HOLOGIC INC Form S-4 June 29, 2007 Table of Contents

As filed with the Securities and Exchange Commission on June 29, 2007

Registration No. 333-

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form S-4

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

HOLOGIC, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware (State or Other Jurisdiction of

3844 (Primary Standard 04-2902449 (I.R.S. Employer

Incorporation or Organization)

Industrial Classification Code Number)
35 Crosby Drive, Bedford, Massachusetts 01730

 $Identification\ No.)$

Telephone: (781) 999-7300

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant s Principal Executive Offices)

Glenn P. Muir

Executive Vice President

Finance and Administration

35 Crosby Drive, Bedford, Massachusetts 01730

Telephone: (781) 999-7300

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent For Service)

Copies to:

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Senior Vice President,

General Counsel and Secretary

Cytyc Corporation

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and

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Washington, D.C. 2004

(617) 856-8200

(202) 637-5600

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

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

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

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

CALCULATION OF REGISTRATION FEE

		Proposed Maximum	Proposed Maximum	
Title of Each Class of	Amount	Offering	Aggregate	
Securities To Be Registered	To Be Registered(2)	Price Per Unit	Offering Price(3)	Amount of Registration Fee(4)
Common Stock, par value \$0.01 per share, and the associated preferred share purchase rights (1)	73,723,173	N/A	\$3,559,978,637	\$109,292

- (1) The preferred share purchase rights, which are deemed attached to the shares of Hologic common stock being registered hereunder, will be issued for no additional consideration. Accordingly, no additional registration fee is required.
- (2) Estimated based on the maximum number of shares of Hologic common stock to be issued in connection with the merger, calculated as the product of (i) 141,775,334, the sum of (A) 115,869,436, the aggregate number of shares of Cytyc common stock issued and outstanding as of May 31, 2007; (B) 17,479,878, the aggregate number of shares of Cytyc common stock issuable upon exercise of options and other equity-based awards outstanding as of May 31, 2007; and (C) 8,426,020, the aggregate number of shares of Cytyc common stock issuable upon conversion of all of Cytyc s 2.25% Senior Convertible Notes due 2024 outstanding as of May 31, 2007, and (ii) an exchange ratio of 0.52 of a share of Hologic common stock for each share of Cytyc common stock.
- (3) Pursuant to Rules 457(c) and 457(f) under the Securities Act of 1933 as amended, and estimated solely for purposes of calculating this registration fee, the proposed maximum offering price is equal to (i) \$5,899,271,648, the product of \$41.61, the average high and low prices per share of Cytyc common stock (the securities to be cancelled in the merger) on June 26, 2007, as quoted on the Nasdaq Global Select Market multiplied by 141,775,334 the maximum number of shares of Cytyc common stock which may be exchanged in the merger, including (A) 115,869,436 shares of Cytyc common stock issued and outstanding as of May 31, 2007; (B) 17,479,878 shares of Cytyc common stock issuable upon the exercise of options and other equity-based awards outstanding as of May 31, 2007; and (C) 8,426,020 shares issuable upon the conversion of all of Cytyc s 2.25% Senior Convertible Notes due 2024 outstanding as of May 31, 2007, less (ii) \$2,339,293,011, the aggregate amount of cash consideration to be paid by Hologic in the merger, assuming that all of the aforesaid shares of Cytyc common stock are exchanged for shares of Hologic common stock in the merger.
- (4) Reflects the product of (i) 0.00003070 multiplied by (iii) the proposed maximum aggregate offering price of Cytyc common stock.

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

Table of Contents

The information in this joint proxy statement/prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This joint proxy statement/prospectus is not an offer to sell and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

PRELIMINARY SUBJECT TO COMPLETION, DATED JUNE 29, 2007

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 [], 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 \$[].

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 25.

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

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 [], 2007 and, together with the accompanying proxy card, is first being mailed or otherwise distributed to stockholders of Hologic and Cytyc on or about [], 2007.

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 192. 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 [], 2007 in order to receive them before the Hologic special meeting.

Cytyc

Cytyc 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 Cytyc 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 Cytyc has filed with the SEC via the EDGAR system. Documents filed with the SEC by Cytyc also are available free of charge on the investor relations portion of the Cytyc website at www.cytyc.com. At the present time, Cytyc 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 Cytyc 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 Cytyc 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.

VOTING ELECTRONICALLY, BY TELEPHONE, BY MAIL OR IN PERSON

Hologic stockholders of record as of the close of business on [], 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.

Cytyc stockholders of record as of the close of business on [], 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 Cytyc stockholder may attend the Cytyc 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.

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

To Be Held On [], 2007

Dear Stockholder:

NOTICE IS HEREBY GIVEN that a special meeting of stockholders of Hologic, Inc. will be held on [], 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 Cytyc Corporation in connection with the merger contemplated by the Agreement and Plan of Merger dated as of May 20, 2007, among Hologic, Cytyc 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 Cytyc 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 Cytyc 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.

The close of business on [], 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 [], 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 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 25.

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

[], 2007

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

To Be Held On [], 2007

To the Stockholders of Cytyc Corporation:

Cytyc Corporation (Cytyc) is pleased to invite you to attend a special meeting of the stockholders of Cytyc which will be held on [], 2007 at [] a.m., local time, at The Hilton Boston Logan Airport, 85 Terminal Road, Boston, Massachusetts 02128 (the Cytyc special meeting).

The purpose of the Cytyc 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 Cytyc, 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 Cytyc will merge with and into MergerSub, with MergerSub continuing as the surviving corporation under the name Cytyc Corporation and as a wholly owned subsidiary of Hologic; and

if submitted to a vote of Cytyc stockholders, to approve an adjournment of the Cytyc 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 Cytyc 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 Cytyc and its stockholders, unanimously authorized, adopted and approved the merger agreement and the transactions contemplated thereby, including the merger, and 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 Cytyc special meeting, including, if necessary, to solicit additional proxies in favor of the adoption of the merger agreement.

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

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 Cytyc 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 25 of the joint proxy statement/prospectus.

Holders of Cytyc 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 Cytyc 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

[], 2007

TABLE OF CONTENTS

	Page
<u>QUESTIONS AND ANSWERS ABOUT THE MERGER</u>	1
SUMMARY	7
<u>The Companies</u>	7
Recent Developments	8
The Merger	9
Selected Historical Consolidated Financial Data of Hologic	17
Selected Historical Consolidated Financial Data of Cytyc	19
Summary Unaudited Pro Forma Financial Data	21
Equivalent and Comparative Per Share Information	22
Comparative Per Share Market Price and Dividend Information	23
RISK FACTORS	25
Risks Related to the Merger	25
Risks Related to Indebtedness of the Combined Company	29
Risks Related to Hologic, Cytyc and Combined Company	31
Risks Related to Hologic Common Stock	44
CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS	46
THE MERGER	47
Structure of the Merger	47
Merger Consideration	47
Background of the Merger	47
Hologic Reasons for the Merger	54
Recommendation of the Hologic Board of Directors	58
<u>Financing of the Merger</u>	58
Opinions of Financial Advisors to the Hologic Board of Directors	61
Interests of Hologic Executive Officers and Directors in the Merger	74
Cytyc Reasons for the Merger	79
Recommendations of the Cytyc Board of Directors	83
Opinions of Financial Advisors to the Cytyc Board of Directors	83
Interests of Cytyc Executive Officers and Directors in the Merger	94
Accounting Treatment	104
Board of Directors and Management of Hologic Following the Merger; Headquarters	104
Federal Securities Laws Consequences; Stock Transfer Restriction Agreements	105
Appraisal Rights	106
MATERIAL UNITED STATES FEDERAL INCOME TAX CONSEQUENCES OF THE MERGER	110
REGULATORY AND OTHER APPROVALS REQUIRED FOR THE MERGER	113
THE COMPANIES	114
<u>Hologic</u>	114
Nor easter Corp.	114
<u>Cytyc</u>	114
THE MERGER AGREEMENT	116
Explanatory Note Regarding Summary of Merger Agreement and Representations and Warranties in the Merger Agreement	116
Structure of the Merger	116
Merger Consideration	116
Exchange of Shares	117
<u>Fractional Shares</u>	117
Cytyc Stock Options, Restricted Stock Units, Performance Shares, Deferred Shares; Employee Stock Purchase Plan	117
Representations and Warranties	119
<u>Certain Covenants</u>	121
Corporate Governance and Other Matters.	126

Table of Contents

	Page
Conditions to Completion of the Merger	128
<u>Termination</u>	129
Termination Fees	131
Other Expenses	133
Amendments; Waivers	133
THE HOLOGIC SPECIAL MEETING	134
Date, Time and Place	134
Purpose of the Hologic Special Meeting	134
Board Recommendations	134
Hologic Record Date; Shares Entitled to Vote	135
Quorum Requirement	135
Stock Ownership of Hologic Executive Officers and Directors	135
Votes Required to Approve Hologic Proposals	135
Voting Procedures Stockholders of Record and Beneficial Owners	136
Voting of Proxies	137
Revocation of Proxies	138
Solicitation of Proxies	138
THE CYTYC SPECIAL MEETING	139
Date, Time and Place	139
Purpose of the Cytyc Special Meeting	139
Board Recommendations	139
Cytyc Record Date; Shares Entitled to Vote	139
Stock Ownership of Directors and Executive Officers	139
Quorum Requirement	139
Votes Required to Approve Cytyc Proposals	140
Voting of Proxies	140
Revocation of Proxies	141
Solicitation of Proxies	141
Householding	142
PROPOSAL TO ADJOURN CYTYC SPECIAL MEETING	142
HOLOGIC CHARTER AMENDMENT	143
Increase of Authorized Common Stock	143
APPROVAL OF THE HOLOGIC, INC. SENIOR EXECUTIVE SHORT TERM INCENTIVE PLAN	143
Summary of the STIP	144
AMENDMENT TO HOLOGIC S SECOND AMENDED AND RESTATED 1999 EQUITY INCENTIVE PLAN	145
Description of the Proposed Amendment	145
Description of the 1999 Plan	146
United States Federal Income Tax Consequences	150
Equity Compensation Plan Information	153
PROPOSAL TO ADJOURN HOLOGIC SPECIAL MEETING	155
HOLOGIC BYLAWS AMENDMENT	155
Board Composition	155
Board Committees	156
<u>Indemnification</u>	156
Chief Executive Officer	156
Chairman Emeritus	156
DESCRIPTION OF HOLOGIC CAPITAL STOCK	157
Authorized Capital Stock	157
Hologic Common Stock	157
Transfer Agent and Registrar	157
Stock Exchange Listing: Delisting and Deregistration of Cytyc Common Stock	157
COMPARISON OF STOCKHOLDER RIGHTS	158
UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION	174
LEGAL MATTERS	188
	100

Table of Contents

Page
189
190
190
191
192

-iii-

LIST OF ANNEXES

Annex A	Agreement and Plan of Merger
Annex B	Information about Cytyc, Cytyc Financial Statements and Adeza Financial Statements
Annex C	Opinion of Goldman, Sachs & Co.
Annex D	Opinion of Jefferies & Company, Inc.
Annex E	Opinion of Morgan Stanley & Co. Incorporated
Annex F	Opinion of J.P. Morgan Securities Inc.
Annex G	Section 262 of the General Corporation Law of the State of Delaware
Annex H	Amendment to Certificate of Incorporation of Hologic, Inc.
Annex I	Second Amended and Restated Bylaws of Hologic, Inc.
Annex J	Hologic, Inc. Senior Executive Short-Term Incentive Plan
Annex K	Amendment to Hologic s Second Amended and Restated 1999 Equity Incentive Plan

Table of Contents 16

-iv-

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 soutstanding 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.

1

- 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 Cytyc, 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 58, and for information about certain risks related to the financing, see Risk Factors Risks Related to Indebtedness of the Combined Company beginning on page 29.

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

A: Hologic and Cytyc 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 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. 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 110 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 Cytyc special meetings?
- A: *Hologic special meeting*. The Hologic special meeting will be held on [], 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.

Cytyc special meeting. The Cytyc special meeting will be held on [], 2007 at [] a.m., local time, at The Hilton Boston Logan Airport, 85 Terminal Road, Boston, Massachusetts 02128 to consider and vote on the proposals related to the merger.

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

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 Cytyc 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.

2

Table of Contents

- 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:

The affirmative vote of a majority of the outstanding shares of Cytyc common stock entitled to vote at the Cytyc 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 Cytyc special meeting, is required for stockholders to approve the proposal to adjourn the Cytyc special meeting.

3

0:	Who can	vote at the	Hologic :	snecial	meeting?
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- A: Hologic stockholders can vote at the Hologic special meeting if they owned shares of Hologic common stock at the close of business on [], 2007, the record date for the Hologic special meeting. As of the close of business on that day, [] 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 [], 2007, the record date for the Cytyc special meeting. As of the close of business on that day, [] 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:

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?
- 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.

4

O: What do I do if I want to change my vo	0:	What do	I do if I	want to	change	mv vo	te?
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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 138. 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 141.

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 on page 106 The Merger Appraisal Rights 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.

- 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.

5

Table of Contents

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 the third calendar quarter of 2007. See The Merger Agreement Conditions to Completion of the Merger beginning on page 128.
- 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

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

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

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 192. 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 114)

Hologic, Inc.

35 Crosby Drive

Bedford, MA 01730

(781) 999-7300

http://www.hologic.com1

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: Fluoroscan 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.

7

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

Nor easter Corp. (see page 114)

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.

Cytyc Corporation (see page 114)

Cytyc Corporation

250 Campus Drive

Marlborough, MA 01752

(508) 263-2900

http://www.cytyc.com²

Cytyc is a diversified diagnostic and medical device company that designs, develops, manufactures, and markets innovative and clinically effective diagnostic and surgical products. Cytyc 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.

Cytyc operates its business in three segments: domestic diagnostic products, domestic surgical products and international. Cytyc s domestic diagnostics products segment develops and markets the ThinPrep® System in the United States primarily for use in cytology testing applications focused on women s health, such as cervical cancer screening, as well as the FullTernThe Fetal Fibronectin Test and TLi_{IQ} ® Systems. Cytyc s domestic surgical products segment manufactures 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 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 diagnostic products segment and the domestic surgical products segment market these products in the United States. Cytyc s international segment markets its diagnostic and surgical products outside of the United States.

Recent Developments

On June 20, 2007, Hologic entered into a definitive agreement to acquire BioLucent, Inc. and its MammoPad breast cushion business. The purchase price for the transaction will be \$70 million (subject to adjustment), plus a two-year earn out. The closing consideration will consist of \$5 million in cash and an additional \$65 million payable, at the election of Hologic, in cash, shares of Hologic common stock or a combination thereof. The earn-out will be payable in two annual cash installments not to exceed \$15 million in the aggregate based upon BioLucent achieving certain revenue targets. This transaction is expected to close by the end of the third calendar quarter of 2007, after completion of a California fairness hearing, and will be subject to customary closing conditions, including BioLucent stockholder approval.

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

8

The Merger

The Agreement and Plan of Merger, dated as of May 20, 2007, among Hologic, Cytyc and Nor easter 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 116)

Subject to the terms and conditions of the merger agreement, at the effective time of the merger, Cytyc will merge 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 as a direct, wholly owned subsidiary of Hologic. At the effective time of the merger, Nor easter Corp. will be renamed Cytyc Corporation.

Merger Consideration (see page 116)

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 64.8 million shares of Hologic common stock to Cytyc stockholders in the merger based on the number of shares of Cytyc common stock outstanding on May 31, 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 118.6 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.

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;

9

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 134.

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 139.

Opinions of Financial Advisors (see pages 61 and 83)

Hologic (See page 61)

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 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 83)

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.

10

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 117)

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 74 and 94)

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.

Appraisal Rights (see page 106)

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 106 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 110)

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

11

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 110 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 104)

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 104, based upon the terms of the merger agreement and other factors, such as the composition of the combined company s board and senior management, 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.

Regulatory Approvals (see page 113)

Hologic and Cytyc 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 Cytyc 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. Based on the review and analyses performed, Hologic and Cytyc do not believe that any other antitrust related filings are required in any foreign jurisdictions. Although Hologic and Cytyc do not expect regulatory authorities to raise any significant objections in connection with their review of the merger, Hologic and Cytyc cannot assure you that they will obtain all required regulatory approvals or that these regulatory approvals will not contain terms, conditions or restrictions that would be detrimental to the combined company after the completion of the merger.

Listing of Hologic Common Stock (see page 127)

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.

12

Conditions to Completion of the Merger (see page 128)

The obligations of each of Hologic and Cytyc 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 Cytyc 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 Hart-Scott Rodino Antitrust Improvements Act of 1976, as amended, referred to as 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 Cytyc 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 Cytyc (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 Cytyc (the combined business to be taken as a whole); or (ii) otherwise have a regulatory material adverse effect as described in the merger agreement.

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 easter 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.

13

Termination of the Merger Agreement (see page 129)

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 131)

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 105)

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 105)

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.

Board of Directors and Corporate Governance After the Merger (see page 104)

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 155)

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 134)

Meeting. The Hologic special meeting will be held on [], 2007, at 9:00 a.m., local time, at Hologic sprincipal 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.

Record Date; Votes. Hologic has fixed the close of business on [], 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 [] 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 Cytyc 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 Cytyc 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 Cytyc 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 [], 2007, the Hologic record date, directors and executive officers of Hologic and their respective affiliates owned and were entitled to vote approximately [] shares of Hologic common stock, or approximately []% 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.

Cytyc Special Meeting (see page 139)

Meeting. The Cytyc special meeting will be held on [], 2007, at [] a.m., local time, at The Hilton Boston Logan Airport, 85 Terminal Road, Boston, Massachusetts 02128. At the Cytyc special meeting, Cytyc stockholders will be asked:

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

if submitted to a vote of Cytyc stockholders, to approve an adjournment of the Cytyc 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.** Cytyc has fixed the close of business on [], 2007 as the record date, which is referred to as the Cytyc record date, for determining the Cytyc stockholders entitled to receive notice of and to vote at the Cytyc special meeting. Only holders of record of Cytyc common stock on the Cytyc record date are entitled to receive notice of and vote at the Cytyc special meeting, and any adjournment or postponement thereof.

Each share of Cytyc common stock is entitled to one vote. On the Cytyc record date, there were [] 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 [], 2007, the Cytyc record date, directors and executive officers of Cytyc and their respective affiliates owned and were entitled to vote [] shares of Cytyc common stock, or approximately []% 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.

16

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 six months ended March 31, 2007 and March 25, 2006, and the selected balance sheet data as of March 31, 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 six months ended March 31, 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 March 31, 2007, which have been filed with the SEC and are incorporated by reference into this joint proxy statement/prospectus.

	Six Months Ended									
	March 31, 2007	March 25, 2006	September 30, 2006	Sept	tember 24, 2005	Sep	tember 25, 2004	Sep	otember 27, 2003	September 28, 2002
					(In thou	sands	, except per	share	data)	
Consolidated Statement of Income Data										
Revenues:										
Product sales	\$ 294,311	\$ 155,489	\$ 388,111	\$	229,075	\$	177,936	\$	156,734	\$ 144,684
Service and other revenue	49,988	33,452	74,569		58,609		50,769		47,301	45,508
	344,299	188,941	462,680		287,684		228,705		204,035	190,192
Costs and Expenses:										
Cost of product sales	125,938	74,106	186,862		116,478		94,762		86,506	84,230
Cost of product sales amortization of										
intangible assets	5,680	1,384	4,784		911		911		911	911
Cost of service and other revenue	54,777	34,731	77,502		58,181		48,574		43,949	34,146
Research and development	21,807	11,829	28,294		18,617		16,659		18,381	20,362
Selling and marketing	40,593	21,886	55,910		34,199		31,761		29,978	28,319
General and administrative	31,420	16,277	42,551		26,667		23,452		21,285	17,997
Amortization of acquired intangible										
assets	2,762	330	1,631							
Net gain on sale of intellectual property			(5,093)							
Acquired research and development		4,200	19,900							
Restructuring and relocation										2,070
	282,977	164,743	412,341		255,053		216,119		201,010	188,035

	Six Mont	ths Ended			ed		
	March 31, 2007	March 25, 2006	September 30, 2006	September 24, 2005	September 25, 2004	September 27, 2003	September 28, 2002
					usands, except per	share data)	
Income from operations	61,322	24,198	50,339	32,631	12,586	3,025	2,157
Interest income	777	2,273	4,082	2,219	540	685	573
Interest/other expense	(1,879)	9	(1,198)	(155)	(199)	(445)	(2,980)
Income (loss) before provision (benefit) for income taxes and cumulative effect of change in accounting principle Provision (benefit) for income taxes	60,220 22,500	26,480 9,600	53,223 25,800	34,695 6,439	12,927 763	3,265 176	(250) (429)
Income before cumulative effect of							
change in accounting principle	37,720	16,880	27,423	28,256	12,164	3.089	179
Cumulative effect of change in accounting principle	2.,		_,,,	-0,-00	,	(207)	
Net income	\$ 37,720	\$ 16,880	\$ 27,423	\$ 28,256	\$ 12,164	\$ 2,882	\$ 179

		Six Months Ended							Fiscal Years Ended					
		rch 31, 2007		rch 25, 2006		ember 30, 2006	Sept	2005	•	tember 25, 2004	•	tember 27, 2003	Sept	ember 28, 2002
Basic income per common and common equivalent share (1):								(III tiio)	usanu	s, except pei	r snare	e data)		
Income before cumulative effect of change in accounting principle	\$	0.71	\$	0.38	\$	0.59	\$	0.66	\$	0.30	\$	0.08	\$	0.00
Cumulative effect of change in accounting principle												(0.01)		
Net income	\$	0.71	\$	0.38	\$	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 Cumulative effect of change in	\$	0.69	\$	0.36	\$	0.56	\$	0.63	\$	0.29	\$	0.08	\$	0.00
accounting principle												(0.01)		
Net income	\$	0.69	\$	0.36	\$	0.56	\$	0.63	\$	0.29	\$	0.07	\$	0.00
Weighted average number of common shares outstanding (1):														
Basic		52,963		44,770		46,512		42,824		40,516		39,258		36,837
Diluted		54,578		44,073		48,620		45,126		42,593		40,261		38,383
Consolidated Balance Sheet Data (at period end)														
Working capital	\$ 1	73,277			\$ 1	15,743	\$	172,615	\$	118,238	\$	102,699	\$	97,738
Total assets	8	71,507			8	356,205		279,839		211,751		188,603		184,147
Line of credit						55,000								
Long-term debt		7,022				6,163				472		1,550		2,268
Total stockholders equity	6	58,257			6	605,750		217,834		166,275		148,927		142,409

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

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 income data for the three months ended March 31, 2007 and 2006, and the selected balance sheet data as of March 31, 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 three months ended March 31, 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.

