

The terms of the combined company's proposed new credit facility will obligate the combined company to enter into hedging transactions to hedge a substantial portion of the interest rate risk under those facilities. If the combined company repays, redeems or repurchases (voluntarily or mandatorily) all or a portion of its new credit facilities prior to their scheduled maturities, the combined company's obligations under those hedging transactions may cease to match the combined company's obligations under the credit facilities, and could result in significant additional expense to the combined company. These hedging transactions may not qualify for effective hedge treatment in accordance with U.S. GAAP and as a result, any changes in fair value of hedge contracts could be required to be recorded to the statement of income. In addition, default by the counterparties to the combined company's hedging transactions could result in the combined company having to make interest payments at the variable rates payable under the new credit facilities and expose the combined company further to interest rate fluctuation risk under those credit facilities.

RISKS RELATED TO HOLOGIC, CYTYC AND COMBINED COMPANY

Sales and market acceptance of the combined company's products will be dependent on third party reimbursement. Failure of third party payors to provide appropriate levels of reimbursement for use of the combined company's products could harm the combined company's business and prospects.

Sales and market acceptance of the combined company's medical products in the United States and other countries will be dependent on the reimbursement of patient's medical expenses by government healthcare programs and private health insurers. The costs of Hologic's and Cytyc's products to customers are substantial, and market acceptance of the combined company's products will continue to depend upon their customers' ability to obtain an appropriate level of reimbursement from third-party payors for use of their products. In the United States, the Centers for Medicare & Medicaid Services, known as CMS, establish guidelines for the reimbursement of healthcare providers treating Medicare and Medicaid patients. Under current CMS guidelines, varying reimbursement levels have been established for Hologic's and Cytyc's products and procedures.

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The actual reimbursement amounts are determined by individual state Medicare carriers and, for non-Medicare and Medicaid patients, private insurance carriers. There are often delays between the reimbursement approvals by CMS and by a state Medicare carrier and private insurance carriers. Moreover, states as well as private insurance carriers may choose not to follow the CMS reimbursement guidelines. The use of the combined company's products outside the United States will be similarly affected by reimbursement policies adopted by foreign governments' reimbursements and regulatory positions and insurance carriers.

In November 2006, the CMS announced reductions to the 2007 reimbursement levels for bone density assessments, CAD and breast biopsy. The most significant reductions applicable to the combined company's products were an approximately 40% decline in 2007 in reimbursement for osteoporosis (DXA) testing, which increases to an approximately 70% decline over four years, an approximately 30% decline in 2007 in reimbursement for stereotactic biopsy, which increases to an approximately 63% decline over four years, and an approximately 16% decline in reimbursement for CAD in 2007, which increases to an approximately 50% decline over four years. These reductions or any other reduction or adverse change in reimbursement policies for the use of the combined company's products could harm the combined company's business and prospects.

The combined company's business may be harmed by Hologic's and Cytoc's recently completed acquisitions.

Hologic and Cytoc have recently acquired a number of businesses, technologies, product lines, and products, including Suros Surgical Systems, Inc., R2 Technology, Inc. and AEG Elektrofotografie GmbH, in the case of Hologic, and Adeza Biomedical Corporation and Adiana, Inc., in the case of Cytoc. In addition, Hologic has recently entered into an agreement to acquire BioLucent, Inc. The success of these acquisitions will depend on the combined company's ability to realize the anticipated benefits from combining the acquired businesses with the combined company's business. The combined company may fail to realize these anticipated benefits for a number of reasons, including the following:

problems may arise with the combined company's ability to successfully integrate the acquired businesses, which may result in the combined company not operating as effectively and efficiently as expected, and may include:

diversion of management time, as well as a shift of focus from operating the businesses to issues related to integration and administration or inadequate management resources available for integration activity and oversight;

failure to retain and motivate key employees;

failure to successfully manage relationships with customers, distributors and suppliers;

failure of customers to accept new products;

failure to effectively coordinate sales and marketing efforts;

failure to combine product offerings and product lines quickly and effectively;

failure to effectively enhance acquired technology and products or develop new products relating to the acquired businesses;

potential difficulties and inefficiencies in managing and operating businesses in multiple locations or operating businesses in which the combined company has either limited or no direct experience;

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potential difficulties integrating financial reporting systems;

potential difficulties in the timely filing of required reports with the SEC; and

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potential difficulties in implementing controls, procedures and policies, including disclosure controls and procedures and internal controls over financial reporting, appropriate for a larger public company at companies that, prior to the acquisition of such companies, had lacked such controls, procedures and policies, which may result in ineffective disclosure controls and procedures or material weaknesses in internal controls over financial reporting;

the combined company may not be able to achieve the expected synergies from an acquisition or it may take longer than expected to achieve those synergies;

an acquisition may result in future impairment charges related to diminished fair value of businesses acquired as compared to the price Hologic or Cytoc paid for them;

an acquisition may involve restructuring operations or reductions in workforce which may result in substantial charges to the combined company's operations;

an acquisition may involve unexpected costs or liabilities, or the effects of purchase accounting may be different from the combined company's expectations; and

the acquired businesses may be adversely affected by future legislative, regulatory, or tax decisions and/or changes as well as other economic, business and/or competitive factors.

Hologic's acquisition of AEG Elektrofotografie, which conducts its business worldwide, with headquarters in Germany and manufacturing operations in Germany and China, is also subject to the additional challenges and risks associated with volatility in the market for organic photoconductor coatings used for laser printer cartridges, and the combined company's international operations, including those related to integration of operations across different cultures and languages, currency risk and the particular economic, legal, political and regulatory risks associated with specific countries. Failure of the combined company to realize the anticipated benefits from combining the acquired businesses could harm the combined company's business and prospects and adversely affect the market price of the combined company's common stock.

The market for Hologic's direct-to-digital full-field mammography products is relatively new and may not develop as expected.

The markets for Hologic's direct-to-digital full-field mammography products may not continue to develop as expected. There is a significant installed base of conventional screen-film mammography products in hospitals and radiological practices. The use of Hologic's direct-to-digital mammography products in many cases would require these potential customers to either modify or replace their existing x-ray imaging equipment. Moreover, as direct-to-digital mammography products are generally more expensive than conventional screen-film mammography products, Hologic believes that a major factor in the market's acceptance of direct-to-digital mammography products has been and will continue to be based upon the benefits of direct-to-digital technology as compared to less expensive technologies. As a result, the market for Hologic's direct-to-digital mammography products has and will continue to be affected by published studies and reports relating to the comparative efficacy of digital mammography products. The publication of an adverse study could significantly impair the adoption of this technology and harm the combined company's business. The implementation of digital mammography technology is also affected by the trend toward transition by the healthcare industry from conventional film archiving systems to hospital Picture Archiving and Communications Systems, known as PACS, to store x-ray images electronically. Because the benefits of Hologic's direct-to-digital mammography technology may not be fully realized by customers until they install a PACS platform, a large potential market for these products may not develop until PACS environments are more widely used. Because the markets for these products are relatively new, it is likely that the combined company's evaluation of the potential markets for these products will materially vary with time.

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Current levels of growth in the market for endometrial ablation procedures, such as Cytoc's NovaSure System, for the treatment of excessive menstrual bleeding may not be indicative of future growth.

Demand for newly introduced technologies or treatments can initially be exaggerated as supply increases to meet pre-existing demand. However, once the pre-existing demand is met, growth in the market may abruptly stop or significantly slow. Some of the current growth in the market for new endometrial ablation procedures may be the result of a considerable pre-existing unmet demand for products of this nature. Cytoc cannot predict when, or at what rate, this demand may stop or decline in growth. Cytoc cannot assure you that it will be successful in continuing to attract physicians and women to use the NovaSure System, or whether or not evolving trends in the treatment of excessive menstrual bleeding will favor new endometrial ablation procedures as compared to traditional approaches. If the demand for treatments like the NovaSure System were to stop abruptly or begin to decline, the combined company's operating results and profitability could be adversely affected.

The success of Cytoc's ThinPrep System depends upon the cost and continued market acceptance of Cytoc's ThinPrep System products.

The success of Cytoc's ThinPrep System depends on the continued market acceptance of its ThinPrep System and ThinPrep Imaging System, including any follow-on applications of ThinPrep technology. The laboratory cost of using the ThinPrep System and ThinPrep Imaging System for cervical cancer screening, both together and individually, is higher than that of a conventional Pap smear and, Cytoc believes, competing liquid-based slide preparation systems. Due in part to increased competitive pressures in the cytology screening market and healthcare industry to reduce costs, the combined company's ability to continue gaining market acceptance of the ThinPrep System and follow-on products will depend on its ability to demonstrate that the higher cost of using the ThinPrep System is offset by (i) a reduction in costs often associated with conventional Pap smears or competing liquid-based slide preparation systems, such as inaccurate diagnoses and the need for repeat Pap smears, as well as (ii) the ability to conduct additional testing, such as testing for the HPV, Chlamydia trachomatis and Neisseria gonorrhoea on samples collected in a ThinPrep vial of preservative. In particular, for the ThinPrep Imaging System, the combined company will need to work with healthcare providers, insurance companies and other third-party payors, and clinical laboratories to reinforce the known clinical efficacy and cost-effectiveness of the ThinPrep Imaging System.

Cytoc is dependent upon a relatively small number of large clinical laboratory customers in the United States for a significant portion of its sales of the ThinPrep System.

Cytoc is dependent upon a relatively small number of large clinical laboratory customers in the United States for a significant portion of its sales of the ThinPrep System. The business and prospects of the combined company may be harmed if the combined company is unable to increase sales to, or maintain pricing levels with Cytoc's existing customers and establish new customers both within and outside the United States. Due in part to a trend toward consolidation of clinical laboratories in recent years and the relative size of the largest United States laboratories, it is likely that a significant portion of ThinPrep System sales will continue to be concentrated among a relatively small number of large clinical laboratories.

The combined company's success will depend on new product development.

Each of Hologic and Cytoc has continuing research and development programs designed to develop new products and to enhance and improve its products. Hologic is expending significant resources on the development of digital x-ray imaging products, including the development of a digital mammography product to perform breast tomosynthesis, a 3-dimensional imaging technique. Cytoc is expending significant resources on continued product line enhancements. The successful development of the combined company's products and product enhancements is subject to numerous risks, both known and unknown, including:

unanticipated delays;

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access to capital;

budget overruns;

technical problems; and

other difficulties that could result in the abandonment or substantial change in the design, development and commercialization of these new products, including, for example, changes requested by the FDA in connection with pre-market approval applications for products or 510(k) notification.

Given the uncertainties inherent with product development and introduction, there can be no assurance that any of the combined company's product development efforts will be successful on a timely basis or within budget, if at all. The failure of the combined company to develop new products and product enhancements, such as Hologic's digital mammography tomosynthesis product, on a timely basis or within budget could harm the combined company's business and prospects and could adversely affect the market price of the combined company's common stock.

The markets for and future growth of the combined company's products and treatments may not develop as expected.

There can be no assurance that the combined company's existing products or treatments, or the enhancement of products or treatments will be commercially successful. The successful commercialization of the combined company's products and treatments are subject to numerous risks, both known and unknown, including:

uncertainty of the development of a market for such product or treatment;

trends relating to, or the introduction or existence of, competing products, technologies or alternative treatments or therapies that may be more effective, safer or easier to use than the combined company's products, technologies, treatments or therapies;

perceptions of the combined company's products or treatments as compared to other products and treatments;

recommendation and support for the use of the combined company's products or treatments by influential customers, such as hospitals, radiological practices, breast surgeons and radiation oncologists and treatment centers;

the availability and extent of data demonstrating the clinical efficacy of the combined company's products or treatments;

competition, including the presence of competing products sold by companies with longer operating histories, more recognizable names and more established distribution networks; and

other technological developments.

Often, the development of a significant market for a product or treatment will depend upon the establishment of a reimbursement code or an advantageous reimbursement level for use of the product or treatment. Moreover, even if addressed, such reimbursement codes or levels frequently are not addressed until after a product or treatment is developed and commercially introduced, which can delay the successful commercialization of a product or treatment. If the combined company is unable to successfully commercialize and create a significant market for its products and treatments, such as Hologic's digital mammography tomosynthesis product, due to, among other things, the lack of reimbursement codes or disadvantageous reimbursement levels for such products or treatments, the combined company's business and prospects

could be harmed and the market price of the combined company's common stock could be adversely affected.