Three Months

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.

	En	ded										
	Marc	ch 31,			Years							
	2007	2006	2006	2005	2004	2003		2002				
							-	(Restatement Adjustments)	(As Restated)			
	(In thousands, except per share amounts)											
Statement of (Loss) Income Data:												
Net Sales	\$ 168,884	\$ 140,540	\$ 608,250	\$ 508,251	\$ 393,593	\$ 303,060	\$ 236,493	\$	\$ 236,493			
Cost of Sales ⁽¹⁾	42,096	29,789	134,184	107,149	82,523	57,420	48,622		48,622			
Gross profit	126,788	110,751	474,066	401,102	311,070	245,640	187,871		187,871			
Operating Expenses:												
Research and development(1)	9,692	10,311	44,134	32,330	20,820	14,724	14,524		14,524			
Sales and marketing ⁽¹⁾	41,169	40,133	161,925	131,346	102,011	79,547	69,971		69,971			
General and administrative ⁽¹⁾	19,448	14,025	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	159,809	64,469	272,396	216,781	177,205	122,279	113,325	(17,205)	96,120			

Three Months Ended

	March 31, 2007 2006 2006				Years Ended Decem 2005 2004 2003						mber 31, 2002						
		2007		2000	2000		2003		2004		2003		(As		2002		
													eviously	•	statement ustments)		(As estated)
					(In	tho	ousands, ex	сер	t per shar	e a	mounts)						
(Loss) income from operations		(33,021)		46,282	201,670		184,321		133,865		123,361		74,546		17,205		91,751
Other income (expense), net ⁽⁶⁾		1,007		(39)	13,002		(5,603)		(3,468)		2,622		2,711				2,711
(Loss) income before provision for																	
income taxes		(32,014)		46,243	214,672		178,718		130,397		125,983		77,257		17,205		94,462
Provision for income taxes		19,195		16,879	75,135		65,232		56,809		49,763		29,363		3,699		33,062
Net (loss) income	\$	(51,209)		29,364	\$ 139,537	\$	113,486	\$	73,588	\$	76,220	\$	47,894	\$	13,506	\$	61,400
Net (loss) income per common and potential common share:																	
Basic	\$	(0.45)	\$	0.25	\$ 1.22	\$	1.00	\$	0.66	\$	0.69	\$	0.40	\$	0.11	\$	0.51
Diluted	\$	(0.45)	\$	0.24	\$ 1.16	\$	0.94	\$	0.63	\$	0.68	\$	0.39	\$	0.11	\$	0.50
Weighted average common and potential common shares outstanding:																	
Basic		114,725	1	115,481	114,009		113,528		111,148		110,983		120,114				120,114
Diluted		114,725	1	125,877	123,759		125,446		121,922		112,807		122,782				122,782
Balance Sheet Data:																	
Cash, cash equivalents and investment securities	\$	196,252			\$ 297,710	\$	220,619	\$	232,295	\$	177,897	\$	163,744	\$		\$	163,744
Total assets ⁽⁷⁾		1,448,252			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)		718,530			758,973		628,351		487,445		353,631		324,728		1,563		326,291

⁽¹⁾ During the three months ended March 31, 2007 and in fiscal year 2006, Cytyc incurred stock-based compensation expense under SFAS 123R (see Note 7 in the notes to the Cytyc condensed consolidated financial statements (unaudited) and Note 9 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).

- (3) Cytyc incurred a charge in connection with the DEKA Products Limited Partnership arbitration panel decision in the first quarter of 2005.
- (4) During the three months ended March 31, 2007, Cytyc 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) Cytyc incurred charges totaling approximately \$5.7 million in 2002 related to its terminated merger with Digene Corporation.

⁽²⁾ Cytyc incurred a charge during the fourth quarter of 2006 for severance resulting from its planned transition of its Mountain View, California operations to operations in Costa Rica and Massachusetts.

⁽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.

- (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-25 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.

20

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 six months ended March 31, 2007 reflect the merger as if it had occurred on September 25, 2005. The following unaudited pro forma balance sheet data at March 31, 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.

	Year Ended	Six Months Ended
Statement of Operations Data	September 30, 2006 (In thousands, ex	March 31, 2007 except per share data)
Revenue	\$ 1,184,573	\$ 701,791
Income from operations	\$ 136,672	\$ 105,003
Net income (loss)	\$ (13,717)	\$ 19,732
Net income (loss) per common and common equivalent share: Basic	\$ (0.12)	\$ 0.17
Diluted	(0.12)	0.17
Weighted average number of common shares outstanding:		
Basic	116,666	117,727
Diluted	116,666	119,342
		As of
Balance Sheet Data		March 31, 2007 (In thousands)
Working Capital		\$ 287,471
Total Assets		\$ 7,993,631
Long-term Debt		\$ 2,196,248
Stockholder s Equity		\$ 4,297,108

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 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:

	As o	As of and for		
	Fiscal Year Ended	Six Mo	nths Ended	
	September 30, 2006	Marc	h 31, 2007	
Basic Net Income (Loss) per Common Share	•			
Historical	\$ 0.59	\$	0.71	
Pro Forma	(0.12)		0.17	
Diluted Net Income (Loss) per Common Share				
Historical	\$ 0.56	\$	0.69	
Pro Forma	(0.12)		0.17	
Cash Dividends				
Historical	\$	\$		
Pro Forma				
Book Value per Common Share				
Historical	\$ 11.51	\$	12.23	
Pro Forma			36.23	
Cytyc Per Share Data:				

	As of and for				
	Fiscal Year Ended	Three M	ree Months Ended		
	December 31, 2006	Marc	Iarch 31, 2007		
Basic Net Income (Loss) per Common Share:					
Historical	\$ 1.22	\$	(0.45)		
Equivalent Pro Forma	(0.06)		0.09		
Diluted Net Income (Loss) per Common Share:					
Historical	\$ 1.16	\$	(0.45)		
Equivalent Pro Forma	(0.06)		0.09		
Cash Dividends					
Historical	\$	\$			
Equivalent Pro Forma					
Book Value per Common Share					
Historical	\$ 6.62	\$	6.24		
Equivalent Pro Forma			18.84		

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 (through June 27, 2007)	63.18	50.96
yc:		

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 (through June 27, 2007)	44.62	34.02

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 [], 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.

					Impl	ied Value	
	C	Cytyc		logic	of Cytyc		
	Comm	on Stock	Comm	on Stock	Com	non Stock	
May 18, 2007	\$	35.05	\$	57.61	\$	46.46	
[], 2007	\$	1	\$ [1	\$	[]	

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.

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 192 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.

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;

25

Cytyc.

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 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.

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 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.

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

27

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.

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

Table of Contents 58

28

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 \$1.35 billion under a 5.5 year senior secured tranche B term loan facility and approximately \$1.0 billion under an 18 month senior secured capital markets term loan facility. Additionally, Hologic will have the ability to incur up to \$200 million of additional indebtedness under its proposed new five year revolving credit facility, and 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 dependent upon the credit rating of the combined company. 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;

pay dividends and make distributions;

repurchase stock;

make certain investments;

29

create liens:

engage in transactions with affiliates;

merge with or acquire another company; and

transfer and sell assets.

The combined company s proposed new revolving credit facility is 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 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 58.

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.

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. 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.

31

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 Cytyc s recently completed acquisitions.

Hologic and Cytyc 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 Cytyc. 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;

Table of Contents 63

potential difficulties integrating financial reporting systems;

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

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 Cytyc paid for them;

32

Table of Contents

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.

Current levels of growth in the market for endometrial ablation procedures, such as Cytyc 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. Cytyc cannot predict when, or at what rate, this demand may stop or decline in growth. Cytyc 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.

33

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

The success of Cytyc 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, Cytyc 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 gonorrhea 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.

Cytyc 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.

Cytyc 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 Cytyc 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.

products or 510(k) notification.

Each of Hologic and Cytyc 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. Cytyc 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;
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

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.

34

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.

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 Cytyc 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 Cytyc 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, Cytyc 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 Cytyc s ThinPrep Imaging System. On June 17, 2003, TriPath announced that it had filed a lawsuit against Cytyc 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 Cytyc 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. A hearing occurred on August 2, 2006 in the United States District Court for the District of Massachusetts to hear oral arguments on summary judgment motions. Rulings on these motions are still pending. A trial is expected to occur beginning late October 2007. See Annex B under Information about Cytyc 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. 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. Cytyc assembles and manufactures its ThinPrep products at its facilities in Marlborough, Massachusetts and Londonderry, New Hampshire. In addition, Cytyc 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. 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 Suros 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 GliaSite 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.

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;

38

the timing and level of reimoursement for the combined company is 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. s may also cancel or reschedule shipments. Production difficulties could also delay shipments. Any of these factors also could harm the company of the production of the second production of the sec

Customer he combined company s business and prospects.

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 Cytyc 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

39

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 Cytyc 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 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.

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;

41

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

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

Hologic and Cytyc 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 Cytyc 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 Cytyc 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, Cytyc s or the combined company s products and technology. Competitors of the combined company may independently develop similar technology that Hologic s, Cytyc 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, Cytyc 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

42

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 Cytyc 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 Cytyc 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 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.

Cytyc 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 Cytyc 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 Cytyc 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 Cytyc 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, Cytyc 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 Cytyc, 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 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;

44

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.

45

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. 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.

likely,

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.

46

Table of Contents

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 117.

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.

47

Table of Contents

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 shealthcare 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.

48

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

49

Table of Contents

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 soutside 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.

50

Table of Contents

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.

51

Table of Contents

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 94 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 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 74 for a further discussion of these waivers and agreements.

52

Table of Contents

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 54, 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

53

Cytyc 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 Cytyc. 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 Cytyc 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 Cytyc 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 Cytyc 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 Cytyc, 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 Cytyc board of directors under the circumstances and the proposed amendment to the Cytyc stockholder rights agreement. Following these discussions, and further review and discussion among the members of the Cytyc board of directors, the Cytyc 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 Cytyc and its stockholders, and the Cytyc 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 Cytyc, 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 Cytyc 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;

54

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 Cytyc, Hologic and the combined company;

current and historical prices and trading information with respect to each of Cytyc 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 Cytyc 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

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 Cytyc operate, including the potential for consolidation, and the alternatives reasonably available to Hologic if it did not pursue the merger;

55

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 121), 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;

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 Cytyc 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;

56

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 61; 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

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 74.

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 savailable cash:

to pay the cash consideration of the merger totaling approximately \$2.05 billion;

to repay in full all borrowings outstanding, if any, and terminate all commitments under Cytyc 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;

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

for certain permitted acquisitions, working capital and general corporate purposes.

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

The following is a summary of the material provisions of the proposed new credit facilities as set forth in 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 Cytyc 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 B term loan facility, known as the term loan B facility, in a total principal amount of up to \$1.35 billion;

a senior secured capital markets term loan, known as the term loan X facility, in a total principal amount of up to \$1.0 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.

The commitment letter contemplates 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 \$1.0 billion, subject to reduction for up to \$500 million of prepayment of the term loan X facility. 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. The commitment letter contemplates that the final maturity dates for the credit facilities will be as follows:

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

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

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

The commitment letter contemplates that Hologic will be required to make scheduled principal payments under the term 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 with the remaining

59

Table of Contents

balance due at the maturity of the term loan B facility. The revolving credit facility and the term loan X facility are contemplated to become due at maturity. The commitment letter contemplates that no amortizations will be required under the revolving facility or the capital markets facility.

The commitment letter contemplates that Hologic will be required to make principal repayments first, pro rata to the term loan B facility and term loan X facility 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.

The commitment letter contemplates 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. The commitment letter contemplates 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 based on corporate family-corporate credit ratings; or

a specified Eurodollar rate plus a margin based on corporate family-corporate credit rating.

The margin applicable to loans under the revolving credit facility is subject to specified reductions based on certain reductions in a specified leverage ratio to be negotiated.

The commitment letter contemplates 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) unless the interest period exceeds three months, in which case, interest will be due at the end of every three months.

The commitment letter contemplates 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.

The commitment letter contemplates that, under the revolving credit facility, the Hologic loan parties will be required to maintain a maximum leverage ratio.

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,

60

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 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.

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 Cytyc 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 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 Goldman Sachs, dated May 20, 2007, which sets forth the assumptions made, procedures followed, matters considered and qualifications and limitations on the

61

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.

62

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.

Cytyc 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 Cytyc 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 Cytyc 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 Cytyc management (as used herein, reference to information provided by Cytyc 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 Cytyc management preliminary projections. *Comparable Trading Multiple Analysis*. Goldman Sachs reviewed and compared certain financial information of Cytyc 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;

63

Table	of	Contents
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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:

Implied Transaction Value Multiples
With

		Without	
Enterprise value as a multiple of:	Selected Companies Range	Synergies	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:

Implied Transaction Value P/E Ratios Cash Net

				Cash Net
		GAAP Net	Income Without	Income With
P/E ratio	Selected Companies Range	Income	Synergies	Synergies

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

64

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.	Viasys Healthcare Inc.
May 9, 2007	Inverness Medical Innovations, Inc.	Biosite Inc.
February 26, 2007	Cytyc	Adiana Inc.
February 12, 2007	Cytyc	Adeza Biomedical Corp.
January 29, 2007	MDS Inc.	Molecular Devices Corp.
January 18, 2007	General Electric Co.	Abbott Laboratories Diagnostics
January 8, 2007	Advanced Medical Optics, Inc.	IntraLase Corp.
October 9, 2006	Danaher Corp.	Vision Systems
August 14, 2006	Becton, Dickinson and Co.	TriPath Imaging, Inc.
June 29, 2006	Siemens AG	Bayer AG Diagnostics
June 5, 2006	American Medical Systems Holdings, Inc.	Laserscope
May 8, 2006	Thermo Electron Corp.	Fisher Scientific International Inc.
April 27, 2006	Siemens AG	Diagnostic Products Corp.
April 25, 2006	Millipore Corp.	Serologicals Corp.
April 24, 2006	Hologic	R2 Technology, Inc.
April 17, 2006	Hologic	Suros Surgical Systems, Inc.
March 27, 2006	Coloplast A/S	Mentor Corp. (Urology division)
December 16, 2005	Johnson & Johnson	Animas Corp.
March 7, 2005	Cytyc	Proxima Therapeutics, Inc.
November 9, 2004	Advanced Medical Optics, Inc.	VISX, Inc.
June 15, 2004	American Medical Systems Holdings, Inc.	TherMatrx, Inc.
March 1, 2004	Cytyc	Novacept, Inc.
December 16, 2002	American Medical Systems Holdings, Inc.	CryoGen, Inc.
December 16, 1999	American Medical Systems Holdings, Inc.	Influence, Inc.

Although none of the selected transactions or the companies party to the transactions is directly comparable to the merger or to Hologic or Cytyc, the above transactions were chosen because they involve transactions that, for purposes of analysis, may be considered similar to the merger and/or involve publicly traded companies with operations that, for purposes of analysis, may be considered similar to certain operations of Hologic and Cytyc.

For each of the selected transactions, Goldman Sachs calculated and, to the extent information was publicly available, compared enterprise value as a multiple of each of sales, EBITDA and earnings before interest and taxes (EBIT), in each case, on a GAAP net income basis and for the latest twelve months, or LTM, prior to the date that the merger was announced, and compared such multiples to the implied Cytyc transaction value multiples. The following tables present the results of this analysis:

		ed Transaction V Multiple of LTN	
Selected Transactions	Sales	EBITDA	EBIT
High	8.8x	42.5x	60.4x
Mean	4.8x	20.6x	29.6x
Median	4.5x	18.4x	27.5x
Low	2.0x	12.2x	13.9x
Implied Cytyc transaction value multiples (1)	9.0x	20.0x	26.7x

⁽¹⁾ Implied Cytyc transaction value as multiples of LTM Sales, EBITDA and EBIT are pro forma for historical acquisitions and one-time adjustments, based on information from Cytyc management.

Goldman Sachs also calculated the premiums paid based on the closing stock price of the target one day prior to the announcement of each transaction, and premium paid based on the closing stock price of the target one month prior to the announcement of each transaction or the undisturbed stock price in contested situations, and compared such premiums to the premium derived from the implied Cytyc transaction value multiples. The following tables present the results of this analysis:

Selected Transactions	Premium one day prior	Premium one month prior
High	117.4%	163.2%
Mean	46.7%	50.3%
Median	44.8%	43.6%
Low	5.6%	13.1%
Implied Cytyc transaction multiples (1)	32.5%	32.4%

⁽¹⁾ Implied Cytyc transaction value as multiples of LTM Sales, EBITDA and EBIT are pro forma for historical acquisitions and one-time adjustments, based on information from Cytyc management

Cytyc Discounted Cash Flow Analysis. Goldman Sachs performed a discounted cash flow analysis on Cytyc using the financial forecasts provided by Cytyc management. Goldman Sachs calculated implied net present values of projected free cash flows for Cytyc, as provided by Cytyc management, for the years 2007 through 2011 using discount rates ranging from 8.0% to 10.0% and using terminal values in the year 2011 based on forward after tax earnings before interest, taxes and amortization (EBITA) multiples ranging from 18.0x to 22.0x. These analyses indicated implied Cytyc equity value per share from \$50.38 to \$63.25 per share. In addition, for the benefit of Hologic management and the Hologic board of directors, Goldman Sachs ran a downside sensitivity case analysis based on a 9.0% discount rate and a 20.0x forward after tax EBITA multiple with a range of decrease in Cytyc margin from 0.0% to 4.0% and a range of decrease in Cytyc revenue growth between 0.0% to 6.0%, which analysis indicated implied Cytyc equity value per share from \$42.76 to \$56.65 per share.

Comparative and Contribution Analysis

Comparative Discounted Cash Flow Analyses. Goldman Sachs performed a comparative discounted cash flow analysis on Hologic and the combined company using the financial forecasts provided by Hologic management, Cytyc management and, in the case of the combined company, the savings from synergies and benefits projected by Hologic and Cytyc management to be realized following the merger.

Goldman Sachs calculated implied net present values of projected free cash flows for Hologic on a standalone and pro forma basis based on forecasts provided by Hologic management and Cytyc management, for the years 2007 through 2011 using discount rates ranging from 9.0% to 11.0% and using terminal values in the year 2011 based on forward after tax EBITA multiples ranging from 18.0x to 22.0x. Hologic management provided two alternative forecasts, management s base case and an upside sensitivity case (the primary difference of which is, for illustrative sensitivity purposes, increases in the compounded annual growth rates for revenue and improvements in the operating margins). Goldman Sachs calculated implied equity values per share without synergies for Hologic on a standalone and with and without synergies on a pro forma basis, based on Hologic management s and Cytyc management s preliminary estimates of synergies. The pro forma values exclude the impact of Hologic and Cytyc net operating losses, assume a mid-year convention and 37.0% tax rate, and are discounted to September 30, 2007. The pro forma discounted cash flow analysis assumes \$2.186 billion of pro forma net debt based on total cash financing needs and cash balances as of September 30, 2007, and 125.8 million pro forma fully diluted shares (including Hologic shares to be issued in a small, pending private acquisition).

The analysis based on the forecasts resulted in implied standalone Hologic equity value per share ranges ranging from \$45.68 to \$68.62. With respect to the combined company, the analysis resulted in implied pro forma equity value per share ranges ranging from \$54.73 to \$78.68 with synergies and \$52.38 to \$75.76 without synergies.

Illustrative Contribution Analysis. Goldman Sachs analyzed and compared the relative contributions to be made by each of Hologic and Cytyc, based on the forecasts of EBITDA and cash net income for fiscal years 2008 through 2011 provided by Hologic management and Cytyc management, for both the management base case and the upside sensitivity case and with and without synergies provided by Hologic management and Cytyc management preliminary estimates.

For comparison to the approximately 45% ownership that will be retained by Hologic in the combined company, Goldman Sachs calculated the implied percentage of equity for both Hologic and Cytyc based on their relative contribution to EBITDA and Cash Net Income by using Hologic s implied trading multiples for the alternative forecasts. Included in these analyses were potential cost synergies based on Hologic management s and Cytyc management s preliminary estimates. The following table presents the results of these analyses on a blended range basis:

	% Contr	ribution	Implied % Based on Current Multi Without S	Hologic Trading iples	Implied % Based on Current ' Multi With Sy	Hologic Frading ples
	FY 2008E High	FY 2011E Low	FY 2008E High	FY 2011E Low	FY 2008E High	FY 2011E Low
EBITDA	8		Š			
Hologic	36.9%	27.1%	53.6%	35.5%	50.7%	34.2%
Cytyc	72.9%	63.1%	64.5%	46.4%	65.8%	49.3%
Cash Net Income						
Hologic	45.0%	30.0%	58.9%	34.8%	55.1%	33.5%
Cytyc	70.0%	55.0%	65.2%	41.1%	66.5%	44.9%

The above analysis assumes equivalent multiples are applied to both Hologic and Cytyc. Goldman Sachs derived the implied equity value of the pro forma company by adjusting Cytyc s implied enterprise value for transaction debt of \$2.286 billion and cash of \$42 million. Each analyses also assumes that Hologic s equity value was \$3.283 billion as of May 18, 2007, that Hologic completes a small, pending private acquisition and assumes the pro forma capital structure as applied to Cytyc, which would result in an after tax pro forma interest expense deduction to Cytyc cash net income.