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The combined company may not be successful in growing its international sales, which could have a material adverse effect on its business and financial condition.

The combined company cannot guarantee that it will successfully continue to develop international sales channels or capabilities that will enable it to generate significant revenue from international sales. The combined company may not be able to obtain favorable third-party reimbursements and required regulatory approvals in foreign countries. Failure to continue to increase international sales could harm the business and prospects of the combined company.

The combined company's success depends on its ability to manage growth effectively.

The operations and facilities, including the number of employees and the geographic area of operations, of Hologic and Cytac have grown rapidly, and the combined company's operations and facilities are expected to continue to grow. The failure of the combined company to manage growth effectively could harm the business and prospects of the combined company. The growth of the combined company may significantly strain the combined company's managerial, operational and financial resources and systems. To manage the combined company's growth effectively, it is expected that the combined company will continue to implement and improve additional management and financial systems and controls, and to effectively retain, expand, train and manage its employee base.

The business of the combined company could be harmed if it infringes upon the intellectual property rights of others.

There has been substantial litigation regarding patent and other intellectual property rights in the medical device and related industries. Hologic and Cytac have each been involved in infringement litigation, and may in the future be notified that the combined company may be infringing intellectual property rights possessed by third parties.

For example, in March 2005, Hologic was served with a complaint alleging that Hologic's HTGrid infringes U.S. Patent Number 5,970,118. The plaintiff sought to preliminarily and permanently enjoin Hologic from infringing the patent, as well as damages resulting from the alleged infringement, treble damages and reasonable attorney fees, and such other and further relief as may be available. In March 2007, the court granted Hologic's motion for summary judgment and dismissed the complaint with prejudice. The plaintiff has a right to appeal the matter after conclusion of the case as a whole.

On June 16, 2003, Cytac filed a suit for Declaratory Judgment in United States District Court for the District of Massachusetts asking the court to determine and declare that certain of TriPath Imaging, Inc.'s patents are invalid and not infringed by Cytac's ThinPrep Imaging System. On June 17, 2003, TriPath announced that it had filed a lawsuit against Cytac in the United States District Court for the Middle District of North Carolina alleging patent infringement, false advertising, defamation, intentional interference, unfair competition, and unfair and deceptive trade practices. In its complaint TriPath sought the issuance of a preliminary and permanent injunction enjoining Cytac from infringing the asserted patents and to award unspecified damages, unspecified treble damages and attorneys' fees, and the impounding and destruction of the alleged infringing products. As to the non-patent claims, TriPath sought unspecified damages, punitive damages and attorneys' fees. The non-patent claims have been dismissed and the patent cases have since been consolidated into a single action. On August 22, 2007 the judge issued rulings on summary judgment motions filed by both Cytac and TriPath. As a result, two of the four asserted patents were determined to be either invalid or not infringed by Cytac and the remaining two patents were found to have questions of fact for resolution at trial. The Court has scheduled a trial start date of October 29, 2007. See Annex B under Information about Cytac Legal Proceedings.

In connection with litigation or if any claims are asserted against the combined company's intellectual property rights, the combined company may seek to enter into royalty or licensing arrangements. There is a risk in these situations that no license will be available or that a license will not be available on reasonable terms.

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Alternatively, the combined company may decide to litigate such claims or to design around the patented technology. These actions could be costly and would divert the efforts and attention of the combined company's management and technical personnel. As a result, any infringement claims by third parties or claims for indemnification by customers resulting from infringement claims, whether or not proven to be true, may harm the combined company's business and prospects.

If Hologic fails to achieve and maintain the high manufacturing standards that Hologic's direct radiography products require, the combined company may not be successful in developing and marketing those products.

The manufacture of Hologic's direct radiography detectors is highly complex and requires precise high quality manufacturing that is difficult to achieve. Hologic has in the past and the combined company may in the future experience difficulties in manufacturing these detectors in commercial quantities, primarily related to delays and difficulties in obtaining critical components for these detectors that meet Hologic's high manufacturing standards. Hologic's initial difficulties led to increased delivery lead-times and increased costs of manufacturing these products. The combined company's failure, including the failure of its contract manufacturers, to achieve and maintain the required high manufacturing standards could result in further delays or failures in product testing or delivery, cost overruns, product recalls or withdrawals, or other problems that could harm the combined company's business and prospects.

Interruptions, delays, shutdowns or damage at the combined company's manufacturing facilities could harm its business.

Hologic manufactures most of its products at its manufacturing facilities in Danbury, Connecticut, Bedford, Massachusetts, Indianapolis, Indiana and Newark, Delaware. In addition, Hologic manufactures the selenium coatings used in the digital x-ray image capture radiographic systems in Germany and its selenium and organic photoconductor coatings for other uses in Germany and China. Cytac assembles and manufactures its ThinPrep products at its facilities in Marlborough, Massachusetts and Londonderry, New Hampshire. In addition, Cytac manufactures its NovaSure System and MammoSite System in Costa Rica. An interruption in manufacturing capabilities at any of these facilities, as a result of equipment failure or other reasons, could reduce, delay or prevent the production of the combined company's products. The manufacturing facilities of the combined company will be subject to the risk of catastrophic loss due to unanticipated events, such as fires, earthquakes, explosions, floods or weather conditions. The combined company's manufacturing facilities may experience plant shutdowns, strikes or other labor disruptions, or periods of reduced production as a result of equipment failures, loss of power, gray outs, delays in deliveries or extensive damage to any of its facilities, which could harm the business and prospects of the combined company. Because some of the combined company's manufacturing operations will be located in Germany, China and Costa Rica, those manufacturing operations will also be subject to additional challenges and risks associated with international operations described below.

The uncertainty of healthcare reform could harm the combined company's business and prospects.

In recent years, the healthcare industry has undergone significant change driven by various efforts to reduce costs, including efforts at national healthcare reform, trends toward managed care, cuts in Medicare, consolidation of healthcare distribution companies and collective purchasing arrangements by office-based healthcare practitioners. Healthcare reform proposals and medical cost containment measures in the United States and in many foreign countries could:

limit the use of the combined company's products;

reduce reimbursement available for such use; or

adversely affect the use of new therapies for which the combined company's products may be targeted.

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These reforms or cost containment measures, including the uncertainty in the medical community regarding their nature and effect, could harm the combined company's business and prospects.

The combined company's business could be harmed if products contain undetected errors or defects or do not meet customer specifications.

Hologic and Cytyc are continuously developing new products and improving their existing products. Newly introduced products can contain undetected errors or defects. In addition, these products may not meet their performance specifications under all conditions or for all applications. If, despite internal testing and testing by customers, any of the combined company's products contain errors or defects or fail to meet customer specifications, then the combined company may be required to enhance or improve those products or technologies. The combined company may not be able to do so on a timely basis, if at all, and may only be able to do so at considerable expense. In addition, any significant reliability problems could result in adverse customer reaction, negative publicity or legal claims and could harm the combined company's business and prospects.

The combined company will rely on one or only a limited number of suppliers for some key components or subassemblies for its products, which could harm the combined company's business and prospects.

Hologic and Cytyc each rely on one or only a limited number of suppliers for some key components or subassemblies for their products. In particular, Hologic has a limited number of suppliers for the panel for its direct radiography products and AEG, one of Hologic's subsidiaries, is Hologic's sole source provider for Selenium coatings. In addition, Hologic has only limited sources of supply for some key components used in its mini C-arm systems and its Surob biopsy systems. Cytyc currently obtains certain key components of its products, including the proprietary filter material and microscope slides used in the ThinPrep Pap Test, radioisotopes, certain balloons and other items used in the design and manufacture of the MammoSite System and the Iotrex liquid isotope used with the GlioSite System, from single or a limited number of sources due to technology, availability, price, quality and other considerations. Additionally, the NovaSure System utilizes several components that may become obsolete or no longer be manufactured.

Obtaining alternative sources of supply of these components could involve significant delays and other costs and regulatory challenges, and may not be available to the combined company on reasonable terms, if at all. The failure of a component supplier or contract assembler to provide sufficient quantities, acceptable quality and timely components or assembly service at an acceptable price, or an interruption of supplies from such a supplier could harm the business and prospects of the combined company. Any disruption of supplies of key components could delay or reduce shipments, which could result in lost or deferred sales for the combined company.

The combined company will face intense competition from other companies and may not be able to compete successfully.

A number of companies have developed, or are expected to develop, products that compete or will compete with the combined company's products. Some of combined company's competitors will be large companies that may enjoy significant competitive advantages over the combined company, including:

significantly greater name recognition;

established distribution networks;

additional lines of products, and the ability to offer rebates or bundle products to offer discounts or incentives to gain competitive advantage;

more extensive research, development, sales, marketing and manufacturing capabilities; and

better positioning to continue to improve their technology in order to compete in an evolving industry.

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The markets in which the combined company will sell in are intensely competitive, subject to rapid change and may be significantly affected by new product introductions and other market activities of industry participants. Other companies may develop products that are superior to or less expensive, or both, than the combined company's products. Improvements in existing competitive products or the introductions of new competitive products may reduce the combined company's ability to compete for sales, particularly if those competitive products demonstrate better safety or effectiveness, clinical results, ease of use or lower costs.

If the combined company is unable to compete effectively against existing and future competitors and existing and future alternative treatments, the business and prospects of the combined company could be harmed.

The combined company's success will depend upon its ability to adapt to rapid changes in technology and customer requirements.

The markets for Hologic's and Cytyc's products have been characterized by rapid technological change, frequent product introductions and evolving customer requirements. These trends will likely continue into the foreseeable future. The combined company's success will depend, in part, upon its ability to enhance the existing products of Hologic and Cytyc, successfully develop new products that meet increasing customer requirements and gain market acceptance. If the combined company fails to do so its products may be rendered obsolete or uncompetitive by new industry standards or changing technology.

The combined company's results of operations will be subject to significant quarterly variation and seasonal fluctuation.

Hologic's and Cytyc's results of operations have been and may continue to be subject to significant quarterly variation. The combined company's results for a particular quarter may also vary due to a number of factors, including:

the overall state of healthcare and cost containment efforts;

the timing and level of reimbursement for the combined company's products domestically and internationally;

the development status and demand for the combined company's products;

the development status and demand for therapies to treat breast cancer and osteoporosis;

economic conditions in the combined company's markets;

foreign exchange rates;

the timing of orders;

the timing of expenditures in anticipation of future sales;

the mix of products the combined company sells;

the introduction of new products and product enhancements by the combined company or its competitors;

pricing and other competitive conditions; and

unanticipated expenses.

Customers may also cancel or reschedule shipments. Production difficulties could also delay shipments. Any of these factors also could harm the combined company's business and prospects.

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The combined company's delay or inability to obtain any necessary United States or foreign regulatory clearances or approvals for its products could harm the combined company's business and prospects.

Hologic's and Cytoc's products are, and the combined company's products will be, medical devices that are the subject of a high level of regulatory oversight. The combined company's delay or inability to obtain any necessary United States or foreign regulatory clearances or approvals for its products, such as Hologic's digital mammography tomosynthesis product, could harm its business and prospects and could adversely affect the market price of the combined company's common stock. The process of obtaining clearances and approvals can be costly and time-consuming. There is a risk that any approvals or clearances, once obtained, may be withdrawn or modified.

Medical devices cannot be marketed in the United States without clearance or approval by the FDA. Any modifications to a device that has received a pre-market approval that affect its safety or effectiveness require a pre-market approval supplement or possibly a separate pre-market approval, either of which is likely to be time-consuming, expensive and uncertain to obtain. If the FDA requires the combined company to seek one or more pre-market approval supplements or new pre-market approvals for any modification to a previously approved device, the combined company may be required to cease marketing or to recall the modified device until it obtains approval, and the combined company may be subject to significant criminal and/or civic sanctions, including but not limited to, regulatory fines or penalties.