Pro Forma Analysis

Pro Forma Accretion/Dilution Analysis. Goldman Sachs compared, for each of the years 2008 and 2009, the forecast earnings per share, referred to as EPS, of Hologic, on a cash EPS and GAAP EPS standalone basis, in relation to the estimated GAAP EPS and the estimated cash EPS of the combined company, with and without synergies. In connection with the analysis, Goldman Sachs used EPS estimates under the forecast alternatives prepared by Hologic management and EPS estimates provided by Cytyc management. Goldman Sachs considered the potential cost synergies, based on Hologic management and Cytyc management preliminary estimates, and the 2008 figures included a \$10 million management retention expense as provided by Hologic management. The analysis indicated that, while the transaction would be meaningfully dilutive on a GAAP basis, it would be accretive on a cash EPS basis taking into account synergies. In addition, such analysis was based on preliminary purchase accounting assumptions reviewed with Goldman Sachs by Hologic management.

The preparation of a fairness opinion is a complex process and is not necessarily susceptible to partial analysis or summary description. Selecting portions of the analyses or of the summary set forth above, without considering the analyses as a whole, could create an incomplete view of the processes underlying Goldman Sachs opinion. In arriving at its fairness determination, Goldman Sachs considered the results of all of its analyses and did not attribute any particular weight to any factor or analysis considered by it. Rather, Goldman Sachs made its determination as to fairness on the basis of its experience and professional judgment after

Table of Contents

considering the results of all of its analyses. No company or transaction used in the above analyses as a comparison is directly comparable to Hologic or the contemplated transaction.

Goldman Sachs prepared these analyses for purposes of Goldman Sachs providing its opinion to the Hologic board of directors that, as of May 20, 2007 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 Cytyc common stock, taken in the aggregate, pursuant to the merger agreement was fair, from a financial point of view, to Hologic. These analyses do not purport to be appraisals nor do they necessarily reflect the prices at which businesses or securities actually may be sold. Analyses based upon forecasts of future results are not necessarily indicative of actual future results, which may be significantly more or less favorable than suggested by these analyses. Because these analyses are inherently subject to uncertainty, being based upon numerous factors or events beyond the control of the parties or their respective advisors, none of Hologic, Goldman Sachs or any other person assumes responsibility if future results are materially different from those forecast.

The merger consideration was determined through arm s-length negotiations between Hologic and Cytyc and was approved by the Hologic board of directors. Goldman Sachs provided advice to Hologic during these negotiations. Goldman Sachs did not, however, recommend any specific amount of consideration to Hologic or its board of directors or that any specific merger consideration constituted the only appropriate consideration for the merger.

As described above, the opinion of Goldman Sachs to the Hologic board of directors was one of many factors taken into consideration by the Hologic board of directors in making its determination to approve the transaction. The foregoing summary does not purport to be a complete description of the analyses performed by Goldman Sachs in connection with the fairness opinion and is qualified in its entirety by reference to the written opinion of Goldman Sachs attached as Annex C.

Goldman Sachs and its affiliates, as part of their investment banking business, are continually engaged in performing financial analyses with respect to businesses and their securities in connection with mergers and acquisitions, negotiated underwritings, competitive biddings, secondary distributions of listed and unlisted securities, private placements and other transactions as well as for estate, corporate and other purposes. Goldman Sachs has acted as financial advisor to Hologic in connection with, and has participated in certain of the negotiations leading to, the transaction contemplated by the merger agreement. In addition, Goldman Sachs has provided certain investment banking services to Hologic and Cytyc from time to time, for which Goldman Sachs has received, and may receive, compensation. Goldman Sachs also may provide investment banking services to Hologic in the future for which Goldman Sachs may receive compensation. In addition, Goldman Sachs expects that it and its affiliates will arrange and/or provide financing to Hologic specifically in connection with the transaction for additional compensation.

Goldman Sachs is a full service securities firm engaged, either directly or through its affiliates, in securities trading, investment management, financial planning and benefits counseling, risk management, hedging, financing and brokerage activities for both companies and individuals. In the ordinary course of these activities, Goldman Sachs and its affiliates may provide such services to Hologic, Cytyc and their respective affiliates, may actively trade the debt and equity securities (or related derivative securities) of Hologic and Cytyc for their own account and for the accounts of their customers and may at any time hold long and short positions of such securities.

The Hologic board of directors selected Goldman Sachs as its financial advisor because it is an internationally recognized investment banking firm that has substantial experience in transactions similar to the contemplated transaction. Pursuant to a letter agreement, dated May 8, 2007, Hologic engaged Goldman Sachs to act as its financial advisor in connection with the transaction. Pursuant to the terms of this letter agreement, Hologic has agreed to pay Goldman Sachs a transaction fee of \$16 million upon completion of the merger. In

68

addition, Hologic has agreed to reimburse Goldman Sachs expenses incurred in connection with this engagement and to indemnify Goldman Sachs and related persons against various liabilities, including certain liabilities under the federal securities laws.

Opinion of Jefferies. Jefferies was engaged to render an opinion to Hologic s board of directors as to whether the merger consideration to be paid by Hologic pursuant to the merger agreement is fair, from a financial point of view, to Hologic. On May 19, 2007, Jefferies delivered to the Hologic board of directors its oral opinion, subsequently confirmed in writing, that, as of the date of its opinion, based upon and subject to the assumptions, limitations, qualifications and factors contained in its opinion, the merger consideration to be paid by Hologic pursuant to the merger agreement is fair, from a financial point of view, to Hologic.

The full text of the written opinion of Jefferies is attached to this joint proxy statement/prospectus as Annex D and incorporated into this joint proxy statement/prospectus by reference. We urge you to read that opinion carefully and in its entirety for the assumptions made, procedures followed, other matters considered and limits of the review undertaken in arriving at that opinion.

Jefferies opinion is for the use and benefit of the Hologic board of directors in its consideration of the merger, and Jefferies opinion does not address the relative merits of the transactions contemplated by the merger agreement as compared to any alternative transaction or opportunity that might be available to Hologic, nor does it address the underlying business decision by Hologic to engage in the merger or the terms of the merger agreement or the documents referred to therein. Jefferies opinion does not constitute a recommendation as to how any holder of shares of Hologic common stock should vote on the merger or any matter related thereto. In addition, Hologic did not ask Jefferies to address, and Jefferies opinion does not address, the fairness to, or any other consideration of, the holders of any class of securities, creditors or other constituencies of Hologic. Jefferies expresses no opinion as to the price at which shares of Hologic common stock would trade at any time.

In arriving at its opinion, Jefferies, among other things:

- (i) reviewed a draft dated May 19, 2007 of the merger agreement;
- (ii) reviewed certain publicly available financial and other information about Hologic and Cytyc;
- (iii) reviewed certain information furnished to Jefferies by Hologic s management, including financial forecasts and analyses, relating to the business, operations and prospects of Hologic;
- (iv) reviewed certain information furnished to Jefferies by Cytyc s management and Hologic s management, including financial forecasts and analyses, relating to the business, operations and prospects of Cytyc;
- (v) held discussions with members of senior management of Hologic concerning the matters described in clauses (ii), (iii) and (iv) above;
- (vi) held discussions with members of senior management of Cytyc concerning the matters described in clause (ii) and (iv) above;
- (vii) reviewed certain publicly available information, including share trading price history and valuation multiples, of certain publicly traded companies that Jefferies deemed comparable to Cytyc;
- (viii) compared the proposed financial terms of the merger with the financial terms of certain other transactions that Jefferies deemed relevant; and

(ix) conducted such other financial studies, analyses, and investigations as Jefferies deemed appropriate.

In Jefferies review and analysis and in rendering its opinion, Jefferies assumed and relied upon, but did not independently investigate or verify, the accuracy and completeness of all financial and other information that was supplied or otherwise made available by Hologic or Cytyc or that was publicly available to Jefferies, or that was

69

Table of Contents

otherwise reviewed by Jefferies. In Jefferies review, Jefferies did not obtain any independent evaluation or appraisal of any of the assets or liabilities of, nor did Jefferies conduct a physical inspection of any of the properties or facilities of Hologic or Cytyc, nor was Jefferies furnished with any such evaluations or appraisals of such physical inspections, nor does Jefferies have any responsibility to obtain any such evaluations or appraisals.

With respect to the financial forecasts provided to and examined by Jefferies, Jefferies notes that projecting future results of Hologic and Cytyc is inherently subject to uncertainty. Hologic and Cytyc informed Jefferies, and Jefferies assumed, that such financial forecasts were reasonably prepared on bases reflecting the best currently available estimates and good faith judgments of the management of Hologic and Cytyc as to the future financial performance of Hologic and Cytyc, respectively. Jefferies expresses no opinion as to such financial forecasts or the assumptions on which they were made.

Jefferies made no independent investigation of any legal or accounting matters affecting Hologic or Cytyc, and assumed the correctness in all respects material to Hologic s analysis of all legal and accounting advice given to Hologic and its board of directors, including, without limitation, advice as to the legal, accounting and tax consequences of the terms of, and transactions contemplated by, the merger agreement to Hologic and its stockholders. In addition, in preparing its opinion, Jefferies did not take into account any tax consequences of the transaction to Hologic. Jefferies assumed that the final form of the merger agreement would be substantially similar to the last draft reviewed by Jefferies. Jefferies also assumed that in the course of obtaining the necessary regulatory or third party approvals, consents and releases for the merger, no delay, limitation, restriction or condition would be imposed that would have an adverse effect on Hologic, Cytyc or the contemplated benefits of the merger.

Jefferies opinion was based on economic, monetary, regulatory, market and other conditions existing and that could be evaluated as of the date of its opinion. Jefferies has no obligation to advise any person of any change in any fact or matter affecting its opinion of which Jefferies may have become aware of or of which Jefferies could become aware after the date of its opinion.

The following is a brief summary of the analyses performed by Jefferies in connection with its opinion. This summary is not intended to be an exhaustive description of the analyses performed by Jefferies but includes all material factors considered by Jefferies in rendering its opinion. Jefferies drew no specific conclusions from any individual analysis, but subjectively factored its observations from all of these analyses into its qualitative assessment of the merger consideration. Each analysis performed by Jefferies is a common methodology utilized in determining valuations. Although other valuation techniques may exist, Jefferies believes that the analyses described below, when taken as a whole, provide the most appropriate analyses for Jefferies to arrive at its opinion.

Comparable Public Company Analysis

Jefferies utilized comparable public company analysis, which values a target company by reference to publicly-traded companies with similar products, similar operating and financial characteristics and similar markets. Jefferies reviewed and compared selected financial data for six publicly traded companies chosen by Jefferies that were deemed to be comparable to Cytyc based on similar market capitalizations; revenue growth rates; gross margins and EBITDA (earnings before interest, taxes, depreciation and amortization) margins; similar business models; and participation in similar, high-growth medical device markets. The comparable companies chosen by Jefferies included:

Digene Corporation Gen-Probe Incorporated Inverness Medical Innovations, Inc. Meridian Bioscience, Inc. Quidel Corporation Ventana Medical Systems, Inc.

70

For each of the comparable companies, Jefferies calculated the ratios of the company s total enterprise value (TEV) as of May 18, 2007 to analyst estimates of that company s 2007 EBITDA. TEV was calculated as market capitalization, plus total debt, less cash and cash equivalents. Jefferies also calculated price-to-earnings ratio for each company by dividing each company s respective closing stock price on May 18, 2007 by (i) consensus analyst estimates of that company s 2007 and 2008 GAAP earnings per share (EPS), including the impact of stock option expenses, and (ii) analyst estimates of that company s 2007 and 2008 cash EPS, including the impact of stock option expenses. Jefferies used information available in publicly available research reports for estimated EBITDA, estimated GAAP EPS and estimated cash EPS.

Jefferies next calculated the corresponding implied multiples for Cytyc in the merger on the same basis, but defining equity market capitalization (for purposes of calculating TEV) as the \$46.46 proposed per share merger consideration multiplied by the sum of the number of diluted shares outstanding plus the additional shares that would be issued upon conversion of convertible notes. Such calculations consisted of the ratios of Cytyc s TEV (based on the \$46.46 proposed per share merger consideration) to Hologic management s projections of Cytyc EBITDA for the current fiscal year ending December 31, 2007. In addition, Jefferies calculated price-to-earnings ratios based on the \$46.46 proposed per share merger consideration to (i) Hologic management s projections of Cytyc GAAP earnings per share and cash earnings per share for the current fiscal year ending December 31, 2007; and (ii) Hologic management s projections of Cytyc GAAP earnings per share and cash earnings per share for the next full fiscal year ending December 31, 2008. Jefferies then compared such implied multiples for Cytyc in the merger to the multiples for the comparable companies.

The resulting multiples and implied multiples are set forth in the table below:

	High	Low			
	Comparable	Comparable	Mean Comparable	Median Comparable	Implied Multiple Cytyc at
Comparable Companies	Multiple	Multiple	Multiple	Multiple	\$46.46
1) Multiple of TEV/2007E EBITDA	29.6x	12.3x	18.4x	18.2x	19.0x
2) Multiple of Price/2007E GAAP Earnings	49.7x	23.0x	36.2x	36.8x	33.7x
3) Multiple of Price/2007E Cash Earnings	38.0x	22.1x	32.0x	34.5x	31.3x
4) Multiple of Price/2008E GAAP Earnings	34.3x	18.6x	26.0x	27.9x	26.1x
5) Multiple of Price/2008E Cash Earnings	33.4x	16.0x	24.7x	27.7x	24.2x

No company utilized in the comparable public company analysis is identical to Cytyc. Jefferies made judgments and assumptions with regard to industry performance, general business, economic, market and financial conditions, and other matters, many of which are beyond the control of Cytyc. Mathematical analysis of comparable public companies (such as determining means and medians) in isolation from other analyses is not an effective method of evaluating transactions.

Comparable Transaction Analysis

Jefferies utilized comparable transaction analysis, a method of valuing a business relative to recent merger and acquisition transactions involving similar businesses. Jefferies analyzed eleven previous outright acquisitions of small- and mid-cap public target companies and emerging growth private target companies with one or more of the following characteristics: market leader in high-growth niches of medical technology; focus on diagnostics and women s health; and strong strategic fit with the acquirer based on similar physician call point/complementary products. The comparable transactions chosen by Jefferies included:

Announcement Date	Acquirer	Target
April 4, 2007	Inverness Medical Innovations, Inc.	Biosite, Inc.
February 12, 2007	Cytyc Corporation	Adeza Biomedical Corp.
January 5, 2007	Advanced Medical Optics Inc.	IntraLase Corp.
August 14, 2006	Becton, Dickinson and Company	TriPath Imaging, Inc.
June 5, 2006	American Medical Systems Holdings	Laserscope
April 17, 2006	Hologic, Inc.	Suros Surgical Systems, Inc.
November 14, 2005	Allergan, Inc.	Inamed Corporation
March 18, 2005	Siemens Medical Solutions USA, Inc.	CTI Molecular Imaging, Inc.
February 9, 2005	Cytyc Corporation	Proxima Therapeutics, Inc.
November 9, 2004	Advanced Medical Optics, Inc.	VISX, Inc.
March 1, 2004	Cytyc Corporation	Novacept, Inc.

For each of these transactions, Jefferies initially calculated the ratios of the TEV of the transaction (based on the acquisition price) to the target company s EBITDA for the latest twelve month period (LTM) ended on the last day of the period covered by the target company s Form 10-K or Form 10-Q, as applicable, last filed prior to the announcement of the relevant transaction. In calculating such ratios, Jefferies calculated TEV of the transaction as the market value of the relevant target company s equity securities plus its indebtedness and minority interests less its cash and cash equivalents.

Jefferies also calculated the ratios of the total equity value in each comparable transaction to (i) estimates of GAAP earnings and cash earnings for the target company s then current fiscal year and (ii) the target company s next full fiscal year. The estimates used by Jefferies for each target company s forward earnings were available in publicly available research reports.

Jefferies next calculated corresponding implied multiples for Cytyc in the Merger. Such calculations consisted of the ratio of Cytyc s TEV (based on the \$46.46 proposed per share merger consideration) to Cytyc s EBITDA from March 31, 2006 to March 31, 2007. In addition, Jefferies calculated price-to-earnings ratios based on the \$46.46 proposed per share merger consideration to (i) Hologic management s projections of Cytyc GAAP earnings and cash earnings for the current fiscal year ending December 31, 2007; and (ii) Hologic management s projections of Cytyc GAAP earnings and cash earnings for the next full fiscal year ending December 31, 2008. Jefferies then compared such implied multiples for Cytyc in the merger to the multiples for the precedent transactions.

The following table sets forth Jefferies analysis:

	High	Low			
Comparable Transactions	Comparable Multiple	Comparable Multiple	Mean Comparable Multiple	Median Comparable Multiple	Implied Multiple Cytyc at \$46.46
Multiple of TEV /LTM EBITDA	29.4x	10.8x	22.5x	24.6x	24.5x
Multiple of Price/1-Year Forward Cytyc GAAP Earnings (12/31/07)			37.5x		
Lamings (12/31/07)	44.0x	32.8x		36.8x	33.7x
Multiple of Price/1-Year Forward Cytyc Cash Earnings (12/31/07)			36.8x		
Zatimigo (12/01/07)	41.4x	33.7x		35.9x	31.3x
Multiple of Price/2-Year Forward Cytyc GAAP Earnings (12/31/08)			31.8x		
Zarmings (12/5/1/00)	36.6x	28.1x		30.9x	26.1x
Multiple of Price/2-Year Forward Cytyc Cash Earnings (12/31/08)			30.6x		
	35.7x	26.7x		30.6x	24.2x

The transactions utilized in the comparable transaction analysis are not identical to the merger. In evaluating the transactions, Jefferies made judgments and assumptions with regard to industry performance, general business, economic, market and financial conditions and other matters, many of which are beyond the control of either Hologic or Cytyc. Mathematical analysis of comparable transaction data in isolation from other analyses is not an effective method of evaluating transactions.

Discounted Cash Flow Analysis

Jefferies utilized discounted cash flow analysis, which values a company as the sum of its unlevered (before financing costs) free cash flows over a forecast period and the company s terminal or residual value at the end of the forecast period. Jefferies examined the value of Cytyc based on projected free cash flow estimates, which were generated utilizing financial projections from June 30, 2007 through September 30, 2012 that were provided by Cytyc management and revised by Hologic management. A range of terminal values at September 30, 2011 was determined based on free cash flow in 2012 and applying perpetual growth rates from 5.0% to 6.0%, and discount rates of 11.5% to 12.5%. Jefferies selected its range of perpetual growth rates (5.0% - 6.0%) based on an average of growth rates over the long-term, which Jefferies deemed appropriate in light of projected above average growth in the near- and medium-term and an eventual maturing of the growth of free cash flows over the long-term.

Jefferies selected discount rates of 11.5% - 12.5% based on the Capital Asset Pricing Model, using a target capital structure for Cytyc. Based on the selected range of perpetual growth rates (5.0% - 6.0%) and discount rates (11.5% - 12.5%), Jefferies calculated implied Cytyc equity values per share ranging from \$42.39 to \$56.96 per share.

While discounted cash flow analysis is a widely accepted and practiced valuation methodology, it relies on a number of assumptions, including growth rates and discount rates. The valuation derived from the discounted cash flow analysis is not necessarily indicative of Cytyc s present or future value or results. Discounted cash flow analysis in isolation from other analyses is not an effective method of evaluating transactions.

Premiums Paid Analysis

Jefferies utilized premiums paid analysis, a method of valuing a target business by analyzing the premiums paid in selected merger and acquisition transactions. Using publicly available information, Jefferies conducted premiums paid analysis of 24 change of control transactions involving target companies in the medical device industry announced since January 13, 2004.

73

For each of the target companies involved in the 24 transactions, Jefferies examined the closing stock price one day prior to announcement of the relevant transaction in order to calculate the mean, median, minimum and maximum premiums paid by the acquirer over the target company s closing stock price at those points in time. Jefferies then compared those premiums to the premium implied by the \$46.46 proposed merger consideration over Cytyc s undisturbed stock price of \$35.05 on May 18, 2007, the date one trading day prior to the announcement of the merger. A summary of the one day premiums observed in this premiums paid analysis is set forth in the table below:

Premiums Paid	1-Day
Mean	33.0%
Median	25.3%
Maximum	120.8%
Minimum	5.1%
Proposed Merger Consideration (Cytyc)	32.6%

Conclusion

The preparation of a fairness opinion is a complex process and is not necessarily susceptible to partial analysis or summary description. In arriving at its opinion, Jefferies considered the results of all of its analyses as a whole and did not attribute any particular weight to any analysis or factor considered by it. Furthermore, Jefferies believes that selecting any portion of its analysis, without considering all analyses, would create an incomplete view of the process underlying its opinion.

In performing its analyses, Jefferies made numerous assumptions with respect to industry performance, and general business and economic conditions and other matters, many of which are beyond the control of Hologic and Cytyc. The analyses performed by Jefferies are not necessarily indicative of actual values or actual future results, which may be significantly more or less favorable than suggested by such analyses. Jefferies did not recommend any specific consideration to the Hologic board of directors or that any specific consideration constituted the only appropriate consideration with respect to the merger agreement and the transactions contemplated thereby, including the merger.