Medical devices sold in the United States must also be manufactured in compliance with FDA Good Manufacturing Practices, which regulate the design, manufacture, packing, storage and installation of medical devices. Moreover, medical devices are required to comply with FDA regulations relating to investigational research and labeling. States may also regulate the manufacture, sale and use of medical devices, particularly those that employ x-ray technology. The combined company's products will also be subject to approval and regulation by foreign regulatory and safety agencies.

Recent proposed changes to reclassify full-field digital mammography to permit 510(k) clearance could increase competition for Hologic's digital mammography products.

On May 23, 2006 the FDA Radiological Devices Panel recommended the reclassification of full-field digital mammography systems from Class III to Class II devices. The FDA has not taken any additional steps to act on the panel's recommendation. If the FDA implements the panel's recommendation, the reclassification would allow full-field digital mammography systems to be cleared for commercialization through the 510(k) process, which is less rigorous than the present pre-market approval process. If and when implemented, the reclassification for full-field digital mammography systems from Class III to Class II devices may lower barriers of entry into the digital mammography market, may result in more competitors entering the United States market and could harm sales of Hologic's digital mammography systems.

The combined company's products may be subject to recalls even after receiving FDA clearance or approval, which could harm the combined company's business and prospects.

The FDA and similar governmental bodies in other countries have the authority to require the recall of medical products in the event of material deficiencies or defects in design or manufacture. A government mandated or voluntary recall by the combined company could occur as a result of component failures, manufacturing errors or design defects, including defects in labeling. Any recall could harm the reputation of the combined company's products and adversely affect the combined company's business and prospects.

Some of the combined company's activities may subject the combined company to risks under federal and state laws prohibiting kickbacks and false or fraudulent claims.

Hologic and Cytoc are, and the combined company will be, subject to the provisions of a federal law commonly known as the Medicare/Medicaid anti-kickback law, and several similar state laws, which prohibit

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payments intended to induce physicians or others either to refer patients or to acquire or arrange for or recommend the acquisition of healthcare products or services. While the federal law applies only to referrals, products or services for which payment may be made by a federal healthcare program, state laws often apply regardless of whether federal funds may be involved. These laws constrain the sales, marketing and other promotional activities of manufacturers of medical devices by limiting the kinds of financial arrangements, including sales programs, with hospitals, physicians, laboratories and other potential purchasers of medical devices. Other federal and state laws generally prohibit individuals or entities from knowingly presenting, or causing to be presented, claims for payment from Medicare, Medicaid, or other third-party payors that are false or fraudulent, or are for items or services that were not provided as claimed. Anti-kickback and false claims laws prescribe civil and criminal penalties (including fines) for noncompliance that can be substantial. While Hologic and Cytyc continually strive, and the combined company will strive, to comply with these complex requirements, interpretations of the applicability of these laws to marketing practices is ever evolving and even an unsuccessful challenge could cause adverse publicity and be costly to respond to, and thus could harm the business and prospects of the combined company.

The combined company is subject to the risk of product liability claims relating to its products.

Hologic's and Cytyc's businesses involve, and the combined company's business will involve, the risk of product liability and other claims inherent to the medical device business. If even one of the combined company's products is found to have caused or contributed to injuries or deaths, the combined company could be held liable for substantial damages. Hologic and Cytyc maintain, and the combined company will maintain, product liability insurance subject to deductibles and exclusions. There is a risk that the insurance coverage will not be sufficient to protect the combined company from product and other liability claims, or that product liability insurance will not be available to the combined company at a reasonable cost, if at all. An under-insured or uninsured claim could harm the business and prospects of the combined company. In addition, claims could adversely affect the reputation of the related product, which could damage that product's competitive position in the market.

The sale and use of one of the combined company's diagnostic products could also lead to the filing of product liability claims if someone were to allege that one of the combined company's products contained a design or manufacturing defect that resulted in the failure to detect a disorder for which it was being used to screen or caused injuries to a patient. Any product liability claim brought against the combined company, with or without merit, could result in the increase of the combined company's product liability insurance rates or the inability to secure additional coverage in the future. Also, even a meritless or unsuccessful product liability claim could be time consuming and expensive to defend, which could result in a diversion of management's attention from the combined company's business and could adversely affect the perceived safety and efficacy of the combined company's products, and could harm the business and prospects of the combined company.

The combined company will use hazardous materials and products.

Hologic's and Cytyc's research and development involves, and the combined company's research and development will involve, the controlled use of hazardous materials, such as toxic and carcinogenic chemicals and various radioactive compounds. Although Hologic and Cytyc believe that their safety procedures for handling and disposing of such materials comply with the standards prescribed by federal, state and local regulations, the risk of accidental contamination or injury from these materials cannot be eliminated. In the event of this type of accident, the combined company could be held liable for any resulting damages, and any such liability could be extensive. Hologic and Cytyc are also subject, and the combined company will be subject, to substantial regulation relating to occupational health and safety, environmental protection, hazardous substance control, and waste management and disposal. The failure to comply with such regulations could subject the combined company to, among other things, fines and criminal liability.

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Fluctuations in the exchange rates of European currencies and the other foreign currencies in which the combined company will conduct its business, in relation to the U.S. dollar, could harm the combined company's business and prospects.

Hologic maintains a sales and service office in Belgium, and Hologic's AEG Elektrofotografie subsidiary conducts its business worldwide, with headquarters in Germany and manufacturing operations in Germany and China. The expenses of these offices are denominated in local currencies, and Hologic's foreign sales may be denominated in local currencies, the Euro or U.S. dollars.

Cytyc's business outside the United States is conducted primarily in local currencies, except at its Costa Rica subsidiary, where the majority of business is conducted in U.S. dollars.

Fluctuations in foreign currency exchange rates could affect the combined company's cost of goods and operating margins and could result in exchange losses. In addition, currency devaluation can result in a loss to the combined company if it holds deposits of that currency. Hologic has hedged its foreign currency exposure by borrowing funds in local European currencies to pay the expenses of its foreign offices. In addition, Hologic's recently acquired AEG operation has engaged in hedging activities, such as currency swaps, to hedge its foreign currency exposure. There is a risk that any hedging activities will not be successful in mitigating the combined company's foreign exchange risk exposure.

The combined company's international operations expose the combined company to additional operational challenges that it might not otherwise face.

Hologic and Cytyc are, and the combined company will be, subject to a number of additional risks and expenses due to their international operations. Any of these risks or expenses could have a material adverse effect on the combined company's operating results. These risks and expenses include:

difficulties in staffing and managing operations in multiple locations as a result of, among other things, distance, language and cultural differences;

protectionist laws and business practices that favor local companies;

greater difficulties in trade accounts receivable collection;

difficulties and expenses related to implementing internal controls over financial reporting and disclosure controls and procedures;

expenses associated with customizing products for clients in foreign countries;

possible adverse tax consequences;

governmental currency controls;

multiple, conflicting and changing government laws and regulations (including, among other things, antitrust and tax requirements, international trade regulations and the Foreign Corrupt Practices Act);

reduced protection for intellectual property rights in some countries;

political and economic changes and disruptions;

export/import controls; and

tariff regulations.

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The business of the combined company could be harmed if it is unable to protect its proprietary technology.

Hologic and Cytac have relied, and the combined company will rely, primarily on a combination of trade secrets, patents, copyright and trademark laws and confidentiality procedures to protect its products and technology. Despite these precautions, unauthorized third parties may infringe, copy or reverse engineer portions of the combined company's technology. Hologic and Cytac do not know if current or future patent applications will be issued with the scope of the claims sought, if at all, or whether any patents issued will be challenged or invalidated. In addition, Hologic and Cytac have each obtained or applied for corresponding patents and patent applications in several foreign countries for some of its patents and patent applications. There is a risk that these patent applications will not be granted or that the patent or patent application will not provide significant protection for Hologic's, Cytac's or the combined company's products and technology. Competitors of the combined company may independently develop similar technology that Hologic's, Cytac's or the combined company's patents do not cover. In addition, because patent applications in the United States are not generally publicly disclosed until eighteen months after the application is filed, applications may have been filed by third parties which relate to Hologic's, Cytac's or the combined company's technology. Moreover, there is a risk that foreign intellectual property laws will not protect the intellectual property rights of the combined company to the same extent as United States intellectual property laws. In the absence of significant patent protection, the combined company may be vulnerable to competitors who attempt to copy its products, processes or technology.

The combined company's future success will depend on the continued services of key personnel.

The loss of any key personnel of the combined company, particularly key research and development personnel, could harm the combined company's business and prospects and could impede the achievement of the combined company's research and development, operational or strategic objectives. The combined company's success will also depend upon its ability to attract and retain other qualified managerial and technical personnel. Competition for such personnel, particularly software engineers and other technical personnel, is intense. The combined company may not be able to attract and retain personnel necessary for the development of its business.

The combined company's business may be harmed by acquisitions it completes in the future.

The combined company's identification of suitable acquisition candidates involves risks inherent in assessing the values, strengths, weaknesses, risks and profitability of acquisition candidates, including the effects of the possible acquisition on its business, diversion of its management's attention and risks and costs associated with unanticipated problems or latent liabilities, such as litigation, investigations or inquiries in connection with acquisitions that it completes. If the combined company is successful in pursuing future acquisitions, it will be required to expend significant funds, incur additional debt or issue additional securities, which may negatively affect its results of operations and be dilutive to the combined company's stockholders. If the combined company spends significant funds or incurs additional debt, its ability to obtain financing for working capital or other purposes could decline, and it may be more vulnerable to economic downturns and competitive pressures. Neither Hologic nor Cytac can guarantee that the combined company will be able to finance additional acquisitions or that the combined company will realize any anticipated benefits from acquisitions that it completes. Should the combined company acquire another business, the process of integrating acquired operations into its existing operations may result in unforeseen operating difficulties and may require significant financial resources that would otherwise be available for the ongoing development or expansion of its existing business.

The combined company's failure to manage current or future alliances or joint ventures effectively may harm the combined company's business and prospects.

Hologic and Cytac have entered into, and the combined company may enter into, alliances, joint ventures or other business relationships. Alliances with certain partner or companies could make it more difficult for the

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combined company to enter into advantageous business transactions or relationships with others. Moreover, the combined company may not be able to:

identify appropriate candidates for alliances or joint ventures;

assure that any alliance or joint venture candidate will provide the combined company with the support anticipated;

successfully negotiate an alliance or joint venture on terms that are advantageous to the combined company; or

successfully manage any alliance or joint venture.

Furthermore, any alliance or joint venture may divert management time and resources. Entering into a disadvantageous alliance or joint venture, failing to manage an alliance or joint venture effectively, or failing to comply with obligations in connection therewith, could harm the combined company's business and prospects.

The combined company will be exposed to potential risks and it will continue to incur significant costs as a result of the internal control testing and evaluation process mandated by Section 404 of the Sarbanes-Oxley Act of 2002.

Hologic assessed the effectiveness of its internal control over financial reporting as of September 30, 2006 and assessed all deficiencies on both an individual basis and in combination to determine if, when aggregated, they constitute a material weakness. As a result of this evaluation, no material weaknesses were identified.

Cytc assessed the effectiveness of its internal control over financial reporting as of December 31, 2006, and determined that it did not implement controls necessary to provide reasonable assurance that the accounting for certain stock option exercise activity that occurred during the period from 1996 through 2002 was properly recorded in its financial statements included in its annual report on Form 10-K for the year ended December 31, 2006, in accordance with Accounting Principles Board Opinion No. 25, Accounting for Stock Issued to Employees. To remedy this material weakness Cytc enhanced its policies surrounding consultations on complex technical accounting matters to include third-party subject matter experts, including experts with additional specific knowledge of the accounting for the types of stock option exercise activity described above, to assist Cytc in reaching a conclusion regarding the accounting for this stock option exercise activity in accordance with Accounting Principles Board Opinion No. 25. This remediation effort was tested and found to be effective as of the date of the filing of Cytc's amendment to its annual report on Form 10-K for the year ended December 31, 2006.