Miscellaneous

Pursuant to an engagement letter dated May 15, 2007, the Hologic board of directors agreed to cause Hologic to pay Jefferies a fee in connection with rendering its opinion to the Hologic board of directors that is customary for transactions similar to the merger, and such fee was paid upon delivery of Jefferies opinion. The Hologic board of directors also agreed to cause Hologic to reimburse Jefferies for its expenses incurred in connection with rendering its opinion to the Hologic board of directors and to indemnify Jefferies against liabilities arising out of or in connection with the services rendered by Jefferies in connection to its engagement by the Hologic board of directors.

Jefferies maintains a market in Hologic securities and, in the ordinary course of business, Jefferies and its affiliates may trade or hold such securities for their own account and the accounts of their customers and, accordingly, may at any time hold long or short positions in those securities. Jefferies may seek to, in the future, provide financial advisory and financing services to Hologic or entities that are affiliated with Hologic, for which Jefferies would expect to receive compensation.

Interests of Hologic Executive Officers and Directors in the Merger

In considering the recommendation of the Hologic board of directors with respect to the merger, Hologic stockholders should be aware that certain executive officers of Hologic and members of the Hologic board of directors may have interests in the transactions contemplated by the merger agreement that are different than, or

74

in addition to, the interests of the Hologic stockholders generally. The Hologic board of directors was aware of these interests and considered them, among other matters, in approving the merger and making its recommendation. These interests are summarized below.

Payments and Consideration to Executive Officers and Directors in Connection with the Merger.

Change of Control Agreements; Waivers. Each of Mr. John W. Cumming, Hologic s current chairman and chief executive officer, Mr. Glenn P. Muir, Hologic s current chief financial officer, Mr. Robert A. Cascella, Hologic s current president and chief operating officer, and Dr. Jay A. Stein, Hologic s current chairman emeritus and chief technical officer, have change of control agreements with Hologic, which provide that such officers are entitled to receive certain payments and benefits in connection with a change of control of Hologic. In addition, certain stock options and restricted stock unit award agreements for each of these officers provide that the officer s unvested options and restricted stock units accelerate upon a change of control, except for restricted stock unit awards granted as a part of such officer s existing retention and severance agreements.

In connection with entering into the merger agreement, each of Messrs. Cumming, Muir and Cascella agreed to waive, solely with respect to the change of control resulting from the merger, the change of control payment and special bonus they would have been entitled to receive under their respective change of control agreements and any accelerated vesting of the stock options and restricted stock units that were entitled to fully vest in connection with the merger. Each officer s waiver provides that if such officer is terminated by Hologic other than for cause or if the officer resigns for good reason before the second anniversary of the merger then the waiver is rescinded. In connection with any rescission of the waiver, a change of control is deemed to have occurred at the effective time of the merger and the officer is entitled to receive all payments and benefits under his change of control agreement and all unvested options and restricted stock units that absent such waiver would have vested at the effective time of the merger shall become vested. These waivers do not apply to any change of control that may occur with respect to Hologic other than the merger. The following table sets forth the payments and other benefits that each of Messrs. Cumming, Muir and Cascella have conditionally waived under their respective change of control agreements that would become payable if their employment were terminated within two years of the effective date of the merger under the circumstances described above.

Name and Principal Position	Cash Change in Control Payment (\$)(1)	Special Bonus(\$)	Number of Unvested Options that Would Vest and Become Exercisable (#)(3)	Value of Unvested Options that Would Vest and Become Exercisable (\$)(4)	Number of Unvested Restricted Stock Units that Would Vest(3)	Value of Unvested Restricted Stock Units that Would Vest (\$)(4)	Estimated Aggregate Dollar Value (\$)(5)
John W. Cumming	3,825,000	1,275,000	60,000	2,872,500	5,176	284,680	8,257,180
Chairman and Chief							
Executive Officer							
Robert A. Cascella	2,812,500	937,500	47,500	2,278,125	3,623	199,265	6,227,390
President and Chief							
Operating Officer							
Glenn P. Muir	2,325,000	775,000	35,000	1,675,625	3,106	170,830	4,946,555
Executive Vice President,							
Finance and Administration,							
Chief Financial Officer							

⁽¹⁾ Represents a lump sum payment in cash equal to the sum of the executive s annual base salary for fiscal 2007 plus the executive s highest annual bonus (as defined in the officer s change of control agreement), multiplied by three.

(2) Represents the sum of the executive s annual base salary plus the executive s highest annual bonus.

75

(3) All unvested stock options and restricted stock units, other than those restricted stock units issued in connection with the officer s retention and severance agreement, would vest in connection with a change of control. More detail relating to the number and exercise price of such stock options is as follows (assuming the merger has a closing date of September 1, 2007):

John W. Cumming: 60,000 options with an exercise price of \$7.125 per share.

Robert A. Cascella: 12,500 options with an exercise price of \$6.80 per share; and 35,000 options with an exercise price of \$7.125 per share.

Glenn P. Muir: 35,000 options with an exercise price of \$7.125 per share.

- (4) For purposes of the table set forth above, values are calculated (i) with respect to restricted stock units, by assuming that Hologic s common stock price at the effective time of the merger is \$55.00 per share and (ii) with respect to stock options, by subtracting the exercise price of the applicable stock option from the assumed \$55.00 per share stock price of Hologic s common stock at the effective time of the merger.
- (5) Amounts do not reflect any additional amounts paid to the executive which are necessary to pay any excise tax imposed upon the executive s change of control payments and benefits pursuant to Section 4999 of the Code.

Under the terms of Dr. Stein s change of control agreement he is entitled to a change of control payment in the amount of \$1,800,000, which is equal to his base salary plus his highest annual bonus (as defined in his change of control agreement), multiplied by three. As a result of the merger, Dr. Stein will also be immediately vested in outstanding, unvested stock options to purchase 10,000 shares of Hologic common stock (having a value of \$478,750, calculated by subtracting the exercise price of the stock options from an assumed \$55.00 per share stock price of Hologic s common stock price at the effective time of the merger) and 2,070 restricted stock units representing shares of Hologic common stock (having a value of \$113,850, calculated by assuming that Hologic s common stock price at the effective time of the merger is \$55.00 per share). In addition, on the one year anniversary of the merger, Dr. Stein is entitled to receive a special bonus if he remains employed by Hologic. The special one time bonus is \$600,000, which is equal to his then base salary plus his highest annual bonus. If Dr. Stein is terminated without cause or resigns for good reason prior to the one year anniversary of the merger, then Hologic is obligated to pay him the special bonus within thirty days of the termination date. Hologic is also obligated to gross up the amount paid Dr. Stein for excise taxes, if any, arising under Section 280G of the Code.

Non-Continuing Directors of Hologic. The compensation committee of the board of directors of Hologic approved certain benefits to be received at the effective time of the merger by those current independent directors of Hologic who will not continue as directors of Hologic following the merger. As of the date of this joint proxy statement/prospectus, the current independent directors of Hologic who will continue to serve as directors of Hologic following the merger have not been determined. Accordingly, the information provided below has been provided for each of the current independent directors of Hologic.

76

Stock Options Held by Non-Continuing Hologic Directors. Stock options to purchase shares of Hologic s common stock held by independent directors who will not continue as directors of Hologic following the merger will vest and become fully exercisable upon the effective time of the merger and will remain exercisable until December 2009. The table below sets forth the name of each current Hologic director and the number of options that would vest assuming that individual did not continue as a director of Hologic after the merger:

Number of Shares Underlying Stock

Name	Options that will Vest in connection with the Merger (1)
Laurie Fajardo(1)	48,000
Irwin Jacobs(2)	12,000
David LaVance, Jr.(3)	12,000
Arthur Lerner(4)	42,000
Nancy Learning(5)	22,000
Lawrence M. Levy(6)	38,000

- Consists of options to purchase 8,000 shares with an exercise price of \$47.28; and options to purchase 40,000 shares with an exercise price of \$48.17.
- (2) Consists of options to purchase 4,000 shares with an exercise price of \$37.92; and options to purchase 8,000 shares with an exercise price of \$47.28.
- (3) Consists of options to purchase 4,000 shares with an exercise price of \$37.92; and options to purchase 8,000 shares with an exercise price of \$47.28.
- (4) Consists of options to purchase 30,000 shares with an exercise price of \$18.475; options to purchase 4,000 shares with an exercise price of \$37.92; and options to purchase 8,000 shares with an exercise price of \$47.28.
- (5) Consists of options to purchase 10,000 shares with an exercise price of \$6.80; options to purchase 4,000 shares with an exercise price of \$37.92; and options to purchase 8,000 shares with an exercise price of \$47.28.
- (6) Consists of options to purchase 30,000 shares with an exercise price of \$37.92; and options to purchase 8,000 shares with an exercise price of \$47.28.

Director Fees for Non-Continuing Directors. The compensation committee of the board of directors of Hologic also determined to accelerate the annual fees that otherwise would have been payable through March 2008 to those independent directors of Hologic who will not continue as directors after the merger. Accordingly, upon the effective time of the merger, each independent director of Hologic who will not continue as a director of Hologic following the merger will be entitled to receive the full amount of any unpaid annual fees payable through March 2008 to Hologic s directors. The total amount of the annual fee payable to a director is \$60,000 plus \$7,500 for each chair of Hologic s compensation, audit and corporate development committees. Assuming an effective time of the merger on September 1, 2007, the unpaid amounts that will be paid to each independent director of Hologic assuming such director does not continue as a director of Hologic following the merger is as follows: Ms. Fajardo: \$30,000; Mr. Jacobs: \$30,000; LaVance: \$33,750; Dr. Lerner: \$30,000; Ms. Leaming: \$33,750; and Mr. Levy: \$33,750.

Continuing Hologic Directors. As described under Amendment to Hologic s Second Amended and Restated 1999 Equity Incentive Plan, each continuing Cytyc director that becomes an independent director of Hologic at the effective time of the merger will receive an automatic grant of options to purchase 50,000 shares of Hologic common stock pursuant to the terms of Hologic s Second Amended and Restated 1999 Equity Incentive Plan. In

77

Table of Contents

connection with entering into the merger agreement, the parties agreed to treat all independent directors who will serve as directors of Hologic on the effective time of the merger similarly. Accordingly, subject to discretion and approval of the compensation committee of the board of directors of Hologic, it is expected that each continuing Hologic director who is an independent director will be granted options to purchase 50,000 shares of common stock of Hologic under Hologic s Second Amended and Restated 1999 Equity Incentive Plan at the effective time of the merger.

The options to purchase 50,000 shares of Hologic common stock to be granted to all independent directors of Hologic at the effective time of the merger will become exercisable in 20% installments beginning on January 1 of the first year after the grant date, and on January 1 of each year thereafter, until such options are fully exercisable on January 1 of the fifth year following the grant. If the continuing Hologic directors receive their discretionary grant of options to purchase 50,000 shares of Hologic common stock, they have agreed to forego their automatic grant of options to purchase 8,000 shares of Hologic common stock that they would have otherwise received on January 1, 2008 pursuant to the terms of Hologic s Second Amended and Restated 1999 Equity Incentive Plan. The continuing Cytyc directors are not eligible for the automatic grant of options to purchase 8,000 shares under Hologic s Second Amended and Restated 1999 Equity Incentive Plan because such persons would not have been serving as a Hologic director for a period of six months before January 1, 2008.

Retention and Severance Agreements. In connection with Mr. Cascella s waiver described above, Hologic and Mr. Cascella also agreed to the principal terms of a three year retention agreement, which will become effective upon and is subject to the completion of the merger. Mr. Cascella s existing retention and severance agreement entered into in May 2006, will also remain in effect following the merger. Under the terms of the new retention agreement, Mr. Cascella will be entitled to a retention bonus in the amount equal to approximately \$2,000,000 payable 50% in cash and 50% in restricted stock units if he remains employed by Hologic for three years following the effective time of the merger. The payment will be accelerated if Hologic terminates Mr. Cascella without cause or if Mr. Cascella resigns for good reason prior to such date. Termination for cause requires that 75% of Hologic s independent directors determine that cause exists.

Other than as described above, no other employment arrangements with any Hologic executive officer were amended in connection with the merger agreement.

Board and Committee Composition of the Combined Company. Certain members of the Hologic board of directors will continue as directors of the combined company. As of the effective time of the merger, 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.

Hologic s audit, nominating and corporate governance and corporate development committees following the merger will each consist of an odd number of directors, consisting of one more continuing Hologic director than continuing Cytyc directors. The chairman of each of these committees will be a continuing Hologic director. The compensation committee of Hologic following the merger will consist of an even number of directors, consisting of an equal number of continuing Cytyc directors and continuing Hologic directors. The chairman of the compensation committee will be a continuing Cytyc director. See Board of Directors and Management of Hologic Following the Merger; Headquarters beginning on page 104.

Indemnification of Officers and Directors. In connection with entering into the merger agreement, Hologic s board of directors approved an amendment to the indemnification provisions contained in Hologic bylaws. Such amendment will become effective only upon the effective time of the merger. The amended Hologic bylaws provide that Hologic will indemnify any person who was or is or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative,

78

by reason of the fact that he is or was a director or officer of Hologic or, while a director or officer of Hologic, is or was serving at the request of Hologic as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust or other enterprise, including service with respect to an employee benefit plan, where the basis of such proceeding is alleged action in an official capacity as a director, officer, employee or agent, against all expense, liability and loss (including attorneys fees, judgments, fines, ERISA excise taxes or penalties and amounts paid in settlement) reasonably incurred or suffered by such person in connection with such proceeding. The amended bylaws also provide that Hologic will indemnify any person seeking indemnification in connection with a proceeding brought by that person only if the proceeding (or part thereof) was authorized by the Hologic board of directors. The current Hologic bylaws permit indemnification of officers and directors, but do not require Hologic to provide such persons with indemnification. Hologic has entered into indemnification agreements with each of its current directors and certain of its officers, which provide for mandatory indemnification, and has also agreed to enter into similar indemnification agreements with each of the directors of Cytyc who will become directors of Hologic at the effective time of the merger.

Cytyc Reasons for the Merger

At a meeting held on May 20, 2007, the Cytyc board of directors unanimously determined that the merger agreement and the transactions contemplated by the merger agreement were advisable and fair to and in the best interests of the Cytyc stockholders and approved and adopted the merger agreement and the transactions contemplated thereby, including the merger. In evaluating the merger, the Cytyc board of directors consulted with Cytyc s management, as well as with Cytyc s legal and financial advisors. In reaching its conclusion to approve the merger agreement and the transactions contemplated thereby, the Cytyc board of directors considered a variety of factors weighing favorably towards the merger, including, without limitation, the material factors listed below:

Strategic Considerations. The Cytyc board of directors considered a number of factors pertaining to the strategic rationale for the merger as supporting its decision to enter into the merger agreement, including the following:

the fact that the merger is a combination of two companies that will provide a strong financial base and a diversified product portfolio in the increasingly competitive women s healthcare marketplace;

the complementary aspects of the respective businesses of Cytyc and Hologic, creating the potential for the combined company to be a global leader in women s healthcare; the combined company will offer a product portfolio that meets many of a woman s screening and treatment needs throughout her life, including 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 are the leader in market share in the United States;

the combined company will have comprehensive sales coverage creating one of the largest sales and service organizations exclusively focused on women shealthcare in the diagnostic and medical technology industry in the United States with over 900 sales and service professionals in the United States;

the combined company will provide significant cross-selling synergies;

the combined company will have an enhanced international presence with direct operations in over 20 countries and a commercial presence in over 125 countries worldwide; and

the Cytyc board of directors belief that the combined company will provide significantly greater capabilities and competitiveness than Cytyc currently has on its own, including:

79

greater financial, research and development, and marketing resources to better serve its customers;

the acceleration of the introduction of new and improved products and services; and

greater ability to develop next-generation products and services.

Strategic Alternatives. The Cytyc board of directors considered the strategic alternatives to the merger available to Cytyc, including remaining a stand-alone entity and pursuing acquisitions of strategic assets and alternative acquisition candidates, and the determination of the Cytyc board of directors that a combination with Hologic is expected to yield greater strategic benefits than other reasonably likely alternatives because of the factors described above in Strategic Considerations.

Financial Considerations. The Cytyc board of directors considered a number of financial factors pertaining to the merger as supporting its decision to enter into the merger agreement, including the following:

the financial performance and condition, business operations and prospects of each of Cytyc, Hologic and the combined company;

that Cytyc stockholders will own approximately 55% of the combined company s outstanding shares immediately after the effective time of the merger (assuming conversion of all of Cytyc s outstanding 2.25% Senior Convertible Notes due 2024), which will allow Cytyc stockholders to participate in all of the benefits of the combined company, including future growth and expected synergies of the combined company while retaining the flexibility of selling all or a portion of those shares for cash into a very liquid market at any time;

the financial terms of the transaction, including the fixed exchange rate of 0.52 of a share of Hologic common stock for each share of Cytyc common stock and the payment of \$16.50 in cash per share of Cytyc common stock to be paid in connection with the merger. Based upon Hologic s closing stock price of \$57.61 per share on May 18, 2007 (the last trading day before the merger agreement was announced), the transaction represented a purchase price of \$46.46 per share of Cytyc common stock or a 32.5% premium to the Cytyc common stock closing price on May 18, 2007 and representing premiums of 36.9%, 32.2%, 38.2%, 50.1% and 67.0% over the average closing share price during the 15-day, 1-month, 3-month, 6-month and 1-year periods ended May 18, 2007, respectively;

the expected merger benefits estimated to be more than \$75 million in anticipated synergies primarily from cross-selling opportunities and \$25 million in annual cost savings. See Cautionary Statement Regarding Forward-Looking Statements and Risk Factors beginning on pages 46 and 25, respectively;

the opportunity for Cytyc stockholders to benefit from any increase in the trading of Hologic common stock between announcement of the merger and the closing of the merger;

the expectation that the merger would allow the combined company to generate significant cash flows;

the expectation that the merger would be accretive to the adjusted earnings per share of the combined company beginning in fiscal year 2008;

that the merger is expected to result in a 20% annual revenue growth rate and 20% growth rate in adjusted earnings per share (excluding the write-off and amortization of acquisition-related intangible assets and related tax effect) in future years; and

the fact that Hologic has secured fully committed debt financing for the approximately \$2.2 billion cash portion of the merger consideration.

80

Governance Considerations. The Cytyc board of directors considered a number of governance factors pertaining to the merger as supporting its decision to enter into the merger agreement, including the following:

the fact that the board of directors of the combined company would be comprised of eleven directors, including five designees from Cytyc (including the chief executive officer of Cytyc) and six designees from Hologic;

the fact that Patrick J. Sullivan will become chairman of the combined company;

the fact that, while the combined company s headquarters would be located in Bedford, Massachusetts, the headquarters of the Cytyc business would continue to be located in Marlborough, Massachusetts; and

the strong management team to be drawn from both Cytyc and Hologic that will manage the combined company, the complementary cultural fit and organizational structure of both companies and the demonstrated ability of both management of Cytyc and management of Hologic to integrate and obtain benefits from previous business combinations.

Tax Considerations. The Cytyc board of directors considered the ability to complete the merger as a reorganization for U.S. federal income tax purposes with the Cytyc stockholders being taxed on an amount not to exceed the cash portion of the merger consideration that they receive.

Opinions of Financial Advisors. The Cytyc board of directors considered Morgan Stanley s and JPMorgan s separate opinions, each dated May 20, 2007, to Cytyc s board of directors as to the fairness, from a financial point of view and as of the date of the opinion, of the merger consideration to be received by Cytyc stockholders pursuant to the merger agreement, as more fully described in Opinions of Financial Advisors to the Cytyc Board of Directors beginning on page 83.

Terms of the Merger Agreement. The Cytyc board of directors considered that the terms of the merger agreement are reasonable, including:

the merger agreement permits Cytyc 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 121), on the terms and subject to the conditions of the merger agreement;

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

the merger agreement permits the Cytyc 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 Cytyc 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 Hologic primarily as a result of the announcement of the merger agreement and the transactions contemplated thereby;

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

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

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

81

the circumstances under which the Hologic termination fees are payable to Cytyc under the merger agreement; and

the fact that the representations, warranties and covenants of Cytyc and Hologic are generally reciprocal.

Regulatory Approvals. The Cytyc board of directors considered the regulatory approvals required to complete the merger, including expiration or termination of any waiting period or extension thereof under the HSR Act, and the belief of Cytyc s management that the merger would be approved by the requisite authorities, without the imposition of conditions sufficiently material to preclude or materially diminish the benefits expected from the merger, and would otherwise be completed in accordance with the terms of the merger agreement.

Due Diligence. The Cytyc board of directors considered the results of Cytyc s due diligence review of Hologic. The Cytyc board of directors weighed the aforementioned material factors against a number of other factors identified in its deliberations that weighted negatively against the merger, including, without limitation, the following material factors:

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

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

because the exchange ratio is fixed, in the event of a decrease in the price of Hologic common stock between the date of execution of the merger agreement and the closing of the merger, Cytyc stockholders may receive less value for their shares upon the closing of the merger than calculated pursuant to the exchange ratio on the date of execution of the merger agreement and on the date of the Cytyc special meeting;

certain provisions of the merger agreement that could have the effect of discouraging proposals for alternative transactions involving Cytyc, including:

the restrictions on Cytyc s ability to solicit proposals for alternative transactions involving Cytyc; and

that Cytyc may be required to pay to Hologic a termination fee of either \$50 million or \$150 million depending upon the termination event:

the fees and expenses associated with completing the merger;

the risk that the merger may not be completed despite the parties efforts or that the closing may be unduly delayed and the effects on Cytyc as a stand-alone company because of such failure or delay; and

the other risks described in Risk Factors beginning on page 25.