Following the completion of the merger, the combined company expects to continue to incur significant costs, including increased accounting fees and increased staffing levels, in order to maintain compliance with Section 404 of the Sarbanes-Oxley Act. The combined company will continue to monitor controls for any weaknesses or deficiencies. No evaluation can provide complete assurance that the combined company's internal controls will detect or uncover all failures of persons within the company to disclose material information otherwise required to be reported. The effectiveness of the combined company's controls and procedures could also be limited by simple errors or faulty judgments. In addition, as the combined company continues to expand globally, the challenges involved in implementing appropriate internal controls will increase and will require that the combined company continues to improve its internal controls over financial reporting.

Hologic's assessment of internal controls in fiscal 2006 did not include Hologic's recently acquired entities of AEG, R2 and Suros. In 2007, Cytc acquired Adeza Biomedical Corporation and Adiana, Inc. Hologic's assessment of internal control over financial reporting is expected to include AEG, R2 and Suros in fiscal 2007, and is expected to include Cytc, Adeza Biomedical Corporation and Adiana Inc. in fiscal 2008. The combined company expects to face additional challenges in implementing the required processes, procedures and controls as a result of the merger and other acquired operations. For example, Hologic's recently acquired companies do

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not have disclosure controls and procedures or internal control over financial reporting that are as thorough or effective as those required by securities law applicable to public companies in the United States. Although the combined company intends to devote substantial time and incur substantial costs, as necessary, to ensure ongoing compliance, the combined company cannot be certain that it will be successful in complying with Section 404 of the Sarbanes-Oxley Act.

In the future, if the combined company fails to complete the Sarbanes-Oxley 404 evaluation in a timely manner, or if its independent registered public accounting firm cannot attest in a timely manner to the combined company's evaluation, the combined company could be subject to regulatory scrutiny and a loss of public confidence in the combined company's internal controls which could adversely impact the market price of Hologic common stock. The combined company or its independent registered public accounting firm may identify material weaknesses in internal controls over financial reporting which may result in a loss of public confidence in the combined company's internal controls and adversely impact the market price of Hologic common stock. In addition, any failure to implement required, new or improved controls, or difficulties encountered in their implementation, could harm the combined company's operating results or cause the combined company to fail to meet its reporting obligations.

RISKS RELATED TO HOLOGIC COMMON STOCK

Provisions in Hologic's charter and bylaws and its stockholder rights plan may have the effect of discouraging advantageous offers for Hologic's business or common stock and limit the price that investors might be willing to pay in the future for shares of Hologic common stock.

Hologic's charter, bylaws and the provisions of the DGCL include provisions that may have the effect of discouraging or preventing a change in control. In addition, Hologic has a stockholder rights plan that may have the effect of discouraging or preventing a change in control. These provisions could limit the price that Hologic stockholders might receive in the future for shares of Hologic common stock.

Hologic's stock price is volatile.

The market price of Hologic common stock has been, and may continue to be, highly volatile. Hologic believes that a variety of factors could cause the price of its common stock to fluctuate, perhaps substantially, including:

announcements and rumors of developments related to Hologic's business, including changes in reimbursement rates, proposed and completed acquisitions, or the industry in which Hologic competes;

quarterly fluctuations in Hologic's actual or anticipated operating results and order levels;

general conditions in the worldwide economy;

announcements of technological innovations;

new products or product enhancements by Hologic or its competitors;

developments in patents or other intellectual property rights and litigation; and

developments in relationships with Hologic's customers and suppliers.

In addition, in recent years the stock market in general and the markets for shares of high-tech companies, have experienced extreme price fluctuations which have often been unrelated to the operating performance of affected companies. Any such fluctuations in the future could adversely affect the market price of Hologic's common stock, and the market price of Hologic common stock may decline.

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CAUTIONARY STATEMENT REGARDING

FORWARD-LOOKING STATEMENTS

This joint proxy statement/prospectus contains certain forward-looking information about Hologic, Cytyc and the combined company that is intended to be covered by the safe harbor for forward-looking statements provided by the Private Securities Litigation Reform Act of 1995. These statements may be made directly in this joint proxy statement/prospectus or may be incorporated into this joint proxy statement/prospectus by reference to other documents and may include statements for the period following the completion of the merger. Representatives of Hologic and Cytyc may also make forward-looking statements. Forward-looking statements are statements that are not historical facts. Words such as expect, believe, will, may, might, anticipate, plan, estimate, intend, should, can, likely, expressions are intended to identify forward-looking statements. These statements include, but are not limited to statements about the expected benefits of the merger, information about the combined company, including expected synergies and projected revenues and cash flows, combined operating and financial data, including future financial and operating results, the combined company's objectives, plans and expectations, the likelihood of satisfaction of certain conditions to the completion of the merger and whether and when the merger will be completed. These statements are subject to risks and uncertainties, including the risks described in this joint proxy statement/prospectus under the section Risk Factors, those listed in Annex B under Information about Cytyc Risk Factors with respect to Cytyc, and those that are incorporated by reference into this joint proxy statement/prospectus with respect to Hologic that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements.

Forward-looking statements are not guarantees of performance. These statements are based upon the current beliefs and expectations of management of Hologic and Cytyc and are subject to a number of factors that could cause actual outcomes and results to be materially different from those projected or anticipated. In light of these risks, uncertainties, assumptions and factors, the forward-looking statements discussed in this joint proxy statement/prospectus or made by representatives of Hologic or Cytyc may not occur. Readers are cautioned not to place undue reliance on these forward-looking statements which speak only as of the date hereof or, in the case of statements incorporated by reference, on the date of the document incorporated by reference, or, in the case of statements made by representatives of Hologic or Cytyc, on the date those statements are made. All subsequent written and oral forward-looking statements concerning the merger or the combined company or other matters addressed in this joint proxy statement/prospectus and attributable to Hologic or Cytyc or any person acting on their behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. Except to the extent required by applicable law or regulation, neither Hologic nor Cytyc undertakes any obligation to update or publish revised forward-looking statements to reflect events or circumstances after the date hereof or the date of the forward-looking statements or to reflect the occurrence of unanticipated events.

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THE MERGER

The following discussion contains important information relating to the merger. You are urged to read this discussion together with the merger agreement and related documents attached as annexes to this joint proxy statement/prospectus before voting on the merger agreement and the merger or the amendment to Hologic's charter and issuance of Hologic common stock in the merger.

Structure of the Merger

The merger agreement provides for the merger of Cytyc with and into Nor'easter Corp., a wholly owned subsidiary of Hologic that was formed for the purpose of the merger, with Nor'easter Corp. surviving the merger. At the effective time of the merger, the surviving entity will remain a wholly owned subsidiary of Hologic, and Nor'easter Corp. will be renamed Cytyc Corporation. The merger will become effective when Nor'easter Corp. and Cytyc file a certificate of merger with the Secretary of State of the State of Delaware (or at such later time as Hologic and Cytyc mutually agree and specify in the certificate of merger). The time the merger becomes effective is referred to as the effective time of the merger.

Merger Consideration

At the effective time of the merger, each issued and outstanding share of Cytyc common stock will be converted into the right to receive 0.52 of a share, referred to as the exchange ratio, of Hologic common stock, referred to as the stock merger consideration, and \$16.50 in cash without interest, referred to as the cash merger consideration. The stock merger consideration, together with the cash merger consideration and any cash received in lieu of fractional shares, is referred to as the merger consideration. Cytyc stockholders will receive cash in lieu of any fractional shares of Hologic common stock that would have otherwise been received in the merger. See The Merger Agreement Fractional Shares beginning on page 118.

Hologic and Cytyc expect that, upon completion of the merger, assuming conversion of all of Cytyc's outstanding 2.25% Senior Convertible Notes due 2024, the Cytyc stockholders immediately prior to the merger will own approximately 55% of the outstanding common stock of the combined company, and the Hologic stockholders immediately prior to the merger will own approximately 45% of the outstanding common stock of the combined company.

Background of the Merger

Each of Hologic's and Cytyc's board of directors has from time to time in recent years engaged with senior management in strategic reviews and considered ways to enhance its company's performance and prospects in light of the business and economic environment. For each company, these reviews have included consideration of potential transactions with third parties that would further its strategic objectives and the potential benefits and risks of those transactions. With respect to both Hologic and Cytyc, these strategic reviews have on several occasions related to informal exploratory discussions regarding potential strategic transactions, including possible business combinations with each other and other companies in the life sciences/healthcare industry.

Given the relative close proximity and similar business focus of Hologic and Cytyc, both being Massachusetts-based public companies focused on women's health, the companies have been familiar with each other's businesses for a number of years.

Approximately three years ago, Thomas Umbel, senior vice president of business development of Hologic contacted a business development representative of Cytyc, to discuss whether the parties would be interested in further exploring potential business opportunities. Nothing materialized from these conversations at that time.

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Later, in May 2006, Mr. Umbel and Eric von Stetten, director of research of Hologic, and John P. McDonough, senior vice president of Cytyc, had informal discussions regarding the merits of a possible business combination between Hologic and Cytyc. These discussions remained preliminary and were not pursued further at that time.

On September 11, 2006, at a regular meeting of the board of directors of Hologic, Mr. von Stetten reviewed and discussed with the board of directors strategic initiatives and diversification opportunities within the women's healthcare market, which included a discussion of the preliminary inquiries made to Cytyc.

On January 30, 2007, John W. Cumming, chairman and chief executive officer of Hologic, and Mr. Umbel met with representatives of Goldman Sachs to discuss possible strategic transactions with a number of companies, including Cytyc.

In February 2007, Mr. Umbel contacted Mr. McDonough to determine if Cytyc would be interested in re-examining a possible business combination.

On February 22, 2007, Mr. Umbel met with Mr. McDonough at Cytyc's executive offices in Marlborough, Massachusetts to exchange views with respect to a possible business combination between Hologic and Cytyc.

On February 23, 2007, Patrick J. Sullivan, chairman, chief executive officer and president of Cytyc, and Mr. Cumming spoke by telephone regarding the possibility of combining the two companies and agreed to meet in person to discuss further.

During the week of February 26, 2007, Messrs. Cumming and Sullivan spoke by telephone and further discussed the possibility of a business combination between Hologic and Cytyc. Mr. Sullivan informed Mr. Cumming that he would discuss their conversation with certain members of senior management of Cytyc and its board of directors.

On March 6, 2007, at a meeting of the board of directors of Hologic, Mr. Cumming reviewed and discussed with the Hologic board of directors an overview of the women's healthcare market and possible opportunities for Hologic in those markets, including the potential benefits of a possible business combination with Cytyc. In connection with that discussion, Mr. Cumming advised the board of directors of the preliminary status of discussions between Hologic and Cytyc. Following the discussion, Mr. Cumming was authorized to continue to pursue those discussions.

At a meeting of the Cytyc board of directors on March 14, 2007, members of Cytyc senior management reviewed with the Cytyc board of directors the prior discussions between representatives of Cytyc and Hologic and discussed with the Cytyc board of directors the strategic rationale for a potential business combination. In addition, representatives of Hogan & Hartson LLP, Cytyc's outside legal counsel, referred to as Hogan & Hartson, discussed the fiduciary duties applicable to the Cytyc board of directors in the context of the ongoing discussions. Following questions and discussions among the participants at the meeting, the Cytyc board of directors authorized and directed Cytyc's senior management to continue discussions with Hologic.

On March 21, 2007, Messrs. Cumming and Sullivan spoke by telephone and agreed to meet with each other and certain other members of senior management of each company to further explore a potential business combination between the parties.

On March 23, 2007, Messrs. Umbel and McDonough spoke by telephone to arrange future meetings and identify discussion topics.

On the evening of March 27, 2007, Messrs. Cumming and Umbel met with Messrs. Sullivan and McDonough. During this meeting, the parties had an in-depth conversation concerning the merits of a possible business combination between Hologic and Cytyc.

On the morning of March 28, 2007, Messrs. Cumming and Sullivan met to continue their discussion from the previous night.

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On April 5, 2007, the parties entered into a mutual confidentiality agreement, with customary standstill provisions, so that both parties could have access to more detailed information to explore further the possibility of a business combination.