After consideration of these factors, the Cytyc board of directors determined that these risks could be mitigated or managed by Cytyc or Hologic or by the combined company following the merger, were reasonably acceptable under the circumstances or, in light of the anticipated benefits, the risks were unlikely to have a materially adverse impact on the merger or on the combined company following the merger, and that, overall, these risks were significantly outweighed by the potential benefits of the merger.

Although this discussion of the information and factors considered by the Cytyc board of directors is believed to include the material factors considered by the Cytyc board of directors, it is not intended to be exhaustive and may not include all of the factors considered by the Cytyc board of directors. In reaching its determination to approve and recommend the merger and the merger agreement, the Cytyc board of directors did

82

not quantify or assign any relative or specific weights to the various factors that it considered in reaching its determination that the merger and the merger agreement are advisable and fair to and in the best interests of Cytyc and its stockholders. Rather, the Cytyc board of directors based its position and recommendation on the totality of the information presented to and factors considered by it. In addition, individual members of the Cytyc board of directors may have given differing weights to different factors.

In considering the recommendation of the Cytyc board of directors with respect to the merger and the merger agreement, you should be aware that certain Cytyc 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 Cytyc stockholders generally. See Interests of Cytyc Executive Officers and Directors in the Merger beginning on page 94.

Recommendations of the Cytyc Board of Directors

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 the Cytyc stockholders and unanimously recommends that the Cytyc stockholders vote **FOR** the proposal to adopt the merger agreement and the transactions contemplated thereby, including the merger, and **FOR** the proposal to adjourn the Cytyc special meeting, including, if necessary, to solicit additional proxies in favor of such adoption.

Opinions of Financial Advisors to the Cytyc Board of Directors

Cytyc has retained Morgan Stanley and JPMorgan as its financial advisors in connection with the merger.

On May 20, 2007, at a meeting of the Cytyc board of directors held to evaluate the proposed merger, Morgan Stanley and JPMorgan delivered to the Cytyc board of directors separate oral opinions, which opinions were confirmed by delivery of separate written opinions each dated May 20, 2007, to the effect that, as of that date and based on and subject to various assumptions, matters considered and limitations described in such opinions, 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.

Morgan Stanley s and JPMorgan s opinions, the full texts of which describe the assumptions made, procedures followed, matters considered and limitations on the review undertaken by Morgan Stanley and JPMorgan, are attached hereto as Annex E and Annex F, respectively, and are incorporated into this joint proxy statement/prospectus by reference. Morgan Stanley s and JPMorgan s opinions were directed only to the fairness, from a financial point of view, of the merger consideration provided for in the merger agreement 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 Cytyc or Cytyc s underlying business decision to effect the merger. The opinions do not constitute a recommendation to any stockholder as to how such stockholder should vote or act with respect to any matters relating to the merger. Holders of Cytyc common stock are encouraged to read the opinions carefully in their entirety. The summaries of Morgan Stanley s and JPMorgan s opinions described below are qualified in their entirety by reference to the full texts of the opinions.

Opinion of Morgan Stanley. Cytyc retained Morgan Stanley to provide it with financial advisory services and a financial opinion in connection with a possible merger or sale of Cytyc. Morgan Stanley was selected by Cytyc to act as its financial advisor based on Morgan Stanley s qualifications, expertise, reputation and its knowledge of the business and affairs of Cytyc. At the special meeting of Cytyc s board of directors on May 20, 2007, Morgan Stanley rendered its oral opinion, subsequently confirmed in writing, that, as of May 20, 2007, based upon and subject to the various considerations set forth in the opinion, the merger consideration to be received by the holders of the Cytyc common stock pursuant to the merger agreement was fair from a financial point of view to such holders.

83

The full text of the written opinion of Morgan Stanley, dated as of May 20, 2007, is attached hereto as Annex E to this joint proxy statement/prospectus. The opinion sets forth, among other things, the assumptions made, procedures followed, matters considered and limitations on the scope of the review undertaken by Morgan Stanley in rendering its opinion. You should read the entire opinion carefully. Morgan Stanley s opinion is directed to Cytyc s board of directors and addresses only the fairness of the consideration to be received by the holders of the Cytyc common stock pursuant to the merger agreement to such holders as of the date of the opinion. It does not address any other aspect of the merger and does not constitute a recommendation to the stockholders of Cytyc or Hologic as to how to vote at the stockholders meetings to be held in connection with the merger. The summary of the opinion of Morgan Stanley set forth in this joint proxy statement/prospectus is qualified in its entirety by reference to the full text of the opinion.

In connection with rendering its opinion, Morgan Stanley, among other things:

reviewed certain publicly available financial statements and other business and financial information of Cytyc and Hologic, respectively;

reviewed certain internal financial statements and other financial and operating data concerning Cytyc and Hologic, respectively;

reviewed certain financial projections prepared by the managements of Cytyc and Hologic, respectively;

discussed the past and current operations and financial condition and the prospects of Cytyc and Hologic, including information relating to certain strategic, financial and operational benefits anticipated from the merger, with senior executives of Cytyc and Hologic, respectively;

reviewed the reported prices and trading activity for the Cytyc common stock and the Hologic common stock;

reviewed the pro forma impact of the merger on Hologic s earnings per share, cash flow, consolidated capitalization and financial ratios:

compared the financial performance of Cytyc and Hologic and the prices and trading activity of the Cytyc common stock and Hologic common stock with that of certain other comparable publicly-traded companies and their securities, respectively;

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

participated in discussions and negotiations among representatives of Cytyc and Hologic and certain other parties and their financial and legal advisors;

reviewed the merger agreement and certain related documents; and

performed such other analyses and considered such other factors as Morgan Stanley deemed appropriate.

Morgan Stanley assumed and relied upon, without independent verification, the accuracy and completeness of the information reviewed by it for the purposes of its opinion. With respect to the financial projections, including information relating to certain strategic, financial and operational benefits anticipated from the merger, Morgan Stanley assumed that they had been reasonably prepared on bases reflecting the best currently

available estimates and judgments of the future financial performance of Cytyc and Hologic. In addition, Morgan Stanley assumed that the merger will be completed in accordance with the terms set forth in the merger agreement without any waiver, amendment or delay of any terms or conditions, including, among other things, that the merger will be treated as a tax-free reorganization and/or exchange, each pursuant to the Code. Morgan Stanley relied upon, without independent verification, the assessment by the managements of Cytyc and Hologic

84

Table of Contents

of: (i) the strategic, financial and other benefits expected to result from the merger; (ii) the timing and risks associated with the integration of Cytyc and Hologic; (iii) their ability to retain key employees of Cytyc and Hologic, respectively; and (iv) the validity of and risks associated with Cytyc and Hologic s existing and future technologies, intellectual property, products, services and business models. Morgan Stanley is not a legal, tax or regulatory advisor. Morgan Stanley is a financial advisor only and relied upon, without independent verification, the assessment of Hologic and Cytyc, and their legal, tax or regulatory advisors with respect to such matters. Morgan Stanley did not make any independent valuation or appraisal of the assets or liabilities of Cytyc, nor was it furnished with any such appraisals. Morgan Stanley s opinion was necessarily based on economic, market and other conditions as in effect on, and the information made available to it as of the date of the opinion. Events occurring after the date of the opinion may affect Morgan Stanley s opinion and the assumptions used in preparing it, and Morgan Stanley did not assume any obligation to update, revise or reaffirm its opinion.

In arriving at its opinion, Morgan Stanley was not authorized to solicit, and did not solicit, interest from any party with respect to the acquisition, business combination or other extraordinary transaction, involving Cytyc or any of its assets, nor did Morgan Stanley negotiate with any party other than Hologic.

Summary of Certain Financial Analyses Conducted by Morgan Stanley

The following is a brief summary of the material analyses performed by Morgan Stanley in connection with its opinion dated May 20, 2007. This summary of financial analyses includes information presented in tabular format. In order to fully understand the financial analyses used by Morgan Stanley, the tables must be read together with the text of each summary. The tables alone do not constitute a complete description of the financial analyses.

Equity Research Analyst Price Targets Analysis

Morgan Stanley reviewed and analyzed future public market trading price targets for Cytyc common stock prepared and published by equity research analysts. These targets reflect each analyst s estimate of the future public market trading price of Cytyc common stock. Morgan Stanley noted that the range of equity analyst price targets of Cytyc common stock was between \$37.00 and \$42.00 per share. Morgan Stanley further calculated that using a discount rate of 8.5% and a discount period of one year, the present value of the equity analyst price target range was \$34.10 to \$38.71.

The public market trading price targets published by securities research analysts do not necessarily reflect current market trading prices for Cytyc common stock and these estimates are subject to uncertainties, including the future financial performance of Cytyc and future financial market conditions.

Comparable Company Analysis

Morgan Stanley compared selected financial information for Cytyc with publicly available information for comparable healthcare companies that shared similar characteristics with Cytyc. The companies used in this comparison included those companies listed below:

American Medical Systems Holdings Inc.
Gen-Probe Inc.
ArthroCare Corp.
Ventana Medical Systems Inc.
Immucor Inc.

Digene Corp.

85

Based upon IBES consensus estimates for calendar year 2008 earnings per share and long-term growth of earnings per share, and using the closing prices as of May 18, 2007 for shares of the comparable companies listed above, Morgan Stanley calculated the following ratios for each of these companies:

the closing stock price divided by the estimated IBES consensus earnings per share for calendar year 2008, referred to below as the P/E Multiple; and

the P/E Multiple divided by the estimated IBES consensus long-term growth rate of earnings per share, referred to below as the P/E/G Ratio.

Based on the analysis of the relevant metrics for each of the comparable companies, Morgan Stanley selected representative ranges of P/E Multiples and P/E/G Ratios for the comparable companies and applied these ranges to the relevant Cytyc financial statistic(s) as provided by Cytyc management and publicly available information. Based on this analysis, Morgan Stanley calculated the implied value per share of Cytyc common stock as of May 18, 2007, as follows:

	Cytyc	Cytyc Cytyc IBES Comparable		Implied Value Per	
	Calendar Year	Consensus Long-Term	Company Multiple	Share Range for	
Financial Metric	2008 EPS	Growth	Statistics	Cytyc	
P/E Multiple	\$ 1.64	NA	20.0x - 28.0x	\$ 32.88 - \$46.03	
P/E/G Ratio	\$ 1.64	17.0%	0.7x - 1.0x	\$ 19.56 - \$27.95	

No company included in the comparable company analysis is identical to Cytyc. In evaluating the comparable companies, Morgan Stanley made judgments and assumptions with regard to industry performance, general business, economic, market and financial conditions and other matters. Many of these matters are beyond the control of Cytyc, such as the impact of competition on the business of Cytyc and the industry in general, industry growth and the absence of any material adverse change in the financial condition and prospects of Cytyc or the industry or in the financial markets in general. Mathematical analysis, such as determining the arithmetic mean or median, or the high or low, is not in itself a meaningful method of using comparable company data.

Analysis of Precedent Transactions

Morgan Stanley compared the premia paid in 57 selected transactions from January 1, 2002 through May 16, 2007 in which the target company was a U.S. based company and was publicly traded. The following table summarizes Morgan Stanley s analysis:

Precedent Transactions Premia	Premium to 1-Day Prior Price	Premium to 4-Weeks Prior Price
Mean	19.5%	25.6%
Median	15.6%	24.5%
High	75.4%	74.8%
Low	(4.6)%	(1.2)%
Representative Range	10.0% - 30.0%	25.0% - 40.0%
Implied Value per Share	\$38.56 - \$45.57	\$43.85 - \$49.11
Discounted Cash Flow Analysis		

Morgan Stanley calculated ranges of implied equity values per share for Cytyc, based on discounted cash flow analyses utilizing Cytyc management projections for the calendar years 2007 through 2017. In arriving at the estimated equity values per share of Cytyc common stock, Morgan Stanley calculated a terminal value as of December 31, 2017 by applying a range of perpetual free cash flow growth rates ranging from 1.0% to 3.0%. The unlevered free cash flows from calendar years 2007 through 2017 and the terminal value were then discounted to present values using a range of discount rates from 8.0% to 9.0%. Based on the calculations set forth above, this analysis implied a range for Cytyc common stock of \$33.10 to \$45.42 per share.

Table of Contents

Morgan Stanley also calculated ranges of implied value per share to be received by Cytyc stockholders in exchange for their Cytyc common stock in the form of shares of the pro forma combined entity plus cash consideration per share. This calculation was based on a discounted cash flow analysis utilizing Cytyc s management projections discussed above, and projections relating to Hologic prepared by Cytyc management for the fiscal years 2007 through 2017, each ending September 30. In calculating the implied value per share to be received by Cytyc stockholders in exchange for their Cytyc common stock in the form of shares of the pro forma combined entity plus cash consideration, Morgan Stanley calculated a terminal value as of September 30, 2017 by applying a range of perpetual free cash flow growth rates from 2.5% to 3.5%. The pro forma unlevered free cash flows from fiscal years 2007 through 2017 and the terminal value were then discounted to present values using a range of discount rates from 8.0% to 9.0%. Morgan Stanley noted the range of implied value per share to be received by Cytyc stockholders assuming the 0.52 exchange ratio plus \$16.50 in cash per share of Cytyc common stock was \$38.96 to \$50.24.

Morgan Stanley also noted the range of implied value per share to be received by Cytyc stockholders in exchange for their Cytyc common stock when including cost synergies from the merger as estimated by Cytyc management, plus \$16.50 in cash per share of Cytyc common stock, was \$40.00 to \$51.67.

Morgan Stanley also noted that the range of implied value per share to be received by Cytyc stockholders in exchange for their Cytyc common stock when including revenue and cost synergies from the merger as estimated by Cytyc management, plus \$16.50 in cash per share of Cytyc common stock, was \$41.80 to \$54.12.

In connection with the review of the merger by Cytyc s board of directors, Morgan Stanley performed a variety of financial and comparative analyses for purposes of rendering its opinion. The preparation of a financial opinion is a complex process and is not necessarily susceptible to a partial analysis or summary description. In arriving at its opinion, Morgan Stanley considered the results of all of its analyses as a whole and did not attribute any particular weight to any analysis or factor it considered. Morgan Stanley believes that selecting any portion of its analyses, without considering all analyses as a whole, would create an incomplete view of the process underlying its analyses and opinion. In addition, Morgan Stanley may have given various analyses and factors more or less weight than other analyses and factors, and may have deemed various assumptions more or less probable than other assumptions. As a result, the ranges of valuations resulting from any particular analysis described above should not be taken to be Morgan Stanley s view of the actual value of Cytyc. In performing its analyses, Morgan Stanley made numerous assumptions with respect to industry performance, general business and economic conditions and other matters. Many of these assumptions are beyond the control of Cytyc. Any estimates contained in Morgan Stanley s analyses are not necessarily indicative of future results or actual values, which may be significantly more or less favorable than those suggested by such estimates.

Morgan Stanley conducted the analyses described above solely as part of its analysis of the fairness of the merger consideration pursuant to the merger agreement from a financial point of view to holders of shares of Cytyc common stock and in connection with the delivery of its opinion to Cytyc s board of directors. These analyses do not purport to be appraisals or to reflect the prices at which shares of common stock of Cytyc might actually trade.

The merger consideration was determined through arm s-length negotiations between Cytyc and Hologic and was approved by Cytyc s board of directors. Morgan Stanley provided advice to Cytyc during these negotiations. Morgan Stanley did not, however, recommend any specific merger consideration to Cytyc or that any specific merger consideration constituted the only appropriate merger consideration for the merger.

Morgan Stanley s opinion and its presentation to Cytyc s board of directors was one of many factors taken into consideration by Cytyc s board of directors in deciding to approve, adopt and authorize the merger agreement. Consequently, the analyses as described above should not be viewed as determinative of the opinion of Cytyc s board of directors with respect to the merger consideration or of whether Cytyc s board of directors would have been willing to agree to a different merger consideration.

87

Table of Contents

Morgan Stanley is an internationally recognized investment banking and advisory firm. Morgan Stanley, as part of its investment banking and financial advisory business, is continuously engaged in the valuation of businesses and securities in connection with mergers and acquisitions, negotiated underwritings, competitive biddings, secondary distributions of listed and unlisted securities, private placements and valuations for corporate, estate and other purposes. In the ordinary course of its trading, brokerage, investment management and financing activities, Morgan Stanley or its affiliates may actively trade the equity securities of Cytyc for its own accounts or for the accounts of its customers and, accordingly, may at any time hold long or short positions in such securities. In the past, Morgan Stanley and its affiliates have provided financial advisory services for Cytyc and have received fees for the rendering of these services.

Under the terms of its engagement letter, Morgan Stanley provided Cytyc financial advisory services and a financial opinion in connection with the merger, and Cytyc agreed to pay Morgan Stanley a customary fee, which is contingent upon completion of the merger. Cytyc has also agreed to reimburse Morgan Stanley for its expenses incurred in performing its services. In addition, Cytyc has agreed to indemnify Morgan Stanley and its affiliates, their respective directors, officers, agents and employees and each person, if any, controlling Morgan Stanley or any of its affiliates against certain liabilities and expenses, including certain liabilities under the federal securities laws, related to or arising out of Morgan Stanley s engagement.

Opinion of JPMorgan. Pursuant to an engagement letter dated May 16, 2007, Cytyc retained JPMorgan to act as its financial advisor for the purpose of rendering to the Cytyc board of directors an opinion as to the fairness, from a financial point of view, of the merger consideration to be received by the holders of Cytyc common stock in the merger. At the meeting of the Cytyc board of directors on May 20, 2007, JPMorgan rendered its oral opinion, subsequently confirmed in writing, to the Cytyc board of directors to the effect that, as of that date and based upon and subject to the matters set forth in JPMorgan s opinion, the merger consideration to be received by holders of Cytyc common stock in the merger was fair, from a financial point of view, to those holders.

The full text of the written opinion of JPMorgan, dated May 20, 2007, which sets forth the assumptions made, matters considered and limits on the review undertaken by JPMorgan in rendering its opinion, is attached as Annex F to this joint proxy statement/prospectus. Cytyc encourages its stockholders to read the opinion carefully in its entirety. JPMorgan s written opinion was addressed to the Cytyc board of directors, was directed only to the fairness, from a financial point of view, of the consideration to be received by holders of Cytyc common stock in the merger, and does not constitute a recommendation to any Cytyc stockholder as to how such stockholder should vote with respect to the merger or any other matter. The summary of the opinion of JPMorgan set forth in this joint proxy statement/prospectus is qualified in its entirety by reference to the full text of the opinion.

In arriving at its opinion, JPMorgan, among other things:

reviewed the merger agreement;

reviewed certain publicly available business and financial information concerning Cytyc and Hologic and the industries in which they operate;

compared the proposed financial terms of the merger with the publicly available financial terms of certain transactions involving companies JPMorgan deemed relevant and the consideration received for such companies;

compared the financial and operating performance of Cytyc and Hologic with publicly available information concerning certain other companies JPMorgan deemed relevant and reviewed the current and historical market prices of Cytyc common stock and Hologic common stock and certain publicly traded securities of such other companies;

reviewed certain internal financial analyses and forecasts prepared by Hologic management relating to the business of Hologic;

88

Table of Contents

reviewed certain internal financial analyses and forecasts prepared by Cytyc management relating to the businesses of Cytyc and Hologic, as well as the estimated amount and timing of the cost savings and related expenses and synergies expected to result from the merger, which are referred to below as the synergies; and

performed other financial studies and considered other information as JPMorgan deemed appropriate for the purposes of its opinion. JPMorgan also held discussions with certain members of Cytyc management and Hologic management with respect to certain aspects of the merger, the past and current business operations of Cytyc and Hologic, the financial condition and future prospects and operations of Cytyc and Hologic, the effects of the merger on the financial condition and future prospects of Cytyc and Hologic, and certain other matters that JPMorgan believed necessary or appropriate to its inquiry.

In giving its opinion, JPMorgan relied upon and assumed, without assuming responsibility or liability for independent verification, the accuracy and completeness of all information that was publicly available or was furnished to or discussed with JPMorgan by Cytyc and Hologic or otherwise reviewed by or for JPMorgan. JPMorgan did not conduct and was not provided with any valuation or appraisal of any assets or liabilities, nor did JPMorgan evaluate the solvency of Cytyc or Hologic under any state or federal laws relating to bankruptcy, insolvency or similar matters. In relying on financial analyses and forecasts provided to JPMorgan, including the synergies, JPMorgan assumed that they were reasonably prepared based on assumptions reflecting the best currently available estimates and judgments by Cytyc management as to the expected future results of operations and financial condition of Cytyc and Hologic to which those analyses or forecasts relate. JPMorgan expressed no view as to those analyses or forecasts, including the synergies, or the assumptions on which they were based. JPMorgan also assumed that the merger will qualify as a tax-free reorganization for United States federal income tax purposes, and that the other transactions contemplated by the merger agreement will be completed as described in the merger agreement. JPMorgan also assumed that the representations and warranties made by Cytyc and Hologic in the merger agreement and the related agreements will be true and correct in all ways material to JPMorgan s analysis. JPMorgan relied as to all legal, regulatory and tax matters relevant to the rendering of its opinion upon the advice of advisors to Cytyc. JPMorgan further assumed that all material governmental, regulatory or other consents and approvals necessary for the completion of the merger will be obtained without any adverse effect on Cytyc, Hologic or on the contemplated benefits of the merger.

JPMorgan s opinion was based on economic, market and other conditions as in effect on, and the information made available to JPMorgan as of, the date of its opinion. Subsequent developments may affect the opinion, and JPMorgan does not have any obligation to update, revise or reaffirm its opinion. JPMorgan s opinion was limited to the fairness, from a financial point of view, of the consideration to be received by holders of Cytyc common stock in the merger, and JPMorgan expressed no opinion as to the fairness of the merger to, or any consideration received in connection therewith by, the holders of any other class of securities, creditors or other constituencies of Cytyc or as to the underlying decision by Cytyc to engage in the merger. JPMorgan expressed no opinion as to the price at which Cytyc common stock or Hologic common stock will trade at any future time.

JPMorgan was not requested to and did not provide advice concerning the structure, the specific amount of the merger consideration, or any other aspects of the merger, or to provide services other than the delivery of its opinion. JPMorgan was not authorized to and did not solicit any expressions of interest from any other parties with respect to the sale of all or any part of Cytyc or any other alternative transaction, and did not participate in negotiations with respect to the terms of the merger and related transactions.

In accordance with customary investment banking practice, JPMorgan employed generally accepted valuation methods in reaching its opinion. The following is a summary of the material financial analyses utilized by JPMorgan in connection with providing its opinion. The financial analyses summarized below include

89

Table of Contents

information presented in tabular format. In order to fully understand JPMorgan s financial analyses, the tables must be read together with the text of each summary. The tables alone do not constitute a complete description of the financial analyses. Considering the data described below without considering the full narrative description of the financial analyses, including the methodologies and assumptions underlying the analyses, could create a misleading or incomplete view of JPMorgan s financial analyses.

Transaction Overview

Based upon the closing price per share of Hologic common stock of \$57.61 on May 18, 2007, which was the last trading day prior to the public announcement of the merger, the exchange ratio of 0.52 of a share of Hologic common stock per share of Cytyc common stock, and the cash consideration of \$16.50 per share of Cytyc common stock, JPMorgan noted that the implied value of the merger consideration pursuant to the merger as of May 18, 2007 was \$46.46 per share of Cytyc common stock. JPMorgan also noted that the implied merger consideration of \$46.46 per share of Cytyc common stock represented:

a premium of 32.5% over the closing price per share of Cytyc common stock on May 18, 2007 of \$35.05;

a premium of 25.2% over the highest closing price per share of Cytyc common stock for the 52-weeks ending May 18, 2007;

a premium of 32.2% over the average closing price per share of Cytyc common stock for the 1-month ending May 18, 2007;

a premium of 38.2% over the average closing price per share of Cytyc common stock for the 3-months ending May 18, 2007;

a premium of 50.1% over the average closing price per share of Cytyc common stock for the 6-months ending May 18, 2007; and

a premium of 67.0% over the average closing price per share of Cytyc common stock for the 1-year ending May 18, 2007.

Cytyc Analysis

Historical Share Price Analysis. JPMorgan reviewed the price performance of Cytyc common stock during various periods ending on May 18, 2007, on a stand-alone basis and also in relation to Hologic common stock, the S&P 500, and a composite index consisting of the following publicly traded companies:

American Medical Systems, Inc.;

ArthroCare Corporation;

Gen-Probe Incorporated;

Digene Corporation;

Immucor, Inc.; and

Ventana Medical Systems, Inc.

JPMorgan noted that the low and high trading prices per share of Cytyc common stock during the 52-week period ending on May 18, 2007 were approximately \$22.79 and \$37.10, compared to the closing price per share of Cytyc common stock of \$35.05 on May 18, 2007 and the implied merger consideration of \$46.46 per share of Cytyc common stock.

Analyst Price Targets. JPMorgan reviewed price targets for Cytyc common stock published by Wall Street equity research analysts from April 26, 2007 through May 15, 2007. These price targets for Cytyc common stock

90

ranged from \$32.00 to \$42.00 per share, compared to the closing price per share of Cytyc common stock of \$35.05 on May 18, 2007 and the implied merger consideration of \$46.46 per share of Cytyc common stock.

Selected Companies Analysis. Using publicly available information and information provided by Cytyc management, JPMorgan compared selected financial data of Cytyc with similar data for the group of companies listed above under - Historical Share Price Analysis. In its analysis, JPMorgan derived and compared multiples for Cytyc and the selected companies, calculated as follows:

the price per share divided by estimated earnings per share, or EPS, for calendar year 2007, which is referred to below as 2007E P/E ; and

the price per share divided by the product obtained by multiplying estimated EPS for calendar year 2007 by the estimated long-term earnings per share growth rate, which is referred to below as 2007E PEG.

This analysis indicated the following:

Selected Companies Analysis

Benchmark	High	Low
2007E P/E	39.2x	28.0x
2007E PEG	1.68x	1.10x

Using a reference range of 25.0x to 33.0x Cytyc s 2007E EPS and 1.20x to 1.70x Cytyc s 2007E PEG, JPMorgan determined a range of implied equity values for Cytyc. This analysis indicated a range of implied values per share of Cytyc common stock of approximately \$33.00 to \$43.50 using Cytyc s 2007E EPS and \$27.00 to \$38.25 using Cytyc s 2007E PEG, compared in each case to the closing price per share of Cytyc common stock of \$35.05 on May 18, 2007 and the implied merger consideration of \$46.46 per share of Cytyc common stock.

It should be noted that no company utilized in the analysis above is identical to Cytyc.

Selected Transactions Analysis. Using publicly available information, JPMorgan reviewed the following transactions involving companies in the focused diagnostics/women s health industry. The transactions considered and the month and year each transaction was announced were as follows:

Acquiror	Target	Month and Year Announced
Inverness Medical Innovations, Inc.	Biosite Incorporated	May 2007
Cytyc Corporation	Adeza Biomedical Corporation	February 2007
General Electric Company	Abbott Diagnostics	January 2007
Danaher Corporation	Vision Systems Limited	October 2006
Becton Dickinson and Company	TriPath Imaging, Inc.	August 2006
Siemens AG	Bayer Diagnostics	June 2006
Siemens AG	Diagnostic Products Corporation	April 2006
Hologic	R2 Technology, Inc.	April 2006
Hologic	Suros Surgical Systems, Inc.	April 2006
Cytyc	Novacept Inc.	March 2004

Using publicly available estimates, JPMorgan reviewed the transaction value as a multiple of the target company s latest twelve months, or LTM, earnings before interest, taxes, depreciation and amortization, or EBITDA, immediately preceding announcement of the transaction, which is referred to below as Firm Value/LTM EBITDA.

This analysis indicated the following:

Selected Transactions Analysis

Benchmark	High	Low	Mean	Median
Firm Value/LTM EBITDA	27.3x	11.2x	16.7x	15.1x

Using a reference range of 15.0x to 20.0x Cytyc s LTM EBITDA, JPMorgan determined a range of implied enterprise values for Cytyc, which were then adjusted for Cytyc s cash and total debt as of March 31, 2007 to determine a range of implied equity values. This analysis indicated a range of implied values per share of Cytyc common stock of approximately \$34.25 to \$44.75, compared to the closing price per share of Cytyc common stock of \$35.05 on May 18, 2007 and the implied merger consideration of \$46.46 per share of Cytyc common stock.

It should be noted that no company utilized in the analysis above is identical to Cytyc and no transaction is identical to the merger.

Discounted Cash Flow Analysis. JPMorgan conducted a discounted cash flow analysis for the purpose of determining the implied fully diluted equity value per share for Cytyc common stock on a standalone basis without giving effect to the proposed merger or any potential synergies, using financial forecasts prepared by Cytyc management for the fiscal years 2007 through 2017. JPMorgan calculated the unlevered free cash flows that Cytyc is expected to generate during fiscal years 2007 through 2017. JPMorgan then calculated an implied range of terminal values for Cytyc using a range of perpetuity growth rates for free cash flows from 2.5% to 3.5% and a range of discount rates from 8.5% to 9.5%. The unlevered free cash flows and the range of terminal values were then discounted to present value using a range of discount rates from 8.5% to 9.5%. The present value of the unlevered free cash flows and the range of terminal values were then adjusted for Cytyc s cash and total debt as of March 31, 2007. This analysis indicated a range of implied values per share of Cytyc common stock of approximately \$34.00 to \$43.75, compared to the closing price per share of Cytyc common stock of \$35.05 on May 18, 2007 and the implied merger consideration of \$46.46 per share of Cytyc common stock.

Hologic Analysis

Historical Share Price Analysis. JPMorgan reviewed the price performance of Hologic common stock during various periods ending on May 18, 2007, on a stand-alone basis and also in relation to Cytyc common stock, the S&P 500, and a composite index consisting of the following publicly traded companies:

Accuray incorporated;
Intuitive Surgical, Inc.;
ResMed, Inc.;
Respironics, Inc.;
SonoSite Inc.; and

Varian Medical Systems, Inc.

JPMorgan noted that the low and high trading prices per share of Hologic common stock during the 52-week period ending on May 18, 2007 were approximately \$35.36 and \$63.18, compared to the closing price per share of Hologic common stock of \$57.61 on May 18, 2007.

Analyst Price Targets. JPMorgan reviewed price targets for Hologic common stock published by Wall Street equity research analysts from March 3, 2007 through May 2, 2007. These price targets for Hologic common stock ranged from \$63.00 to \$70.00, compared to the closing price per share of Hologic common stock of \$57.61 on May 18, 2007.

Selected Companies Analysis. Using publicly available information and information provided by Cytyc management, JPMorgan compared selected financial data of Hologic with similar data for the group of companies listed above under Historical Share Price Analysis. In its analysis, JPMorgan derived and compared multiples for Hologic and the selected companies, calculated as follows:

the price per share divided by estimated EPS for calendar year 2008, which is referred to below as 2008E P/E; and

the price per share divided by the product obtained by multiplying estimated EPS for calendar year 2008 by the estimated long-term earnings per share growth rate, which is referred to below as 2008E PEG.

This analysis indicated the following:

Selected Companies Analysis

Benchmark	High	Low
2008E P/E	34.9x	19.2x
2008E PEG	1.29x	0.76x

Using a reference range of 26.0x to 33.0x Hologic s 2008E EPS and 0.75x to 1.00x Hologic s 2008E PEG, JPMorgan determined a range of implied equity values for Hologic. This analysis indicated a range of implied values per share of Hologic common stock of approximately \$57.00 to \$72.25 using Hologic s 2008E EPS and \$57.50 to \$76.50 using Hologic s 2008E PEG, compared to the closing price per share of Hologic common stock of \$57.61 on May 18, 2007.

It should be noted that no company utilized in the analysis above is identical to Hologic.

Discounted Cash Flow Analysis. JPMorgan conducted a discounted cash flow analysis for the purpose of determining the implied fully diluted equity value per share for Hologic common stock on a standalone basis without giving effect to the proposed merger or any potential synergies, using financial forecasts prepared by Hologic management as adjusted by Cytyc management for the fiscal years 2007 through 2017.

JPMorgan calculated the unlevered free cash flows that Hologic is expected to generate during fiscal years 2007 through 2017. JPMorgan calculated an implied range of terminal values for Hologic using a range of perpetuity growth rates for free cash flows from 3.0% to 4.0% and a range of discount rates from 8.5% to 9.5%. The unlevered free cash flows and the range of terminal values were then discounted to present value using a range of discount rates from 8.5% to 9.5%. The present value of the unlevered free cash flows and the range of terminal values were then adjusted for Hologic s cash and total debt as of March 31, 2007. This analysis indicated a range of implied values per share of Hologic common stock of approximately \$49.50 to \$66.75, compared to the closing price per share of Hologic common stock of \$57.61 on May 18, 2007.

Pro Forma Analysis. JPMorgan analyzed the potential pro forma impact of the merger on Hologic s pro forma earnings per share on a cash basis, which excludes the estimated impact of the amortization of identifiable intangibles relating to Hologic s acquisition of Cytyc, and on a GAAP basis. In this analysis, 2008 and 2009 earnings projections for Hologic were based on earnings projections prepared by Hologic management as adjusted by Cytyc management, and earnings projections for Cytyc were prepared by Cytyc management. JPMorgan assumed for purposes of this analysis that the merger would close on September 30, 2007.

Based on this analysis, JPMorgan observed that the merger would result in earnings per share accretion for Hologic stockholders on a cash basis and excluding synergies of 4.0% and 17.1% for 2008 and 2009, respectively, and earnings per share accretion for Hologic stockholders on a cash basis and including synergies of 9.9% and 23.3% for 2008 and 2009, respectively. JPMorgan also observed that the merger would result in

Table of Contents

earnings per share dilution for Hologic stockholders on a GAAP basis and excluding synergies of 21.2% and 4.4% for 2008 and 2009, respectively, and earnings per share dilution for Hologic stockholders on a GAAP basis and including synergies of 14.8% for 2008 and earnings per share accretion on a GAAP basis and including synergies of 2.2% for 2009.

The summary set forth above does not purport to be a complete description of the analyses or data utilized by JPMorgan. The preparation of a fairness opinion is a complex process and is not necessarily susceptible to partial analysis or summary description. JPMorgan believes that the summary set forth above and its analyses must be considered as a whole and that selecting portions thereof, without considering all of its analyses, could create an incomplete view of the processes underlying its analyses and opinion. JPMorgan based its analyses on assumptions that it deemed reasonable, including assumptions concerning general business and economic conditions and industry-specific factors. The other principal assumptions upon which JPMorgan based its analyses are set forth above under the description of each analysis. JPMorgan s analyses are not necessarily indicative of actual values or actual future results that might be achieved, which values may be higher or lower than those indicated. Moreover, JPMorgan s analyses are not and do not purport to be appraisals or otherwise reflective of the prices at which businesses actually could be bought or sold.

As a part of its investment banking business, JPMorgan and its affiliates are continually engaged in the valuation of businesses and their securities in connection with mergers and acquisitions, investments for passive and control purposes, negotiated underwritings, secondary distributions of listed and unlisted securities, private placements and valuations for estate, corporate and other purposes. JPMorgan was selected to deliver an opinion to the Cytyc board of directors with respect to the merger on the basis of JPMorgan s experience and its familiarity with Cytyc.

For services rendered, Cytyc agreed to pay JPMorgan a fee of \$4.0 million payable upon delivery of its opinion. In addition, Cytyc has agreed to reimburse JPMorgan for its reasonable expenses incurred in connection with its services, including reasonable fees of outside counsel, and will indemnify JPMorgan against certain liabilities, including liabilities arising under federal securities laws.

In addition, JPMorgan and its affiliates maintain commercial and investment banking and other business relationships with Cytyc, Hologic and their respective affiliates, for which it receives customary fees. In the ordinary course of their businesses, JPMorgan and its affiliates may actively trade the debt and equity securities of Cytyc or Hologic for their own accounts or for the accounts of customers and, accordingly, they may at any time hold long or short positions in those securities. In addition, JPMorgan served as financial advisor to Cytyc in connection with its acquisition of Adeza Biomedical Corporation in 2007 and as financial advisor to Hologic in connection with its acquisition of R2 Technology, Inc. in 2006. After JPMorgan delivered its opinion to the Cytyc board of directors and the merger agreement was entered into, JPMorgan and one of its affiliates became parties to an amended and restated commitment letter with Hologic to provide a portion of the financing required by Hologic in connection with the merger, for which JPMorgan and such affiliate would expect to receive compensation.

Interests of Cytyc Executive Officers and Directors in the Merger

In considering the recommendation of the Cytyc board of directors with respect to the merger, Cytyc stockholders should be aware that executive officers of Cytyc and members of the Cytyc board of directors may have interests in the transactions contemplated by the merger agreement that are different from, or in addition to, the interests of the Cytyc stockholders generally. The Cytyc board of directors was aware of these interests and considered them, among other matters, in approving the merger agreement and making its recommendation. These interests are summarized below.

Board and Committee Composition of Hologic After the Merger. The following summarizes certain changes that will take effect at the effective time of the merger. At the effective time of the merger, the board of

94

Table of Contents

directors of Hologic will be comprised of eleven members, with six nominated by Hologic and five nominated by Cytyc. Mr. Sullivan, currently the chairman, chief executive officer and president of Cytyc, will serve as chairman of the board of directors of Hologic. See Board of Directors and Management of Hologic Following the Merger; Headquarters beginning on page 104.

At the effective time of the merger, each of the audit committee, the nominating and corporate governance committee and the corporate development committee of the board of directors of Hologic will be comprised of an odd number of directors, consisting of one more continuing Hologic director than continuing Cytyc directors. The chairman of each of these committees will be a continuing Hologic director. In addition, at the effective time of the merger, the compensation committee of the board of directors of Hologic will be comprised of an even number of directors, consisting of an equal number of continuing Cytyc directors and continuing Hologic directors. The chairman of the compensation committee will be a continuing Cytyc director. See Board of Directors and Management of Hologic Following the Merger; Headquarters beginning on page 104.

Equity-Based Awards

Stock Options. All of the options held by executive officers and directors of Cytyc under the equity compensation plans maintained by Cytyc will vest (to the extent not already vested at the time of the merger) and become fully exercisable in connection with the merger. Based upon options outstanding as of June 22, 2007, the number of unvested options to acquire shares of Cytyc common stock held by Patrick J. Sullivan, Timothy M. Adams, Daniel J. Levangie, John P. McDonough and A. Suzanne Meszner-Eltrich, Cytyc s named executive officers, that will become fully vested and exercisable at the effective time of the merger is 1,344,250 in the aggregate. The number of unvested options to acquire shares of Cytyc common stock held by David Harding, Stuart A. Kingsley, Ellen E. Sheets, M.D. and Bradley Thomas, Cytyc s executive officers who are not named executive officers, that will become fully vested and exercisable at the effective time of the merger is 628,123 in the aggregate. The number of unvested options to acquire shares of Cytyc common stock held by the non-employee directors of Cytyc that will become fully vested and exercisable at the effective time of the merger is 364,000 in the aggregate. However, of the options held by Cytyc s executive officers and directors, [] will vest in any event in the ordinary course consistent with the terms and conditions of these options between the date of this joint proxy statement/prospectus and [], the date of the Cytyc special meeting.

In connection with the merger, each Cytyc option that is outstanding immediately prior to the effective time of the merger will remain outstanding following the completion of the merger and will be converted into the right to acquire shares of Hologic common stock as described in the section entitled The Merger Agreement Cytyc Stock Options, Restricted Stock Units, Performance Shares, Deferred Shares, Employee Stock Purchase Plan beginning on page 117. Any option so converted shall as a general rule be exercisable for the remainder of such option so original term as granted by Cytyc.

Restricted Stock Units. All of the restricted stock units held by executive officers of Cytyc under the equity compensation plans maintained by Cytyc will vest (to the extent not already vested at the time of the merger) and be converted into the right to receive Hologic common stock at the effective time of the merger. Based upon restricted stock units outstanding as of June 22, 2007, the number of unvested restricted stock units representing shares of Cytyc common stock held by Cytyc s named executive officers that will become fully vested and be converted into the right to receive Hologic common stock at the effective time of the merger is 30,000, which are held solely by Timothy M. Adams. No other executive officers hold any restricted stock units. See The Merger Agreement Cytyc Stock Options, Restricted Stock Units, Performance Shares, Deferred Shares, Employee Stock Purchase Plan beginning on page 117.

Performance Shares. All of the Cytyc performance shares held by executive officers of Cytyc under the equity compensation plans maintained by Cytyc will vest at the target award level in connection with the merger. Based upon the performance shares outstanding as of June 22, 2007, the number of unvested performance shares representing shares of Cytyc common stock held by Cytyc s named executive officers that will become fully

95

Table of Contents

vested in connection with the merger is 82,000 in the aggregate. The number of unvested performance shares representing shares of Cytyc common stock held by the executive officers (other than Cytyc s named executive officers) that will become fully vested in connection with the merger is 25,000 in the aggregate. See The Merger Agreement Cytyc Stock Options, Restricted Stock Units, Performance Shares, Deferred Shares, Employee Stock Purchase Plan beginning on page 117.

Other Interests of Directors. Each Cytyc non-employee director is entitled, under the equity compensation plans maintained by Cytyc, to receive payment of annual retainer fees for any calendar year either in cash or in shares of Cytyc common stock. Each non-employee director is also entitled to receive an annual stock award of 1,000 shares of Cytyc common stock, which is earned monthly based on service and which is issued on January 1 of the following calendar year. Lastly, each Cytyc non-employee director is paid a cash fee for every meeting attended. Each non-employee director may elect to defer for tax purposes the payment of the annual retainer, annual stock award and meeting attendance fees.

Under the terms of the merger agreement, each share of Cytyc common stock deferred by a director under the amended and restated director compensation method plan maintained by Cytyc will vest (to the extent not already vested at the time of the merger) and be converted into shares of Hologic common stock in connection with the merger. Based upon the number of shares of Cytyc common stock deferred as of June 22, 2007, the number of deferred shares of Cytyc common stock that will become fully vested and be converted into shares of Hologic common stock in connection with the merger is 6,993 in the aggregate. In addition, under the terms of the merger agreement and in connection with the annual stock award to Cytyc non-employee directors, holders of each share of Cytyc common stock accrued in 2007 for issuance to members of the board of directors of Cytyc on January 1, 2008 will be entitled to receive the merger consideration on the same basis as all other shares of Cytyc common stock.

Hologic plans to grant options to purchase 50,000 shares of its common stock to each Cytyc director who becomes a Hologic independent director following the merger. See Interests of Hologic Executive Officers and Directors in the Merger Payments and Considerations to Executive Officers and Directors in Connection with the Merger Continuing Hologic Directors for more information.

For additional information about the directors and the executive officers of Cytyc, see Annex B under the sections entitled Information about Cytyc Executive Officers and Directors of Cytyc Corporation, Security Ownership of Certain Beneficial Owners and Management of Cytyc and Cytyc Executive and Director Compensation.