On the evening of April 5, 2007, Messrs. Cumming, Umbel, and von Stetten, Robert A. Cascella, president and chief operating officer of Hologic, Glenn P. Muir, executive vice president of finance and chief financial officer of Hologic, and David Brady, senior vice president of human resources of Hologic, met with Mr. McDonough, Timothy M. Adams, chief financial officer of Cytyc, and Daniel J. Levangie, executive vice president of Cytyc and president of Cytyc surgical products. During this meeting, the parties discussed in further detail a possible business combination between Hologic and Cytyc and the possible synergies between the companies. Immediately prior to this meeting, representatives of Hologic had informed Mr. McDonough that Hologic would be prepared to consider offering, subject to, among other things, the satisfactory completion of due diligence and the negotiation of mutually agreeable definitive agreements, a significant premium to the current market price to acquire Cytyc and to use a combination of cash and shares of Hologic common stock as consideration in the transaction.

On April 6, 2007, at a special meeting of the board of directors of Hologic, the board of directors met with members of senior management and its outside legal counsel, Brown Rudnick Berlack Israels LLP, referred to as Brown Rudnick. During this meeting, senior management discussed its conversations with senior management of Cytyc, and reviewed the background and recent preliminary discussions that certain members of management had with representatives of Cytyc. Management and the board of directors discussed the potential benefits and risks associated with a business combination with Cytyc, the business and financial results of Cytyc, a possible range of prices and the mix of consideration to be offered to stockholders of Cytyc, and possible sources of financing for the transaction. Management also reported to the board of directors that follow-up meetings were planned with Cytyc management to further pursue this possible transaction. The board of directors also discussed with counsel its fiduciary duties applicable to the proposed transaction. Following these discussions, the board of directors of Hologic unanimously supported the continuance of further discussions with Cytyc.

On April 9, 2007, representatives of Hologic's senior management team met with representatives of Cytyc's senior management team at the Westin Hotel in Waltham, Massachusetts. During this meeting, the parties further discussed the possible benefits of a business combination, and commenced initial financial and business due diligence.

On April 23, 2007, the Cytyc board of directors held a telephonic meeting, together with members of Cytyc senior management and representatives of Hogan & Hartson and Morgan Stanley, Cytyc's financial advisor. Management updated the Cytyc board of directors on the status of discussions with Hologic, including the proposed amount and mix of stock and cash consideration to be offered to Cytyc stockholders, and reviewed with the Cytyc board of directors the business, operations and products of Hologic. Representatives of Morgan Stanley reported on certain preliminary financial analyses with respect to the proposed transaction, and representatives from Hogan & Hartson discussed the fiduciary duties applicable to the Cytyc board of directors in the context of the proposed transaction. Following questions and discussions among those in attendance, the Cytyc board of directors authorized Cytyc management to continue discussions with Hologic.

Throughout the remainder of the month of April and the first week of May 2007, senior management and representatives of Hologic and Cytyc continued to meet to further explore a potential business combination transaction. During these meetings, the parties made presentations on a variety of aspects of each party's business. The parties also continued to discuss the possible synergies between the companies, the benefits and challenges of the business combination, corporate governance and board composition matters, employee matters, and the mix of cash and stock consideration to be offered to Cytyc stockholders. The parties also conducted mutual financial, legal and other customary due diligence. During this period, representatives of Cytyc informed representatives of Hologic that Cytyc would seek a premium of at least 30% to the current market price and would seek to have at least 25-30% of the merger consideration be in cash. Further, Cytyc also requested

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significant board representation and that Mr. Sullivan assume the chairmanship of the combined company's board of directors.

On April 30, 2007, at a special meeting of the board of directors of Hologic, the board of directors met with members of senior management and Brown Rudnick. During this meeting, senior management discussed its conversations with senior management of Cytyc and conversations between their respective investment bankers, and further discussed the amount and mix of cash and stock consideration to be offered to Cytyc stockholders. Following these discussions, the board of directors reaffirmed the authority of Mr. Cumming to continue to pursue the discussions with Cytyc.

On May 1, 2007, at the request of Hologic, Goldman Sachs contacted Morgan Stanley to offer 0.52 of a share of Hologic common stock and \$16.25 in cash for each share of Cytyc common stock as merger consideration in the proposed business combination.

On the afternoon of May 2, 2007, the finance committee of the Cytyc board of directors met in Boston, Massachusetts, together with members of Cytyc senior management and outside legal counsel. Representatives of Morgan Stanley, Cytyc's outside financial advisor, attended telephonically. Management updated the members of the committee on the status of discussions with Hologic and representatives of Morgan Stanley reported on certain preliminary financial analysis. Representatives of Hogan & Hartson discussed various legal issues with respect to the proposed transaction.

On the morning of May 3, 2007, the finance committee of the Cytyc board of directors met again in executive session to discuss the proposed transaction with Hologic. Later that morning, the full Cytyc board of directors met together with members of Cytyc senior management and outside legal and financial advisors. Management updated the Cytyc board of directors on the status of discussions with Hologic, including the proposed amount and mix of consideration to be offered to Cytyc stockholders, and the proposed governance and management of the combined company. Representatives of Morgan Stanley reported on certain preliminary financial analyses with respect to the proposed transaction based on the proposed amount and mix of cash and stock consideration to be offered to stockholders of Cytyc. Representatives from Hogan & Hartson discussed various legal issues with respect to the proposed transaction and reviewed the fiduciary duties applicable to the Cytyc board of directors in the context of the proposed transaction. Following questions and discussions among those in attendance, the Cytyc board of directors authorized Cytyc management to continue negotiations with Hologic and to work toward finalizing definitive terms regarding the potential transaction. Also, on May 3, 2007, the Cytyc board authorized Cytyc senior management to negotiate appropriate terms with Morgan Stanley and JP Morgan to serve as financial advisors to the board of directors in connection with the transaction, subject to review and approval of such arrangements by the board.

On May 4, 2007, further discussions were held between the members of the senior management teams of Hologic and Cytyc and representatives of Goldman Sachs and Morgan Stanley regarding the form and structure of a proposed business combination and to finalize the amount and value of the cash and stock components of the merger consideration. In these discussions, the parties agreed in principle that each share of Cytyc common stock would be converted into 0.52 of a share of Hologic common stock and \$16.50 in cash. During the course of these discussions, on May 4, 2007, a special meeting of the finance committee of the Cytyc board of directors was held and Mr. Sullivan discussed with Cytyc's directors the status of the negotiations between Cytyc and Hologic.

On May 4, 2007, at the direction of Hologic's board of directors, members of Hologic's senior management, together with representatives of Brown Rudnick, Goldman Sachs and representatives of Hologic's due diligence advisors, engaged by Hologic to assist with accounting, financial and tax due diligence, had a telephone conference call to discuss the possible business combination with Cytyc. During this conference call, the participants discussed the proposed timeline for the negotiation and completion of a definitive agreement, preliminary terms for the proposed transaction, including a preliminary agreement on the mix of stock and cash merger consideration to be offered to Cytyc stockholders, the proposed due diligence process, and Hologic's financing options.

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On May 6, 2007, outside legal counsel for Hologic and Cytyc had a telephone conference call to discuss timing, principal issues to be addressed in the merger agreement, and the due diligence process.

On May 7, 2007, senior management of Hologic, together with Brown Rudnick, Goldman Sachs, and representatives of Hologic's due diligence advisors, had a telephone conference call to discuss an internal draft of the merger agreement.

From May 7, 2007 through May 19, 2007, Mr. Sullivan and other members of Cytyc senior management discussed with individual members of the Cytyc board of directors on multiple occasions the status of negotiations with Hologic.

On May 8, 2007, senior management of Hologic and Cytyc together with their financial advisors met to conduct business due diligence.

On May 9, 2007, at a special meeting of the board of directors of Hologic, the board of directors of Hologic met together with members of senior management and Brown Rudnick and Goldman Sachs. Management updated the board of directors regarding the status of discussions with Cytyc, and reported on its initial due diligence investigation of Cytyc. Representatives from Goldman Sachs presented its preliminary financial analyses with respect to the proposed transaction, and possible financing alternatives for the proposed transaction. Representatives from Brown Rudnick and Goldman Sachs also reviewed and discussed with the board of directors the terms contained in a proposed initial draft of the merger agreement. The representative of Brown Rudnick also discussed with the Hologic board of directors the fiduciary duties of the Hologic board of directors applicable to the proposed transaction. After discussion, the board of directors authorized management to continue the discussions and negotiations with Cytyc. The board of directors also discussed and approved the engagement of Goldman Sachs as Hologic's financial advisor and to provide a fairness opinion in the transaction, and also discussed and authorized Hologic management to engage Jefferies to provide a second fairness opinion in the transaction.

On May 9, 2007, Hologic formally retained Goldman Sachs as an outside financial advisor, to advise Hologic in connection with this potential transaction.

On May 9, 2007, after the special meeting of Hologic's board of directors, Brown Rudnick distributed an initial draft merger agreement to Cytyc and its advisors. Later that day, outside legal counsel for Hologic and outside legal counsel for Cytyc discussed the principal terms proposed in the initial draft of the merger agreement, including the structure of the transaction, the merger consideration, corporate governance matters, board composition, deal protection provisions and break-up fees. Outside legal counsel also further discussed due diligence matters.

From May 9, 2007 through May 20, 2007, Cytyc, Hologic, their outside legal counsel and financial advisors continued to work to finalize the terms of the merger agreement and the related transaction documents, while continuing to conduct mutual financial, legal and other customary due diligence.

On May 11, 2007, at a special meeting of the board of directors of Hologic, the board of directors of Hologic met together with members of management and Brown Rudnick. During the meeting, management updated the board of directors on the status of the discussions with Cytyc regarding the merger agreement, including outstanding issues relating to corporate governance under the merger agreement, discussions with Cytyc's management regarding their continuing employment arrangements following the merger, and due diligence matters. Management also advised the board of directors of the status of the anticipated Goldman Sachs commitment for the financing for the proposed merger. Following these discussions the board of directors met in executive session with a representative of outside legal counsel. During the executive session representatives of Hologic's outside legal counsel further discussed with the directors their fiduciary duties.

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On May 14, 2007, at a special meeting of the board of directors of Hologic, the board of directors, together with members of senior management and Brown Rudnick, reviewed and discussed in detail the merger agreement, including outstanding issues that were being negotiated. These issues included matters relating to deal protection provisions, break-up fees, corporate governance and board composition matters, and employee matters, such as change of control agreements and retention agreements for certain employees of Cytyc.

On May 15, 2007, Hologic formally retained Jefferies as an outside financial advisor, to provide a second fairness opinion in connection with this potential transaction.

On May 15, 2007, Messrs. Cumming and Brady, met with Messrs. Sullivan and Levangie and Bradley Thomas, senior vice president of human resources and organizational development of Cytyc, to further discuss employee benefits, corporate governance and board composition matters, and change of control agreements for Messrs. Sullivan and Levangie and retention packages for various levels of Cytyc employees, including Messrs. Sullivan and Levangie, certain senior vice presidents of Cytyc and certain vice presidents of Cytyc. See Interests of Cytyc Executive Officers and Directors in the Merger commencing on page 95 for a further discussion of these agreements.

On May 15, 2007, at a special meeting of the board of directors of Hologic, the board of directors met with members of senior management and Brown Rudnick. During this meeting, management reviewed and discussed with the board of directors materials relating to the proposed financing for the proposed business combination. These discussions included a review of the proposed debt financing structure, sources and uses of funds, the combined company's anticipated debt service capabilities, the initial financing structure, an indicative term sheet, including proposed fees and rates, the proposed terms of a takeout financing structure and a proposed timeline. Management also further updated the board of directors on the status of the negotiations with Cytyc, including the status of ongoing negotiations regarding change of control and retention agreements for certain Cytyc employees.

Later in the day on May 15, 2007, Hologic received a draft financing commitment letter, engagement letter and fee letter relating the financing for the transaction. Senior management of Hologic and Brown Rudnick continued to negotiate the financing commitment letter, engagement letter and fee letter through May 19, 2007.

On May 16, 2007, Mr. Cumming and Mr. Sullivan agreed in principle on the governance structure for the combined company that would result from the proposed transaction, with the board of directors of the combined company to consist of six Hologic designees and five Cytyc designees. The parties also agreed in principle that at the effective time of the merger the standing committees of the board of directors of Hologic would include an audit, a compensation, a nominating and corporate governance and a corporate development committee. Each of the audit, nominating and corporate governance and corporate development committees would consist of an odd number of directors, consisting of one more continuing Hologic director than continuing Cytyc directors, and the chairman of each of these committees would be a continuing Hologic director. The compensation committee would consist of an even number of continuing Hologic directors and continuing Cytyc directors, and the chairman would be a continuing Cytyc director.

On May 16, 2007, at a special meeting of the board of directors of Hologic, the board of directors met with members of senior management, Brown Rudnick and Cooper & Dunham LLP, Hologic's separate intellectual property legal counsel. During this meeting, Cooper & Dunham LLP reported its due diligence findings. Following this report, Mr. Cumming discussed compensation matters relating to Hologic's management team in the context of the proposed business combination, including the proposed conditional waiver by himself and Messrs. Cascella and Muir of their change of control rights, and a proposed retention agreement for Mr. Cascella. See Interests of Hologic's Executive Officers and Directors in the Merger commencing on page 75 for a further discussion of these waivers and agreements.

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On May 18, 2007, at a special meeting of the board of directors of Hologic, the board of directors met with members of senior management, Brown Rudnick, and representatives of Hologic's due diligence advisors who had been conducting accounting, tax and other financial due diligence of Cytyc. During this meeting, representatives of Hologic's due diligence advisors discussed their due diligence report relating to accounting, tax and financial matters. Mr. Cumming and Brown Rudnick then further updated the board of directors on the status of the negotiations and outstanding issues on the merger agreement.

On May 19, 2007, at a special meeting of the board of directors of Hologic, the board of directors met with members of senior management and Brown Rudnick and financial advisors. At the meeting, Brown Rudnick and members of senior management presented their final due diligence findings to the board of directors. Hologic senior management also summarized with the board of directors the rationale, opportunities, benefits, prospects and risks associated with a potential transaction with Cytyc. Brown Rudnick also reviewed and discussed in detail the final merger agreement, including changes made in the merger agreement since the draft discussed in detail at the May 14, 2007 meeting of the board of directors, the proposed amendment to Hologic's certificate of incorporation to increase the number of authorized shares of common stock, the proposed amendments to Hologic's amended and restated bylaws, and the proposed amendment to Hologic's stockholder rights agreement. Mr. Muir and Brown Rudnick also reviewed and discussed the terms of the final financing commitment letter, including the terms and conditions and covenants associated with the contemplated financing, and the execution risk regarding the documentation of the loans.

At different times during the special meeting of the board of directors of Hologic, representatives of each of Goldman Sachs and Jefferies joined the meeting and reviewed their respective presentations with the board of directors of Hologic. At the conclusion of each of their respective presentations and responses to questions from the board of directors regarding their presentations, each of Goldman Sachs and Jefferies rendered to the Hologic board of directors its oral opinion (each of which opinions was later confirmed in writing), as described under Opinions of Financial Advisors to the Hologic Board of Directors that, as of the date of its opinion, and based upon and subject to the assumptions, procedures, factors, limitations and qualifications set forth in its opinion, the merger consideration to be paid for each outstanding share of Cytyc common stock, taken in the aggregate, to be paid pursuant to the merger agreement, was fair, from a financial point of view, to Hologic.

During the meeting, the board of directors of Hologic met in executive session with Brown Rudnick to further discuss the final merger agreement and the transactions contemplated by the merger agreement. The compensation committee of the Hologic board of directors also met to review and discuss the proposed employment arrangements with officers of Hologic and Cytyc in connection with the merger. After review and discussion, the compensation committee approved each of these employee related agreements contemplated by the merger agreement.

Following review and discussion among the members of the Hologic board of directors, including consideration of the factors described under Hologic Reasons for the Merger beginning on page 55, the Hologic board of directors unanimously determined that the transactions contemplated by the merger agreement, including the amendment to Hologic's charter to increase the number of authorized shares of Hologic common stock and the issuance of shares of Hologic common stock in the merger, are advisable and in the best interests of Hologic and its stockholders, and the Hologic directors voted unanimously to approve the merger and the merger agreement, resolved to recommend these and related matters to Hologic's stockholders for their approval and authorized Hologic's management to take certain actions to bring the transaction negotiations to a successful conclusion, including, without limitation, the execution and delivery of the financing commitment and transactions contemplated thereby.

On May 20, 2007, the Cytyc board of directors convened a special meeting with Cytyc senior management, Hogan & Hartson, Morgan Stanley and JPMorgan. Representatives of Cytyc senior management updated the Cytyc board on the status of discussions with Hologic and with respect to certain terms of the proposed merger agreement that had been finalized over the past several days. Cytyc senior management then discussed with the

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Cytc board the rationale, opportunities, benefits, prospects and risks associated with a potential transaction with Hologic based on the terms outlined in the proposed merger agreement. Representatives of each of Morgan Stanley and JPMorgan reviewed their respective presentations with the board of directors of Cytc. At the conclusion of each of their respective presentations and responses to questions from the board of directors regarding their presentations, each of Morgan Stanley and JPMorgan rendered to the Cytc board of directors its oral opinion (subsequently confirmed in writing) to the effect that, as of the date of its opinion, and subject to and based on the factors, assumptions, limitations and qualifications set forth in its opinion, the merger consideration to be received by the holders of Cytc common stock pursuant to the merger agreement was fair, from a financial point of view, to such holders. See Opinions of Financial Advisors to the Cytc Board of Directors. Members of senior management and representatives of Hogan & Hartson then provided the board of directors an overview of the due diligence review conducted with respect to Hologic by representatives of Cytc, financial and accounting advisors, and Hogan & Hartson, and discussed the results of such review. Representatives of Hogan & Hartson then summarized the terms of the merger agreement with Hologic and related documents, including those areas that had been finalized in the past several days, and also discussed fiduciary duties of the Cytc board of directors under the circumstances and the proposed amendment to the Cytc stockholder rights agreement. Following these discussions, and further review and discussion among the members of the Cytc board of directors, the Cytc board of directors unanimously determined that the transactions contemplated by the merger agreement and the merger are advisable and fair to and in the best interests of Cytc and its stockholders, and the Cytc directors voted unanimously to approve the merger and to approve and adopt the merger agreement and the transactions contemplated thereby, including the merger.

Following the approvals of the boards of directors of each of Hologic and Cytc, both companies executed the merger agreement and later that day issued a joint press release on May 20, 2007 announcing the transaction.

Hologic Reasons for the Merger

In reaching its decision to approve the merger agreement and recommend approval of an amendment to the Hologic charter to increase the number of authorized shares of common stock and the issuance of Hologic common stock in the merger, the Hologic board of directors consulted with Hologic's management, as well as with its legal and financial advisors, and considered a number of factors, including the following factors which the Hologic board of directors viewed as generally supporting its decision to approve the merger and the merger agreement and recommend that Hologic stockholders vote **FOR** the proposal to amend the Hologic charter to increase the number of authorized shares of Hologic common stock and **FOR** the proposal to issue shares of Hologic common stock in the merger.

Strategic Considerations. Hologic's board of directors considered a number of factors pertaining to the strategic rationale for the merger as supporting its decision to approve the merger, including the following:

the combined company will provide Hologic with a stronger financial base and a more diversified and balanced product portfolio while maintaining Hologic's focus on women's health;

the likelihood of the enhancement of the strategic position of the combined company, which combines Hologic's and Cytc's complementary businesses, and creates a broader company with enhanced operational and financial flexibility and increased opportunities for growth;

the combined company's complementary products and technologies position the combined company to offer a comprehensive product portfolio that addresses many screening and treatment needs for women. This product portfolio will enable the combined company to provide integrated solutions in screening, diagnostics and therapeutics for women's health, including breast cancer, cervical cancer, menorrhagia, pre-natal health, osteoporosis, endometriosis and permanent contraception;

the combined company will be able to offer an expanded product portfolio with over 90% of its total revenue from products that have leading market shares in the United States;

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the combined company will have a comprehensive sales and service organization exclusively focused on women's health in the diagnostic and medical technology industry in the United States, which is expected to significantly increase the combined company's presence in hospitals, private practices and healthcare organizations;

the combined company's integrated product offering and broader channel coverage should provide significant cross-selling opportunities across the organization, with increasing penetration of key customer segments, such as OB/GYNs and breast cancer treatment specialists;

the significantly greater scale and scope of the combined company's operations is expected to better enable the combined company to take advantage of growth opportunities and creates a strong platform for further expanding operations through product development and complementary strategic transactions;

the complementary nature of the businesses, the relative close proximity of the two companies and the strong executive teams with proven records of successfully executing strategic transactions, are expected to facilitate an efficient integration of the two companies;

the combined company's operations are expected to result in improved margins for Hologic;

the combination of the cross-selling opportunities, expanded international reach, and the penetration of new and existing markets are expected to enhance revenue growth;

the transaction is expected to generate annual cost savings from the enhanced efficiency of sales and marketing efforts, increased purchasing scale, sourcing and logistics efficiencies, and shared administrative services;

the transaction is expected to be accretive to Hologic's adjusted earnings per share in the first year after the transaction closes and significantly accretive thereafter; and

the transaction is expected to enable the combined company to generate significant cash flows, which should enable the combined company to rapidly repay indebtedness incurred in connection with the transaction and reduce the leverage of the combined company resulting from the transaction.

Other Factors Considered by the Hologic Board of Directors. In addition to considering the factors described above, the Hologic board of directors considered the following additional factors, all of which it viewed as supporting its decision to approve the merger:

the business, operations, financial condition, earnings and prospects of each of Cytac, Hologic and the combined company;

current and historical prices and trading information with respect to each of Cytac's and Hologic's common stock, which assisted the Hologic board of directors in its conclusion that the merger was fairly priced;

the fact that the merger consideration represented a premium to Cytac stockholders of approximately 33% based on the closing prices of each company's stock on the Nasdaq Global Select Market on May 18, 2007, the last trading day before the merger was publicly announced, and that the exchange ratio and cash merger consideration is fixed, which the Hologic board believed was

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consistent with market practice for mergers of this type and with the strategic purpose of the merger;

the expected qualification of the merger as a reorganization under Section 368(a) of the Code, as described in the section entitled Material United States Federal Income Tax Consequences of the Merger ;

the current and prospective competitive climate in the industries in which Hologic and Cytoc operate, including the potential for consolidation, and the alternatives reasonably available to Hologic if it did not pursue the merger;

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the expected benefits to customers and suppliers of Hologic and Cytyc, and the opportunities for the employees of the combined company;

the belief that the terms and conditions of the merger agreement are reasonable, including:

the fact that the representations and warranties and covenants are generally reciprocal;

the fact that the conditions to closing are limited;

the governance agreements with respect to the combined company post-merger, as further described under Board of Directors and Management of Hologic Following the Merger; Headquarters, including the fact that (i) Mr. John W. Cumming will serve as chief executive officer of the combined company; (ii) the Hologic board of directors will consist of six continuing Hologic directors and five continuing Cytyc directors; (iii) the audit, nominating and corporate governance and corporate development committees will consist of an odd number of directors, with one more continuing Hologic director than continuing Cytyc directors and each such committee will be chaired by a Hologic director, and the compensation committee will consist of an even number of continuing Hologic directors and continuing Cytyc directors and such committee will be chaired by a continuing Cytyc director; and (iv) the principal executive offices of the combined company will continue to be located in Bedford, Massachusetts;

the fact that Hologic is permitted to provide material non-public information to and engage in negotiations with a third party that makes an acquisition proposal that is or is reasonably likely to lead to a superior proposal (as described in The Merger Agreement Certain Covenants No Solicitation beginning on page 122), on the terms and subject to the conditions of the merger agreement;

the ability of Hologic, under certain circumstances, to terminate the merger agreement in order to enter into an alternative transaction that is deemed by the Hologic board of directors to be a superior proposal;

the fact that the merger agreement permits the Hologic board of directors, under certain circumstances, to change its recommendation with respect to the merger in response to a material development or change in circumstances occurring or arising after the date of execution of the merger agreement that was not known to the Hologic board of directors as of, or prior to, the date of execution of the merger agreement, provided that the change or development is not, and does not result from, a change in the market price of the common stock of Cytyc primarily as a result of the announcement of the merger agreement and the transactions contemplated thereby;

the circumstances under which the termination fees are payable by Hologic or Cytyc under the merger agreement and the view of the Hologic board of directors that these provisions should not preclude a bona fide alternative proposal involving Hologic;

the fact that the termination fee provisions are the product of negotiations; and

the fact that the size of the termination fees are reasonable in light of the size and benefits of the merger;