Change of Control Agreements. Cytyc has entered into change of control agreements with its executive officers that provide for payments and benefits in connection with specified terminations of employment after a change of control of Cytyc.

Each change of control agreement provides that the executive officer who is a party to a change of control agreement will be entitled to receive the following payments and benefits from Cytyc if a change of control occurs during the term of the agreement and the executive s employment is terminated by (i) the executive officer for good reason (as defined in the agreement) during the period commencing upon a change of control event and ending two years after a change of control (the change of control period), (ii) Cytyc other than for cause (as defined in the agreement) during the change of control period or (iii) Cytyc other than for cause in anticipation of a change of control:

the sum of (a) unpaid annual base salary through the termination date, (b) the annual bonus prorated for the year through the termination date, and (c) unpaid compensation previously deferred by the executive officer, if any (together with any accrued interest or earnings thereon), and unpaid accrued vacation pay (collectively, accrued obligations);

96

Table of Contents

the amount equal to product of (a) the executive officer s annual base salary and bonus and (b) 1.5 for Messrs. Adams, McDonough, Harding, Kingsley and Thomas, Ms. Meszner-Eltrich and Dr. Sheets, and 3 for Messrs. Sullivan and Levangie, to be paid in a cash lump sum within 30 days of the termination date;

continuation of all medical and welfare benefits provided by Cytyc to the executive and/or family prior to the termination date for a period of 1.5 years for Messrs. Adams, McDonough, Harding, Kingsley and Thomas, Ms. Meszner-Eltrich and Dr. Sheets, and 3 years for Messrs. Sullivan and Levangie or, if Cytyc is not able to provide such benefits, then reimbursement to the executive for 125% of Cytyc s cost for such benefits; and

outplacement services the scope and provisions of which will be at the highest level provided by Cytyc to peer employees. In the event that any payment by Cytyc to an executive officer in connection with a change of control would be subject to the excise tax imposed under Section 4999 of the Code, Cytyc will be obligated to make whole the executive officer with respect to such excise tax.

An executive officer s receipt of severance benefits pursuant to a change of control agreement is subject to the following conditions: (i) execution of a general release of Cytyc by the executive officer; (ii) presentation of satisfactory evidence that the executive has returned all of Cytyc s company property, confidential information and documentation to Cytyc; (iii) compliance with the provisions of the confidentiality agreement and non-competition agreement that the executive officer has entered into with Cytyc; and (iv) submission to Cytyc of a signed written resignation of the executive officer s status as an officer and/or director of Cytyc or of any of Cytyc s affiliates, if applicable.

Amendment to Change of Control Agreements. In connection with entering into the merger agreement, Cytyc plans to enter into amendments to the change of control agreements it has in place with its executive officers. Each amendment is expected to become effective immediately prior to the effective time of the merger, but will have no further force and effect in the event the merger agreement is terminated prior to the effective time of the merger. Each amendment will provide that, immediately prior to the effective time of the merger, Cytyc will pay to the executive officer the change of control payment described in the second bullet point under Change of Control Agreements, notwithstanding the requirement that the executive officer experience a termination of employment to receive the payment.

The following are the payments and benefits Cytyc s executive officers would receive if the merger is completed. The following calculations assume an effective time of the merger of September 1, 2007.

Payment and Benefits Resulting from the Merger/Change of Control for Cytyc s Executive Officers

Equity Award Benefits Resulting from the Merger/Change of Control for Cytyc s Executive Officers

	Number of Unvested Options that will Vest and Become Exercisable in Connection with the Merger	Number of Unvested Restricted Stock Units that will Vest in Connection with the Merger	Number of Unvested Performance Share Units that will Vest in Connection with the Merger	Estimated Dollar Value of Unvested Equity Awards that will Vest in Connection with the Merger	Estimated Dollar Value of Options that have Vested in the Ordinary Course	Estimated Aggregate Dollar
Name and Principal Position	(#)(1)(2)	(#)(1)(3)	(#)(1)(3)	(4)(5)	(5)	Value
Patrick J. Sullivan, Chairman, Chief Executive Officer and President Timothy M. Adams,	462,000 205,416	30,000	30,000	\$ 11,468,014 5,644,917	\$ 49,435,988 4,120,172	\$ 60,904,001 9,765,090
Senior Vice President, Chief Financial Officer and Treasurer	203,410	30,000	12,000	J,V++,21/	7,120,172	2,100,020
Daniel J. Levangie, President, Cytyc Surgical Products Division and Executive Vice President, Cytyc	348,500		20,000	8,708,155	24,035,791	30,743,946
John P. McDonough, President, Cytyc Development Company and Senior Vice President of	203,334		10,000	4,624,323	6,411,545	11,035,868

Corporate Development, Cytyc					
A. Suzanne Meszner-Eltrich,	125,000	10,000	3,039,008	2,969,049	6,008,057
Senior Vice President,					
General Counsel and					
Secretary					
David Harding,	146,249	10,000	3,120,256	2,315,165	5,435,420
President, International Division					
and Senior Vice President, Cytyc					
Stuart A. Kingsley,	197,291	5,000	4,425,297	1,462,569	5,887,866
President, Cytyc Diagnostic Products Division					
and Senior Vice President, Cytyc					
Ellen E. Sheets, M.D.,	101,250	10,000	2,556,227	237,223	2,793,450
Senior Vice President and					
Chief Medical Officer					
Bradley Thomas,	183,333		1,912,310	173,850	2,086,160
Senior Vice President,					
Human Resources and Organizational					
Development					

(1) More detail relating to the number and exercise price of the options that will vest and become exercisable in connection with the merger for each individual named in the chart above is as follows (assuming the merger has a closing date of September 1, 2007):

Patrick J. Sullivan: 112,000 options with an exercise price of \$12.65, 100,000 options with an exercise price of \$24.31, 150,000 options with an exercise price of \$28.39 and 100,000 options with an exercise price of \$28.17.

Timothy M. Adams: 72,916 options with an exercise price of \$26.10, 10,000 options with an exercise price of \$24.31, 82,500 options with an exercise price of \$28.39 and 40,000 options with an exercise price of \$28.17.

Daniel J. Levangie: 96,000 options with an exercise price of \$12.65, 75,000 options with an exercise price of \$24.31, 112,500 options with an exercise price of \$28.39 and 65,000 options with an exercise price of \$28.17.

John P. McDonough: 4,167 options with an exercise price of \$14.95, 20,000 options with an exercise price of \$12.65, 11,667 options with an exercise price of \$19.35, 50,000 options with an exercise price of \$24.31, 82,500 options with an exercise price of \$28.39 and 35,000 options with an exercise price of \$28.17.

Suzanne Meszner-Eltrich: 20,000 options with an exercise price of \$12.65, 30,000 options with an exercise price of \$24.31, 45,000 options with an exercise price of \$28.39 and 30,000 options with an exercise price of \$28.17.

David Harding: 29,166 options with an exercise price of \$25.23, 10,000 options with an exercise price of \$24.31, 27,083 options with an exercise price of \$27.63, 45,000 options with an exercise price of \$28.39 and 35,000 options with an exercise price of \$28.17.

Stuart A. Kingsley: 182,291 options with an exercise price of \$23.91 and 15,000 options with an exercise price of \$28.17.

Ellen E. Sheets, M.D.: 20,000 options with an exercise price of \$12.65, 10,000 options with an exercise price of \$24.31, 22,500 options with an exercise price of \$28.39, 18,750 options with an exercise price of \$28.10 and 30,000 options with an exercise price of \$28.17.

Bradley Thomas: 183,333 options with an exercise price of \$35.08.

- (2) The number of options set forth in the column above does not include options that will have vested by September 1, 2007 in the ordinary course consistent with the terms and conditions of those options. The number of such vested options held by the executive officers are: 1,923,294 for Patrick J. Sullivan; 214,584 for Timothy M. Adams; 867,347 for Daniel J. Levangie; 246,666 for John P. McDonough; 140,682 for A. Suzanne Meszner-Eltrich; 118,751 for David Harding; 67,709 for Stuart A. Kingsley; 13,750 for Ellen E. Sheets, M.D.; and 16,667 for Bradley Thomas.
- (3) None of the restricted stock units and performance shares will vest in the ordinary course before the assumed closing date of September 1, 2007.
- (4) The Estimated Dollar Value in this column is based on the equity awards reflected in the first three columns of the table set forth above.

(5) For purposes of the table set forth above, values are calculated (i) with respect to restricted stock units and performance shares by assuming per share merger consideration of \$45.51 (assuming Hologic common stock price of \$55.79 (based on the closing price of Hologic common stock on June 22, 2007) plus \$16.50 in cash) and (ii) with respect to stock options by subtracting the exercise price of the stock option from the assumed per share merger consideration of \$45.51.

99

Cash Payments and Other Benefits Resulting from the Merger/Change of Control

for Cytyc s Executive Officers

	Change of	Estimated Aggregate Dollar		Estimated
	Control Cash	V	alue of Hologic Retention	Aggregate
Name	Payments (1)		Bonus	Dollar Value
Patrick J. Sullivan	\$ 4,830,000	\$	3,000,000(2)	\$ 7,830,000
Timothy M. Adams	1,001,250		375,000(3)	1,376,250
Daniel J. Levangie	2,601,000		1,500,000(2)	4,101,000
John P. McDonough	907,800		340,000(3)	1,247,800
A. Suzanne Meszner-Eltrich	867,750		325,000(3)	1,192,750
David Harding	867,750		325,000(3)	1,192,750
Stuart A. Kingsley	867,750		325,000(3)	1,192,750
Ellen E. Sheets, M.D.	841,050		315,000(3)	1,156,050
Bradley Thomas	867,750		325,000(3)	1,192,750

- (1) Consists of estimated payments of base salary and bonus due at the closing of the merger as a result of a change of control event pursuant to each executive officer s existing change of control agreement, as amended, with Cytyc. Estimated payments were calculated using each executive officer s salary and bonus information as of June 22, 2007. Due to the structure of the merger, Cytyc does not believe these payments would be excess parachute payments under Section 280G of the Code and therefore would not be subject to the excise tax imposed under Section 4999 of the Code.
- (2) Each of Patrick J. Sullivan and Daniel J. Levangie has entered into a retention and severance agreement with Hologic. One-half of the amount set forth above consists of a cash retention bonus and the other one-half consists of the value of Hologic restricted stock units to be received by each of Messrs. Sullivan and Levangie, subject to the terms and conditions (including continued employment with Hologic) set forth in the retention and severance agreements. Under the retention and severance agreements, Messrs. Sullivan and Levangie may receive additional benefits if their employment with Hologic is terminated. The retention and severance agreements are described in this joint proxy statement/prospectus under

 Employment Arrangements with Hologic Hologic Retention and Severance Agreements.
- (3) Hologic has agreed to offer positions with Hologic or the surviving corporation after the completion of the merger to the executive officer listed above and has provided a term sheet to each such executive officer that establishes the basic terms and conditions of such executive officer s employment thereafter. The amount set forth above consists of the cash retention bonus provided for in the term sheet, subject to the terms and conditions (including continued employment with Hologic or the surviving corporation) set forth in the term sheet. Under the term sheet, the executive officer may receive additional benefits if his or her employment with Hologic or the surviving corporation is terminated. The term sheets are described in this joint proxy statement/prospectus under
 Employment Arrangements with Hologic Term Sheets with Certain Other Executives.

Employment Arrangements with Hologic. In connection with the merger, Hologic has agreed to employ each of 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, as of the effective time of the merger. Mr. Sullivan will be employed as chairman and an executive officer of Hologic and will receive an annual salary of \$700,000. Mr. Levangie will be employed as president of Cytyc surgical products which, as of the effective time of the merger, will be a division of Hologic, and will receive an annual salary of \$425,000. For the employment period through December 31, 2007, Messrs. Sullivan and Levangie will be eligible for annual bonus awards as determined in accordance with Cytyc s executive plan. Effective January 1, 2008, Mr. Sullivan will be eligible to receive an annual bonus of up to 150% of his base salary and Mr. Levangie will be eligible to receive an annual bonus of 50% - 100% of his base salary, in each case subject to the terms and conditions of Hologic s executive

bonus plan.

100

Table of Contents

In addition, in connection with entering into the merger agreement, Hologic entered into a retention and severance agreement and a change of control agreement with each of Messrs. Sullivan and Levangie, which would become effective upon and are subject to the completion of the merger.

Hologic Change of Control Agreements. Each change of control agreement of Hologic provides that 30 days after a change of control, Hologic will pay the executive a lump sum in cash equal to three times the executive s annual salary for the fiscal year immediately preceding the change of control plus the executive s highest annual bonus (as defined in the change of control agreements). In addition, the change of control agreements provide that, notwithstanding any provision to the contrary contained in any option, restricted stock agreement or other equity compensation agreement or plan, upon a change of control, all unvested stock options, restricted stock or stock appreciation rights held by the executive will become immediately exercisable for a one-year period following the executive s termination date. The change of control agreements confer no benefits prior to a change of control.

In the event that any payments received by the executive in connection with a change of control are subject to the excise tax imposed upon certain change of control payments under federal tax laws, the agreements provide that Hologic s auditing firm immediately preceding the change of control will compute the excise tax imposed on the executive and Hologic will pay that amount to the executive to provide the executive with a payment that is economically equivalent to the payment he would have received but for the imposition of the excise tax.

Under the terms of the change of control agreements, if the executive remains employed through the one-year anniversary of a change of control, then the executive will also receive a special bonus (the Special Bonus) equal to the sum of the executive s annual salary and the greater of the annual bonus (as defined in the change of control agreement) paid or payable for the most recently completed fiscal year during the employment period or the highest annual bonus. In addition, if termination of an executive s employment occurs within the two-year period following a change of control of Hologic and such termination is by Hologic (or its successor) other than for cause or by the executive for good reason, then the executive will be entitled to receive, among other things: (i) all accrued and unpaid compensation; (ii) the Special Bonus, to the extent not previously paid or accrued; and (iii) continued welfare benefits for a period of one year. In addition, such executive s life insurance policy will be transferred to him.

Hologic Retention and Severance Agreements. Each retention and severance agreement provides that the executive will be paid a retention bonus (\$1,500,000 in the case of Mr. Sullivan and \$1,000,000 in the case of Mr. Levangie) on the date that is two years after the date of closing of the merger (the retention date) if such executive is continuously employed by Hologic in the capacity specified in the retention and severance agreement during that time. Subject to the exceptions set forth in the following paragraph and as more fully set forth in the retention and severance agreement, the retention bonus will not be paid to the executive in the event he ceases to serve in the specified capacity prior to the retention date for any reason, including, without limitation, his death, disability, resignation or termination of his employment by Hologic for any reason. In addition, on the effective date of the retention and severance agreement, Hologic will issue to the executive the specified amount of restricted stock units (\$1,500,000 in the case of Mr. Sullivan and \$500,000 in the case of Mr. Levangie) based upon the fair market value of Hologic common stock. These restricted stock units are subject to the terms and conditions of the applicable restricted stock unit agreement.

However, if the executive is terminated without cause or if the executive notifies Hologic that he has been assigned duties that are inconsistent with the duties typically assigned to other executive officers of Hologic in similar positions (in the event there are no Hologic officers serving in similar positions, then to officers at comparable public companies), and Hologic fails to cure such occurrence within the time period set forth in the agreement, then the executive will be paid the applicable retention bonus and all restricted stock units will immediately and irrevocably vest within fifteen days of such termination.

In consideration for the benefits provided under the retention and severance agreement, each executive has agreed to execute Hologic s intellectual property rights and non-competition agreement.

101

Table of Contents

If the executive s employment is terminated during the term of the retention and severance agreement, then the executive will be entitled to the following compensation and benefits:

If the executive s employment is terminated (i) by Hologic for cause or disability, (ii) by reason of the executive s death or (iii) by the executive other than for good reason, then Hologic will pay to the executive accrued compensation only;

If the executive s employment is terminated by Hologic without cause or by the executive for good reason, then the executive will be entitled to each and all of the following:

all accrued compensation;

a pro rata bonus;

a lump sum equal to the executive base salary plus bonus amount;

continued medical and dental benefits on the same terms and conditions provided to other executives of Hologic for a period of one year from the date of termination; and

out-placement services provided by Crenshaw Associates, Inc. or comparable search firm or, in the alternative, reimburse the executive with \$50,000.

In the event that any payment by Hologic to the executive under the retention and severance agreement would be subject to the excise tax imposed upon certain change of control payments under federal tax laws, the payments will be reduced if and to the extent necessary so that no such payment will be subject to the excise tax.

Term Sheets with Certain Other Executives. Hologic has agreed to offer positions with Hologic or the surviving corporation after the completion of the merger to certain officers and vice presidents of Cytyc. These officers include all of the executive officers of Cytyc. Hologic has provided each officer with term sheets that establish the basic terms and conditions of each officer s employment thereafter. The main provisions of the term sheets are summarized below.

Each term sheet provides that the executive will continue his or her existing salary and will be eligible for a bonus determined in accordance with the Cytyc Executive Incentive Plan, which plan will remain in force until December 31, 2007. The term sheet also contains certain restrictive covenants applicable to the executive, including noncompetition and nonsolicitation restrictions.

Each term sheet provides for a retention bonus. Senior vice presidents will receive a retention bonus in an amount equal to such executive officer s base salary determined as of the date of execution of merger agreement, which will be paid out as follows: 67% on the twelve month anniversary of the closing date of the merger and 33% on the eighteen month anniversary of the closing date of the merger. Vice presidents will receive a retention bonus in an amount equal to the executive officer s annual base salary determined as of the date of execution of merger agreement on the twelve month anniversary of the closing date of the merger. In addition, certain vice presidents are eligible to receive an additional one-time incentive bonus of up to \$100,000 subject to satisfaction of performance objectives.

102

If Hologic terminates the executive without cause or the executive resigns for good reason, then Hologic will pay to the executive:

all accrued obligations;

if the executive is a senior vice president and

if the termination or resignation occurs prior to the twelve month anniversary of the closing date of the merger, then the remaining balance of the executive s retention bonus; or

if the termination or resignation occurs after the twelve month anniversary of the closing date of the merger, but prior to the eighteen month anniversary of the closing date of the merger, then the remaining balance of the executive s retention bonus *plus* six months severance; or

if the termination or resignation occurs after the eighteen month anniversary of the closing date of the merger, then severance in accordance with Hologic s policies;

if the executive is a vice president and

if the termination or resignation occurs prior to the twelve month anniversary of the closing date of the merger, then the retention bonus *plus* six months salary continuation; or

if the termination or resignation occurs after the twelve month anniversary of the closing date of the merger, then severance in accordance with Hologic s policies; and

any other amounts or benefits required to be paid or provided that the executive is eligible to receive under any plan, program, policy or practice, contract or agreement of Hologic.

In addition, Hologic, at its sole expense, will provide the executive with outplacement services the scope and provider of which will be at the highest level provided by Hologic to its peer employees.

Cytyc Employee Stock Purchase Plan. Under the Cytyc Employee Stock Purchase Plan, or Cytyc ESPP, employees of Cytyc and its subsidiaries are eligible to purchase Cytyc common stock at a price equal to the lesser of 85% of the average market price of Cytyc common stock on the first business day of the payment period and 85% of the average market price of Cytyc common stock on the last business day of the payment period. Each employee may purchase annually up to \$25,000 of Cytyc common stock under this plan. Typically, Cytyc common stock is purchased under this plan on the last trading date of any ordinary pay period for employees of Cytyc and its subsidiaries. Under the terms of the merger agreement, each Cytyc ESPP participant soutstanding right to purchase shares of Cytyc common stock under the Cytyc ESPP will terminate on the day immediately prior to the effective time of the merger. All amounts allocated to each participant s account as of that date will be used to purchase from Cytyc whole shares of Cytyc common stock at the applicable price determined under the terms of the Cytyc ESPP. The Cytyc ESPP will terminate immediately following these purchases of Cytyc common stock.

Insurance and Indemnification. The merger agreement provides that, following the merger, Hologic will cause the surviving corporation to assume the obligations with respect to indemnification and exculpation from liabilities, including advancement of expenses, for acts and omissions occurring at or prior to the effective time of the merger now existing in favor of all past and present officers and directors of Cytyc or its subsidiaries to the same extent as provided under Cytyc s certificate of incorporation, bylaws or any indemnification contract between such individuals and Cytyc in effect as of the date of the merger agreement, without further action, as of the effective time of the merger and such

obligations will survive the merger and will continue in full force and effect in accordance with their terms. Hologic also will continue to maintain for a period of six years after the completion of the merger, policies of directors and officers liability insurance with respect to claims arising from acts or omissions occurring prior to the completion of the merger on terms with respect to coverage and amounts no less favorable than the terms of the directors and officers liability insurance policies maintained by Cytyc prior to the completion of the merger, but in no event will Hologic be required to pay in any one year an

103

amount in excess of 200% of the annual premiums paid by Cytyc for such insurance in the last full fiscal year. In the event such coverage cannot be obtained for such amount or less in the aggregate, Hologic will only be obligated to provide such coverage as may be obtained for such aggregate amount.

Accounting Treatment

The merger will be accounted for using the purchase method of accounting under U.S. GAAP. Under the purchase method of accounting, Hologic will be considered the acquirer of Cytyc for accounting purposes and the total purchase price will be allocated to the assets acquired and liabilities assumed from Cytyc based on their fair values as of the date of the completion of the merger and any excess of purchase price over those fair values will be recorded as goodwill. Reported financial condition and results of operations of Hologic issued after completion of the merger will reflect Cytyc s balances and results after completion of the merger, but will not be restated retroactively to reflect the historical financial position or results of operations of Cytyc. Following the completion of the merger, the earnings of the combined company will reflect purchase accounting adjustments, including increased amortization and other expense for acquired tangible and intangible assets. For further discussion of the accounting treatment, please see Unaudited Pro Forma Condensed Combined Financial Information commencing on page 174.