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the waivers executed by Messrs. Cumming, Cascella and Muir conditionally waiving certain change of control payments, the retention agreement to be entered into with Mr. Cascella, and the change of control agreements, retention and severance agreements and other similar retention arrangements to be offered to key employees of Cytac should assist the combined company in retaining key employees;

the fact that Hologic secured fully committed debt financing in the amount of approximately \$2.55 billion for the cash portion of the merger consideration, the repayment of existing debt and the expenses associated with the transaction and continued operations of the combined company;

the terms and conditions of the financing commitment letter, including the likelihood of completing the financing contemplated by the commitment letter on the anticipated schedule without significant risk;

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the financial analyses and presentations of each of Goldman Sachs and Jefferies, and their respective opinions, dated May 20, 2007, to the effect that, as of that date and based upon and subject to the assumptions, procedures, factors, limitations and qualifications set forth in their respective opinions, the merger consideration to be paid for each outstanding share of Cytyc common stock, taken in the aggregate, to be paid pursuant to the merger agreement, was fair, from a financial point of view, to Hologic. See Opinions of Financial Advisors to the Hologic Board of Directors beginning on page 62; and

the anticipated market capitalization, earnings and adjusted earnings per share and capital structure of the combined company. The Hologic board of directors weighed these advantages and opportunities against a number of other factors identified in its deliberations weighing negatively against the merger, including:

the possibility that the merger might not be completed or that completion might be delayed or subject to conditions that may be imposed by governmental authorities;

the challenges inherent in the combination of two businesses of the size and scope of Hologic and Cytyc and the possible diversion of management's attention for an extended period of time;

the risk that the combined company might not retain key employees despite its best efforts;

the risk of not capturing all the anticipated cost savings and operational synergies between Hologic and Cytyc and the risk that other anticipated benefits might not be realized;

regulatory and litigation risks associated with the transaction or with the combination of the two companies;

the fees and expenses associated with completing the merger and retaining key personnel;

risks associated with the incurrence of significant indebtedness to complete the merger, such as the increased leverage of the combined company and restrictions on operations of the combined company following the completion of the merger;

the fact that the stockholders of Hologic immediately prior to the merger will own approximately 45% of the combined company immediately following the merger (assuming conversion of all of Cytyc's outstanding 2.25% Senior Convertible Notes due 2024);

the fact that the merger is expected to have a dilutive effect on earnings per share of Hologic calculated in accordance with U.S. GAAP;

the fact that Hologic expects to incur additional charges related to write-offs in connection with in-process research and development;

the fact that upon termination of the merger agreement under specified circumstances, Hologic may be required to pay Cytyc a termination fee of either \$33 million or \$100 million depending on the termination event and this termination fee may discourage other parties that may otherwise have an interest in a business combination with, or an acquisition of, Hologic; and

the other risks of the type and nature described under Risk Factors , and the matters described under Cautionary Statement Regarding Forward-Looking Statements.

In view of the wide variety of factors considered in connection with its evaluation of the merger and the complexity of these matters, the Hologic board of directors did not find it useful and did not attempt to quantify or assign any relative or specific weights to the various factors that it considered in reaching its determination (i) to approve the merger agreement and the transactions contemplated thereby, and (ii) to recommend that Hologic stockholders vote **FOR** the proposal to amend the Hologic charter to increase the number of authorized shares of Hologic common stock and **FOR** the proposal to issue shares of Hologic common stock in

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the merger. In addition, individual members of the Hologic board of directors may have given differing weights to different factors. The Hologic board of directors conducted an overall analysis of the factors described above, including through discussions with, and questioning of, Hologic's management and outside legal counsel and financial advisors.

In considering the recommendation of the Hologic board of directors with respect to the proposal to amend the Hologic charter to increase the authorized shares of common stock and issue shares of Hologic common stock in the merger, you should be aware that certain Hologic directors and officers have arrangements that may cause them to have interests in the transaction that are different from, or are in addition to, the interests of Hologic stockholders generally. See "Interests of Hologic Executive Officers and Directors in the Merger" beginning on page 75.

Hologic's board of directors considered all these factors together and, on the whole, thought them to be favorable to and to support its determination to recommend approval by Hologic stockholders of the proposals necessary to complete the merger.

Recommendation of the Hologic Board of Directors

At its May 19, 2007 meeting, after due consideration with members of Hologic's senior management and Hologic's outside legal counsel and financial advisors, the Hologic board of directors unanimously determined that the merger agreement, and the transactions contemplated by the merger agreement, including the amendment to the Hologic charter to increase the number of authorized shares of common stock and the issuance of Hologic common stock in the merger, are advisable to and in the best interests of Hologic and its stockholders. Accordingly, the Hologic board of directors unanimously recommends to its stockholders that they vote **FOR** the proposal to amend the Hologic charter to increase the number of authorized shares of Hologic common stock, **FOR** the proposal to issue shares of Hologic common stock in the merger, **FOR** the approval of the Hologic, Inc. Senior Executive Short-Term Plan, **FOR** the approval of the amendment to Hologic's Seconded Amended and Restated 1999 Equity Incentive Plan and **FOR** the adjournment of the special meeting, including, if necessary, to solicit additional proxies in favor of any of the foregoing proposals.

Financing of the Merger

At the time Hologic signed the merger agreement, it entered into a commitment letter with Goldman Sachs Credit Partners L.P., dated as of May 20, 2007. The commitment letter was amended and restated on June 26, 2007 to include Banc of America Securities LLC, Bank of America, N.A., Banc of America Bridge LLC, Citigroup Global Markets Inc., JPMorgan Chase Bank, N.A. and J.P. Morgan Securities Inc. as additional arrangers of the financing. These arrangers, together with Goldman Sachs Credit Partners L.P., are referred to as the arrangers. Under the amended and restated commitment letter, referred to as the commitment letter, the arrangers have agreed to provide senior secured financing in an aggregate principal amount of up to \$2.55 billion to Hologic at or about the closing date of the merger. Hologic will use the proceeds of new senior secured credit facilities together with the combined company's available cash:

to pay the cash consideration of the merger totaling approximately \$2.1 billion;

to repay in full all borrowings outstanding, if any, and terminate all commitments under Cytoc's existing first lien senior secured credit facility;

to repay in full all borrowings outstanding, if any, and terminate all commitments under Hologic's existing senior secured revolving credit facility; and

to pay fees, commissions and expenses, estimated to be approximately \$100 million, incurred by the combined company in connection with the merger transaction.

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Hologic may also use the proceeds of the new senior secured credit facility, together with the combined company's available cash, to redeem all or a part of Cytac's outstanding \$250 million 2.25% Senior Convertible Notes due 2024, which have not been converted into Cytac common stock and which have been delivered to Cytac or Hologic for redemption.

The following is a summary of the material provisions of the proposed new credit facilities anticipated in connection with the commitment letter. The terms, conditions and covenants of the new credit facilities are subject to the negotiation, execution and delivery of definitive credit documents. Accordingly, some of the actual terms, conditions and covenants of the new credit facilities may differ in important respects from those we describe below.

Hologic Loan Parties. The commitment letter contemplates that Hologic will be the borrower under the new facilities and that all obligations under the facilities will be guaranteed by all domestic subsidiaries of Hologic, including Cytac and its subsidiaries, provided that neither immaterial subsidiaries of Hologic nor any subsidiary of Hologic that is a Massachusetts securities corporation will be a guarantor. Hologic and the subsidiary guarantors under the new facilities are referred to as the Hologic loan parties.

Credit Facilities. It is contemplated that Hologic will obtain up to \$2.55 billion principal amount of credit facilities on the closing date of the merger. The credit facilities to be obtained on the merger closing date will consist of:

a senior secured tranche A term loan facility, known as the term loan A facility, in a total principal amount of up to \$250 million;

a senior secured tranche B term loan facility, known as the term B loan facility, in a total principal amount of up to \$850 million;

a senior secured capital markets term loan, known as the term loan X facility, in a total principal amount of up to \$1.25 billion; and

a revolving credit facility in a total available principal amount of up to \$200 million, provided that no more than \$100 million of this facility may be drawn on the merger closing date.

It is contemplated that Hologic may elect, after the closing date and subject in certain circumstances to pro forma compliance by the Hologic loan parties with a specified ratio of total debt to adjusted consolidated EBITDA and other conditions, to increase, under terms and conditions to be determined, the total principal amount of borrowings available under the credit facilities by up to \$250 million. EBITDA means earnings before interest, taxes, depreciation and amortization.

Security. The commitment letter contemplates that the obligations of the Hologic loan parties under the credit facilities will be secured by first-priority liens on, and first-priority security interests in, substantially all of their assets and a first priority security interest in 100% of the capital stock of each guarantor, 65% of the capital stock of each of the first-tier foreign subsidiaries of Hologic (other than immaterial foreign subsidiaries) and all intercompany debt.

Maturity and Principal Payments. It is contemplated that the final maturity dates for the credit facilities will be as follows:

for the term loan A facility, 5 years after the merger closing date;

for the term B loan facility, 5.5 years after the merger closing date;

for the term loan X facility, 18 months after the merger closing date; and

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for the revolving loan facility, 5 years after the merger closing date.

It is contemplated that Hologic will be required to make scheduled principal payments under the term A loan facility in increasing amounts ranging from \$3.125 million per quarter on the first quarter following the merger closing date to \$9.375 million per quarter commencing the thirteenth quarter following the merger closing date, and under the term B facility, in equal quarterly installments of 0.25% of the total principal amount of the term loan B facility as of the merger closing date during the first 21 quarters after the merger closing date,

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with the remaining balance of each term loan facility due at the maturity of the applicable term loan facility. The revolving credit facility and the term loan X facility are contemplated to become due at maturity. It is not anticipated that any scheduled amortizations will be required under the revolving facility or the term loan X facility.

It is contemplated that Hologic will be required to make principal repayments first, pro rata among the term loan facilities and second to the revolving credit facility from specified excess cash flows from operations and from the net proceeds of specified types of asset sales, debt issuances, insurance recoveries and equity offerings, provided, however, that net proceeds from certain debt issuances and equity offerings are contemplated to be applied first to the term loan X facility until such facility is repaid in full.

It is contemplated that Hologic may voluntarily prepay any of the credit facilities without premium or penalty (other than applicable breakage costs related to interest on Eurodollar loans).

Interest Payments; Revolver Commitment Fee. It is contemplated that borrowings outstanding under the facilities will bear interest, at Hologic's option, at an annual rate equal to either:

a specified base rate plus a margin to be determined; or

a specified Eurodollar rate plus a margin to be determined.

It is contemplated that the margin applicable to loans under the revolving credit facility and the term loan A facility will be subject to specified changes based on certain changes in a specified leverage ratio to be negotiated.

It is contemplated that borrowings outstanding under the new credit facilities with reference to a base rate generally will be payable by Hologic on a quarterly basis. For credit facilities bearing interest with reference to Eurodollar rates, interest shall be payable on the last day of selected interest periods (which shall be one, two, three and six months and in certain circumstances, nine or twelve months) unless the interest period exceeds three months, in which case, interest will be due at the end of every three months.

It is contemplated that Hologic will pay a quarterly commitment fee, at an annual rate of 0.50%, on the undrawn commitments available under the revolving credit facility, subject to reduction based on a leverage ratio to be negotiated.

Covenants. The commitment letter contemplates that the new credit facilities will contain affirmative and negative covenants customarily applicable to senior secured credit facilities, including covenants restricting the ability of the Hologic loan parties, subject to negotiated exceptions, to:

incur additional indebtedness and additional liens on their assets;

engage in mergers or acquisitions or dispose of assets;

enter into sale-leaseback transactions;

pay dividends or make other distributions;

voluntarily prepay other indebtedness;

enter into transactions with affiliated persons;

make investments; and

change the nature of their businesses.

It is also contemplated that the new credit facilities will require the Hologic loan parties to maintain maximum leverage and interest coverage ratios.

Other Provisions. The commitment letter contemplates that the definitive loan documents will contain customary representations and warranties by the Hologic loan parties, as well as customary events of default,

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including an event of default upon a change of control of Hologic. Hologic expects that an event of default will occur under the new credit facilities if it or, in some circumstances, another Hologic loan party fails to make any payment when due, fails to comply with affirmative or negative covenants, makes a misrepresentation, defaults on other specified indebtedness, fails to discharge specified judgments, becomes subject to specified claims under ERISA, or becomes subject to specified events of bankruptcy. If an event of default occurs and is not cured within any applicable grace period or is not waived, the lenders would have the right to accelerate repayment of the indebtedness under the credit facilities to the extent provided in the credit documents and applicable law. If its indebtedness were accelerated, Hologic may not have sufficient funds to pay such indebtedness. In such event, Hologic's lenders would be entitled to enforce their security interests in the collateral securing the indebtedness, which will include substantially all of the assets of Hologic and its subsidiaries.

Anticipated Post-merger Refinancing. As soon as practicable after the effective time of the merger, Hologic intends to cause the combined company to seek to refinance a substantial portion of the debt incurred under the proposed new credit facilities with convertible debt or other equity or equity-linked financing, with reduced interest rates, extended maturity and limited or no restrictive or other financial covenants.

Opinions of Financial Advisors to the Hologic Board of Directors

Hologic retained Goldman Sachs and Jefferies as financial advisors to the Hologic board of directors in connection with the merger.

On May 19, 2007, at a meeting of the Hologic board of directors held to evaluate the proposed merger, each of Goldman Sachs and Jefferies delivered to the Hologic board of directors separate oral opinions, which opinions were confirmed by delivery of separate written opinions dated May 20, 2007, to the effect that, as of that date and based on and subject to the assumptions, procedures, factors, limitations and qualifications set forth in each such opinion, the merger consideration to be paid for each outstanding share of Cytoc common stock, taken in the aggregate, to be paid pursuant to the merger agreement, was fair, from a financial point of view, to Hologic.

Goldman Sachs and Jefferies' opinions dated May 20, 2007, the full texts of which describe the assumptions made, procedures followed, matters considered and qualifications and limitations on the review undertaken by Goldman Sachs and Jefferies, are attached hereto as Annex C and Annex D, respectively, and are incorporated into this joint proxy statement/prospectus by reference. Goldman Sachs and Jefferies' opinions were directed only to the fairness to Hologic, from a financial point of view, of the merger consideration provided for in the merger and do not address any other aspect of the merger. The opinions do not address the relative merits of the merger as compared to other business strategies or transactions that might be available with respect to Hologic or Hologic's underlying business decision to effect the merger. The opinions do not constitute a recommendation as to how any holder of Hologic common stock or Cytoc common stock should vote at any stockholders' meeting to be held in connection with, or take any action with respect to, the merger. Holders of Hologic common stock are encouraged to read the opinions carefully in their entirety. The summaries of Goldman Sachs and Jefferies' opinions described below are qualified in their entirety by reference to the full texts of the opinions.

Opinion of Goldman Sachs. At the special meeting of the Hologic board of directors on May 19, 2007, Goldman Sachs rendered its oral opinion, subsequently confirmed in writing, to the Hologic board of directors that, as of that date and based upon and subject to the assumptions, procedures, factors, limitations and qualifications set forth in such opinion, the merger consideration to be paid for each outstanding share of Cytoc common stock, taken in the aggregate, to be paid pursuant to the merger agreement, was fair, from a financial point of view, to Hologic.

The full text of the written opinion of Goldman Sachs, dated May 20, 2007, which sets forth the assumptions made, procedures followed, matters considered and qualifications and limitations on the

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review undertaken in connection with its opinion, is attached as Annex C to this joint proxy statement/ prospectus and is incorporated herein by reference. Hologic stockholders should read the opinion in its entirety. Goldman Sachs provided its opinion for the information and assistance of the Hologic board of directors in connection with its consideration of the merger. The Goldman Sachs opinion is not a recommendation as to how any holder of Hologic common stock or Cytyc common stock should vote at any stockholders meeting to be held in connection with, or take any action with respect to, the merger.

In connection with rendering the opinion described above and performing its related financial analyses, Goldman Sachs has reviewed, among other things:

the merger agreement;

annual reports to stockholders and annual reports on Form 10-K of Hologic and Cytyc for the five fiscal years ended on the Saturday closest to September 30, 2006 for Hologic, and December 31, 2006 for Cytyc;

certain interim reports to stockholders and quarterly reports on Form 10-Q of Hologic and Cytyc;

certain other communications from Hologic and Cytyc to their respective stockholders;

certain internal financial analyses and forecasts for Cytyc prepared by its management, as reviewed by the management of Hologic, and certain internal financial analyses and forecasts for Hologic prepared by its management and certain internal pro forma analyses and forecasts of Hologic and Cytyc prepared by the management of Hologic; and

certain cost savings and operating synergies projected by the respective managements of Hologic and Cytyc to result from the transaction.

Goldman Sachs also held discussions with members of the senior management of Hologic and Cytyc regarding their assessment of the strategic rationale for, and the potential benefits of, the transaction and the past and current business operations, financial condition, and future prospects of Hologic and Cytyc. In addition, Goldman Sachs reviewed the reported price and trading activity for the shares of Hologic common stock and the shares of Cytyc common stock, compared certain financial and stock market information for Hologic and Cytyc with similar information for certain other companies the securities of which are publicly traded, reviewed the financial terms of certain recent business combinations in the medical device and diagnostics industry specifically and in other industries generally, and performed such other studies and analyses, and considered such other factors, as it considered appropriate.

Goldman Sachs has relied upon the accuracy and completeness of all of the financial, accounting, legal, tax and other information discussed with or reviewed by it and assumed such accuracy and completeness for purposes of the opinion described above. Goldman Sachs assumed, with the consent of the Hologic board of directors, that the financial forecasts and the cost savings and operating synergies projected by Hologic and Cytyc, were reasonably prepared on a basis reflecting the then best currently available estimates and judgments of the management of Hologic and Cytyc. In addition, Goldman Sachs did not make an independent evaluation or appraisal of the assets and liabilities (including any contingent, derivative or off-balance-sheet assets and liabilities) of Hologic or Cytyc or any of their respective subsidiaries and no such evaluation or appraisal was furnished to Goldman Sachs.

Goldman Sachs opinion did not address the underlying business decision of Hologic to engage in the merger, nor did Goldman Sachs express any opinion as to the prices at which shares of Hologic common stock or Cytyc common stock will trade at any time. Goldman Sachs also assumed that all governmental, regulatory or other consents and approvals necessary for completion of the transaction will be obtained without any adverse effect on Hologic or Cytyc or on the expected benefits of the transaction in any way meaningful to its analysis. Goldman Sachs opinion is necessarily based on economic, monetary, market and other conditions as in effect on, and the information made available to Goldman Sachs as of, the date therein.

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Goldman Sachs advisory services and opinion were provided for the information and assistance of the Hologic board of directors in connection with its consideration of the transaction and its opinion did not constitute a recommendation as to how any holder of Hologic common stock should vote in respect of the transaction.

The following is a summary of the material financial analyses used by Goldman Sachs and presented to the board in connection with rendering the opinion described above. The following summary, however, does not purport to be a complete description of the financial analyses performed by Goldman Sachs, nor does the order of analyses described represent relative importance or weight given to those analyses by Goldman Sachs. Some of the summaries of the financial analyses include information presented in tabular form. The tables must be read together with the full text of each summary and are alone not a complete description of Goldman Sachs financial analyses. Except as otherwise noted, the following quantitative information, to the extent that it is based on market data, is based on market data as it existed on or before May 18, 2007 and is not necessarily indicative of current market conditions.

Cytc Implied Financial Analysis

Transaction Overview and Valuation Statistics. Goldman Sachs reviewed with the Hologic board of directors the basic structure of the transaction as described to Goldman Sachs by Hologic management, including the following:

consideration of \$16.50 and 0.52 shares of Hologic common stock for each share of Cytc common stock;

the implied offer price of \$46.46 per share (based on the May 18, 2007 closing price of Hologic's common stock of \$57.61); and

pro forma ownership, based on 132.4 million diluted shares of Cytc common stock outstanding, by current Hologic stockholders of approximately 45% of the combined company.

Goldman Sachs calculated for the Hologic board of directors various multiples and premiums resulting from the merger, based on information provided by Hologic management and Cytc management (as used herein, reference to information provided by Cytc management refers to such information as reviewed and adjusted by Hologic management). The following table presents the results of Goldman Sachs' calculations:

	Implied Transaction Multiples Without Synergies	Implied Transaction Multiples With Synergies (1)
FY 2008E EBITDA	16.3x	15.2x
FY 2009E EBITDA	13.3x	12.5x
FY 2008E Cash Net Income	28.6x	26.6x
FY 2009E Cash Net Income	22.8x	21.3x
FY 2008E GAAP Net Income	30.9x	28.5x
FY 2009E GAAP Net Income	24.5x	22.8x

(1) Potential cost synergies of \$25 million to \$30 million within two years, based on Hologic and Cytc management preliminary projections. *Comparable Trading Multiple Analysis.* Goldman Sachs reviewed and compared certain financial information of Cytc to corresponding financial information, ratios and public market multiples for these publicly traded companies in the medical device and specialized diagnostics industry:

Ventana Medical Systems, Inc.;

Hologic;

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Digene Corp.;

Immucor, Inc.;

Gen-Probe Inc.; and

American Medical Systems Holdings, Inc.

Although none of the selected companies is directly comparable to Cytyc, the companies included were chosen because they are publicly traded companies with operations that for purposes of analysis may be considered similar to certain operations of Cytyc.

Goldman Sachs calculated and compared various financial multiples and ratios for the selected companies and for Cytyc, based on financial data as of May 18, 2007, estimates for the selected companies from Institutional Brokerage Estimate System (IBES), and Cytyc management's projections of Cytyc as adjusted to Hologic's September fiscal year end. With respect to the selected companies and Cytyc, Goldman Sachs calculated enterprise value, which is the market value of common equity plus the estimated market value of debt less cash, as a multiple of 2007E and 2008E earnings before interest, taxes and depreciation and amortization (EBITDA). Goldman Sachs also calculated, based on fiscal year end Cytyc management projections adjusted to Hologic September fiscal year end, the implied transaction value multiples for 2007E and 2008E EBITDA (with and without synergies projected by Cytyc's and Hologic's respective managements). Goldman Sachs compared the multiples of the selected companies to the implied transaction multiples. The result of this analysis is summarized as follows:

Enterprise value as a multiple of:	Selected Companies Range	Implied Transaction Value Multiples	
		Without Synergies	With Synergies
2007E EBITDA	14.8x 28.9x	21.0x	20.3x
2008E EBITDA	11.7x 19.0x	16.3x	15.2x

With respect to the selected companies, Goldman Sachs also calculated the ratio of market price to earnings (P/E ratio) for 2007E and 2008E earnings (based on generally accepted accounting principles (GAAP) net income). Goldman Sachs compared the P/E ratios of the selected companies to the implied transaction value P/E ratios. With respect to Cytyc, Goldman Sachs calculated the implied transaction value P/E ratios for 2007E and 2008E earnings for:

projected GAAP net income;

cash net income without synergies; and

cash net income with synergies projected by Cytyc's and Hologic's respective managements.

Each of the implied transaction value P/E ratio calculations above was based on fiscal year end Cytyc management projections adjusted to Hologic's September fiscal year end. The result of this analysis is summarized as follows:

P/E ratio	Selected Companies Range	Implied Transaction Value P/E Ratios		
		GAAP Net Income	Cash Net Income Without Synergies	Cash Net Income With Synergies

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2007E	33.1x	39.2x	40.9x	37.3x	35.9x
2008E	19.2x	33.2x	30.9x	28.6x	26.6x

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Comparison of Selected Transactions. Goldman Sachs analyzed certain publicly available information relating to the following selected completed and pending transactions in the medical device and diagnostics industry since 1999:

Announcement Date		Buyer	Target
May 14, 2007		Cardinal Health, Inc.	