Board of Directors and Management of Hologic Following the Merger; Headquarters

Board of Directors. As of the effective time of the merger, 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.

From the effective time of the merger until immediately prior to Hologic s annual meeting of stockholders to be held in 2009, vacancies on the board of directors of Hologic will be filled as follows: (i) all vacancies created by the cessation of service of a continuing Hologic director (Continuing Hurricane Director as defined in the merger agreement) who is an independent director will be filled by a nominee proposed to the nominating and corporate governance committee by a majority of the remaining continuing Hologic directors, (ii) all vacancies created by the cessation of service of a continuing Cytyc director (Continuing Cyclone Director as defined in the merger agreement) who is an independent director will be filled by a nominee proposed to the nominating and corporate governance committee by a majority of the remaining continuing Cytyc directors, and (iii) all remaining vacancies will be filled by a nominee proposed and selected by the nominating and corporate governance committee.

Committees of the Board of Directors. At the effective time of the merger, the board of directors of Hologic will have an audit, a compensation, a nominating and corporate governance committee and a corporate development committee. Directors serving on each of these committees are required to meet the independence standards under applicable Nasdaq listing standards, and, in addition, each member of the audit committee is required to meet the additional listing standards applicable to audit committee members.

Each of the audit, nominating and corporate governance and corporate development committees will consist of an odd number of directors, consisting of one more continuing Hologic director than continuing Cytyc directors. 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. The chairman of the compensation committee will be a continuing Cytyc director.

104

Chairman; Chairman Emeritus and CEO of Hologic. At the effective time of the merger, Mr. John W. Cumming, Hologic s current chairman and chief executive officer, will serve as the chief executive officer of Hologic, and Mr. Patrick J. Sullivan, currently Cytyc s chairman, chief executive officer and president will serve as chairman of Hologic s 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.

See Interests of Hologic Executive Officers and Directors in the Merger beginning on page 74 and Interests of Cytyc Executive Officers and Directors in the Merger beginning on page 94 for a description of the material interests of executive officers and directors of Hologic and Cytyc, respectively, in the merger that are in addition to, or different than, the interests of stockholders. Additional information about the current directors and executive officers of Hologic can be found in the Proposal 1 Election of Directors, Executive Officers, Share Ownership of Directors, Officers and Certain Beneficial Owners, Executive Compensation and Report of the Compensation Committee on Executive Compensation in the definitive proxy statement for Hologic s 2007 Annual Meeting of stockholders filed with the SEC on January 25, 2007, which is incorporated by reference into this joint proxy statement/prospectus.

See Where You Can Find More Information beginning on page 192.

For additional information about the directors and executive officers of Cytyc, see Information about Cytyc Executive Officers and Directors of Cytyc Corporation and Cytyc Executive and Director Compensation in Annex B to this joint proxy statement/prospectus.

Headquarters. At the effective time of the merger, the location of the corporate offices of Hologic will be 35 Crosby Drive, Bedford, Massachusetts 01730. The headquarters of the Cytyc business will continue to be located in Marlborough, Massachusetts.

Federal Securities Laws Consequences; Stock Transfer Restriction Agreements

All shares of Hologic common stock that Cytyc stockholders receive in the merger will be freely transferable, except for shares of Hologic common stock received by persons who are deemed to be affiliates of Cytyc under the Securities Act of 1933, as amended, and the related SEC rules and regulations (the Securities Act), at the time of the Cytyc special meeting. These affiliates may resell their shares of Hologic common stock only in transactions permitted by Rule 145 under the Securities Act or as otherwise allowed under that Act. Persons who may be deemed to be affiliates of Cytyc for these purposes generally include individuals or entities that control, are controlled by, or are under common control with Cytyc and may include some officers, directors and principal stockholders of Cytyc. The merger agreement requires Cytyc to use commercially reasonable efforts to deliver or cause to be delivered from affiliates of Cytyc to Hologic on or before the effective time of the merger an executed letter agreement to the effect that those persons will not offer, sell or otherwise dispose of any shares of Hologic common stock issued to them in the merger in violation of the Securities Act or the related SEC rules and regulations.

Under Rule 145 of the Securities Act, former Cytyc stockholders who are affiliates of Cytyc at the time of the Cytyc special meeting and who are not affiliates of Hologic after completion of the merger, may sell their Hologic common stock at any time subject to the volume and manner of sale limitations and the current public information requirements of Rule 144 under the Securities Act. Further, so long as such former Cytyc affiliates are not considered affiliates of Hologic following completion of the merger, and a period of at least one year has elapsed from completion of the merger, such former affiliates may sell their Hologic common stock without regard to the volume and manner of sale limitations of Rule 144 under the Securities Act so long as there is adequate current public information available about Hologic in accordance with Rule 144 under the Securities Act. After a period of two years has elapsed from the completion of the merger, and so long as such former

105

affiliates are not, and have not been, for at least three months prior to such sale, affiliates of Hologic, such former affiliates may freely sell their Hologic common stock. Former Cytyc stockholders who become affiliates of Hologic after completion of the merger will be subject to the volume and manner of sale limitations and the current public information requirements of Rule 144 under the Securities Act until each such stockholder is no longer an affiliate of Hologic.

This joint proxy statement/prospectus does not cover any resales of the shares of Hologic common stock to be received by Cytyc stockholders upon completion of the merger, and no person is authorized to make any use of this joint proxy statement/prospectus in connection with a resale.

Appraisal Rights

Cytyc Stockholders. If the merger is completed, record holders of Cytyc common stock who comply with the procedures summarized below will be entitled to appraisal rights. Under Section 262 of the DGCL as a result of completion of the merger, holders of shares of Cytyc common stock with respect to which appraisal rights are properly demanded and perfected and not withdrawn or lost are entitled to have the fair value of their shares at the effective time of the merger (exclusive of any element of value arising from the accomplishment or expectation of the merger) judicially determined and paid to them in cash by complying with the provisions of Section 262. Cytyc is required to send a notice to that effect to each stockholder not less than 20 days prior to the special meeting. This joint proxy statement/prospectus constitutes that notice to you. The following summary does not constitute any legal or other advice, nor does it constitute a recommendation that Cytyc stockholders exercise their right of appraisal under Section 262. The following is a brief summary of Section 262, which sets forth the procedures for demanding statutory appraisal rights. This summary is not a complete statement of the law pertaining to appraisal rights under Section 262 and is qualified in its entirety by reference to Section 262, a copy of the text of which is attached hereto as Annex G. The statutory right of appraisal granted by Section 262 requires strict compliance with the procedures in Section 262. Failure to follow any of these procedures may result in a termination or waiver of appraisal rights under Section 262.

Cytyc stockholders of record who desire to exercise their appraisal rights must satisfy all of the following conditions.

A Cytyc stockholder of record who desires to exercise appraisal rights must: (i) not vote in favor of the adoption of merger agreement; (ii) deliver a written demand for appraisal of his or her shares of Cytyc common stock to the secretary of Cytyc **before the vote on the merger at Cytyc the special meeting;** (iii) hold of record his or her shares of Cytyc common stock on the date the written demand for appraisal is made and must continuously hold his or her shares of Cytyc common stock through the effective time of the merger; and (iv) strictly comply with the procedures set forth in Section 262.

A demand for appraisal must be executed fully and correctly, by or for the stockholder of record, as such stockholder s name appears on the certificates representing shares, or if the shares are held as direct registration shares, as such stockholder s name appears on the books and records of the transfer agent as the owner of shares. If shares are owned of record in a fiduciary capacity, such as by a trustee, guardian or custodian, such demand must be executed by the fiduciary. If shares are owned of record by more than one person, as in a joint tenancy or tenancy in common, such demand must be executed by all joint owners. An authorized agent, including an agent of two or more joint owners, may execute the demand for appraisal for a stockholder of record; however, the agent must identify the record owner and expressly disclose that, in exercising the demand, he is acting as agent for the record owner.

A record owner, such as a broker, who holds shares as a nominee for others may exercise appraisal rights with respect to the shares held for all or less than all beneficial owners of shares as to which the holder is the record owner. In such case the written demand must set forth the number of shares covered by such demand.

106

Table of Contents

Where the number of shares is not expressly stated, the demand will be presumed to cover all shares outstanding in the name of such record owner.

Beneficial owners who are not record owners and who intend to exercise appraisal rights should instruct the record owner to comply strictly with the statutory requirements with respect to the exercise of appraisal rights before the vote on the merger agreement at the Cytyc special meeting. A holder of shares held in street name who desires appraisal rights with respect to such shares must take such actions as may be necessary to ensure that a timely and proper demand for appraisal is made by the record owner of such shares. Shares held through brokerage firms, banks and other financial institutions are frequently deposited with and held of record in the name of a nominee of a central security depositary, such as Cede & Co., The Depository Trust Company s nominee. Any holder of shares desiring appraisal rights with respect to such shares who held his or her shares through a brokerage firm, bank or other financial institution is responsible for ensuring that the demand for appraisal is made by the record holder thereof and are urged to consult with such nominee to determine the appropriate procedures that must be followed. The stockholder should instruct such firm, bank or institution that the demand for appraisal must be made by the record holder of the shares, which might be the nominee of a central security depositary if the shares have been so deposited.

As required by Section 262, a demand for appraisal must be in writing and must reasonably inform Cytyc of the identity of the record holder (which might be a nominee as described above) and of such holder s intention to seek appraisal of such shares.

Stockholders of record who elect to demand appraisal of their shares must mail or deliver their written demand to:

Cytyc Corporation

250 Campus Drive

Marlborough, MA 01752

Attention: Secretary

The written demand for appraisal should specify the stockholder s name and mailing address, the number of shares owned, and that the stockholder is thereby demanding appraisal of his or her shares and such written demand must be received by Cytyc prior to the Cytyc special meeting. Neither voting (in person or by proxy) against, abstaining from voting on or failing to vote on the proposal to adopt the merger agreement will alone suffice to constitute a written demand for appraisal within the meaning of Section 262.

In addition, the stockholder must not vote his or her shares of common stock in favor of the adoption of the merger agreement. Because a proxy that does not contain voting instructions will, unless revoked, be voted in favor of the adoption of the merger agreement, a stockholder who votes by proxy and who wishes to exercise appraisal rights must vote against the adoption of the merger agreement or abstain from voting on the adoption of the merger agreement. Further, the stockholder must continuously hold the shares of record from the date of making the demand through the effective time of the merger.

Within ten days after the effective time of the merger, the surviving corporation will provide notice of such effective time to each stockholder who, in response to this joint proxy statement/prospectus, has timely delivered and properly made a written demand of appraisal as set forth in this section.

At any time within 60 days after the effective time of the merger, any stockholder who has demanded appraisal will have the right to withdraw his or her demand for appraisal and to accept the merger consideration to which such stockholder is entitled pursuant to the merger. After this period, such holder may withdraw his or her demand for appraisal only with the consent of the surviving corporation in the merger.

107

Within 120 days after the effective time of the merger, either the surviving corporation in the merger or any stockholder who has timely and properly demanded appraisal of his or her shares and who has complied with the required conditions of Section 262 and is otherwise entitled to appraisal rights may file a petition in the Delaware Court of Chancery demanding a determination of the fair value of the shares of all stockholders who have properly demanded appraisal. Stockholders seeking to exercise appraisal rights should not assume that the surviving corporation will file a petition with respect to the appraisal of the fair value of their shares or that the surviving corporation will initiate any negotiations with respect to the fair value of those shares. The surviving corporation will be under no obligation to take any action in this regard. Accordingly, it is the obligation of stockholders who wish to seek appraisal of their shares of Cytyc common stock to initiate all necessary action with respect to the perfection of their appraisal rights within the time periods and in the manner prescribed in Section 262.

If no petition for appraisal is filed with the Delaware Court of Chancery within 120 days after the effective time of the merger, stockholders rights to appraisal will cease and all stockholders will be entitled only to receive the merger consideration as provided for in the merger agreement. No petition timely filed in the Delaware Court of Chancery demanding appraisal will be dismissed as to any stockholders without the approval of the Delaware Court of Chancery, and such approval may be conditioned upon such terms as the Delaware Court of Chancery deems just.

Within 120 days after the effective time of the merger, any stockholder who has complied with subsections (a) and (d) of Section 262 will be entitled, upon written request, to receive from the surviving corporation a statement setting forth the total number of shares of Cytyc common stock not voted in favor of the adoption of the merger agreement with respect to which demands for appraisal have been received by Cytyc and the aggregate number of holders of those shares. This statement must be mailed to the stockholder within ten days after the surviving corporation has received the written request or within ten days after the time for delivery of demands for appraisal under subsection (d) of Section 262 has expired, whichever is later.

If a petition for an appraisal is timely filed by a stockholder and a copy thereof is served upon the surviving corporation, the surviving corporation will then be obligated within 20 days to file with the Delaware Register in Chancery a duly verified list containing the names and addresses of all stockholders who have demanded an appraisal of their shares and with whom agreements as to the value of their shares have not been reached. After notice to such stockholders as required by the Court, the Delaware Court of Chancery is empowered to conduct a hearing on such petition to determine those stockholders who have complied with Section 262 and who have become entitled to appraisal rights thereunder. The Delaware Court of Chancery may require the holders of shares of capital stock who demanded payment for their shares to submit their stock certificates to the Delaware Register in Chancery for notation thereon of the pendency of the appraisal proceeding, and if any stockholder fails to comply with such direction, the Delaware Court of Chancery may dismiss the proceedings as to such stockholder.

After determining the stockholders entitled to appraisal of their shares, the Delaware Court of Chancery will determine the fair value of those shares, exclusive of any element of value arising from the accomplishment or expectation of the merger, together with a fair rate of interest, to be paid, if any, upon the amount determined to be the fair value. In determining the fair value of the shares and, if applicable, a fair rate of interest, the Delaware Court of Chancery will take into account all relevant factors. In *Weinberger v. UOP, Inc.*, the Delaware Supreme Court discussed the factors that could be considered in determining fair value in an appraisal proceeding, stating that proof of value by any techniques or methods that are generally considered acceptable in the financial community and otherwise admissible in court—should be considered. Section 262 provides that fair value is to be determined—exclusive of any element of value arising from the accomplishment or expectation of the merger. Delaware courts have decided that the statutory appraisal remedy, depending on factual circumstances, may or may not be a dissenter—s exclusive remedy. The Delaware Court of Chancery will also determine the amount of interest, if any, to be paid upon the amounts to be received by persons whose shares of common stock of Cytyc have been appraised.

108

Table of Contents

Stockholders considering seeking appraisal should bear in mind that the fair value of their shares determined under Section 262 could be more than, the same as or less than the merger consideration they are entitled to receive pursuant to the merger agreement if they do not seek appraisal of their shares. Furthermore stockholders should bear in mind that opinions of investment banking firms as to fairness from a financial point of view are not necessarily opinions as to fair value under Section 262.

The cost of the appraisal proceeding may be determined by the Delaware Court of Chancery and taxed upon the parties as the Delaware Court of Chancery deems equitable in the circumstances. Upon application of a stockholder seeking appraisal rights, the Delaware Court of Chancery may order that all or a portion of the expenses incurred by such stockholder in connection with the appraisal proceeding, including, without limitation, reasonable attorneys fees and the fees and expenses of experts, be charged pro rata against the value of all shares entitled to appraisal. In the absence of such a determination of assessment, each party bears its own expenses.

Any stockholder who has duly demanded an appraisal in compliance with Section 262 will not, after the effective time of the merger, be entitled to vote the shares subject to the demand for appraisal rights for any purpose or be entitled to the payment of dividends or other distributions on those shares (except for any dividends or other distributions payable to stockholders of record as of a record date prior to the effective time of the merger).

In view of the complexity of Section 262 of the DGCL, any Cytyc stockholder who is considering exercising appraisal rights should consult a legal advisor, since failure to comply strictly with the provisions of the DGCL may defeat their appraisal rights.

The foregoing is a summary of Section 262, which sets forth the procedures for demanding statutory appraisal rights. This summary is not intended to be complete and is qualified in its entirety by reference to Section 262, a copy of the text of which is attached hereto as Annex G.

Hologic Stockholders. Hologic stockholders are not entitled to appraisal rights in connection with the merger agreement and the transactions contemplated thereby.

109

MATERIAL UNITED STATES FEDERAL INCOME TAX CONSEQUENCES OF THE MERGER

Cytyc Stockholders

In the opinions of Hogan & Hartson LLP (Hogan & Hartson) and Brown Rudnick Berlack Israels LLP (Brown Rudnick), the following are the anticipated material United States federal income tax consequences to U.S. holders (as defined below) of Cytyc common stock of the receipt of shares of Hologic common stock and cash in exchange for Cytyc common stock pursuant to the merger. This summary is based upon the provisions of the Code, applicable current and proposed United States Treasury Regulations, judicial authorities and administrative rulings and practice, all as in effect as of the date of this registration statement and all of which are subject to change, possibly on a retroactive basis.

For purposes of this discussion, the term U.S. holder means a beneficial owner of Cytyc common stock that is for United States federal income tax purposes: (i) a citizen or resident of the United States; (ii) a corporation, or other entity taxable as a corporation for United States federal income tax purposes, created or organized in or under the laws of the United States or any state thereof or the District of Columbia; (iii) a trust if it (a) is subject to the primary supervision of a court within the United States and one or more United States persons have the authority to control all substantial decisions of the trust or (b) has a valid election in effect under applicable United States Treasury Regulations to be treated as a United States person; or (iv) an estate the income of which is subject to United States federal income tax regardless of its source.

Holders of Cytyc common stock who are not U.S. holders may have different tax consequences than those described below and are urged to consult their own tax advisors regarding the tax treatment to them under United States and non-United States tax laws.

The United States federal income tax consequence to a partner in an entity treated as a partnership, for United States federal income tax purposes, that holds Cytyc common stock generally will depend on the status of the partner and the activities of the partnership. Partners in a partnership holding Cytyc common stock should consult their own tax advisors.

This discussion assumes that a U.S. holder holds Cytyc common stock as a capital asset within the meaning of Section 1221 of the Code. This discussion does not address all aspects of United States federal income taxation that may be relevant to a U.S. holder in light of its personal circumstances or to U.S. holders subject to special treatment under the United States federal income tax laws (for example, insurance companies, dealers or brokers in securities or currencies, traders in securities who elect mark-to-market accounting, tax-exempt organizations, financial institutions, mutual funds, partnerships or other pass-through entities (and persons holding Cytyc common stock through a partnership or other pass-through entity), United States expatriates and stockholders subject to alternative minimum tax, U.S. holders who hold Cytyc common stock as part of a hedging, straddle, conversion or other integrated transaction, a person whose functional currency for United States federal income tax purposes in not the U.S. dollar or U.S. holders who acquired their Cytyc common stock through the exercise of employee stock options or other compensation arrangements). In addition, the discussion does not address any aspect of foreign, state, local, estate or gift taxation that may be applicable to a U.S. holder.

Holders of Cytyc common stock are strongly urged to consult with their own tax advisors as to the tax consequences of the merger with respect to their particular circumstances, including the applicability and effect of the alternative minimum tax and any state, local or foreign and other tax laws and of changes in those laws.

Tax Consequences of the Merger Generally. In the opinions of Hogan & Hartson and Brown Rudnick, the merger will qualify as a reorganization within the meaning of Section 368(a) of the Code. It is a condition to Cytyc s and Hologic s respective obligations to complete the merger that Hogan & Hartson and/or Brown Rudnick will have rendered opinions, dated the closing date of the merger, substantially to the effect that the

110

Table of Contents

merger will be treated as a reorganization within the meaning of Section 368(a) of the Code. These opinions are and will be based on facts, representations and assumptions set forth in the respective opinions and representations set forth in certificates to be received from Hologic and Cytyc. None of the tax opinions given in connection with the merger or as set forth herein will be binding on the Internal Revenue Service, and neither Hologic nor Cytyc intends to request any ruling from the Internal Revenue Service as to the United States federal income tax consequences of the merger.

Consequently, no assurance can be given that the Internal Revenue Service will not assert, or that a court would not sustain, a position contrary to any of those set forth herein. In addition, if any of the facts, representations or assumptions upon which those opinions are based is inconsistent with the actual facts, the United States federal income tax consequences of the merger could be adversely affected.

It is assumed for purposes of the remainder of the discussion that the merger will qualify as a reorganization within the meaning of the Code. Based on this assumption, upon the exchange of Cytyc common stock for a combination of Hologic common stock and cash, a U.S. holder will generally recognize gain (but not loss) in an amount equal to the lesser of:

the amount of gain realized (i.e., the excess, if any, of the sum of the cash and the fair market value of the Hologic common stock a U.S. holder received over its tax basis in the Cytyc common stock surrendered in the merger); and

the amount of cash received in the merger (other than cash received instead of a fractional share of the Hologic common stock). For this purpose, gain or loss must be calculated separately for each identifiable block of shares surrendered in the exchange, and a loss realized on one block of shares may not be used to offset a gain realized on another block of shares. If a U.S. holder has different bases or holding periods in respect of shares of Cytyc common stock, a U.S. holder should consult its tax advisor prior to the exchange with regard to identifying the bases or holding periods of the particular shares of Hologic common stock received in the merger.

Any recognized gain will generally be long-term capital gain if the U.S. holder s holding period with respect to the Cytyc common stock surrendered is more than one year at the effective time of the merger. In some cases, where a U.S. holder actually or constructively owned Hologic common stock immediately before the merger, such cash received in the merger could be treated as having the effect of the distribution of a dividend, under the tests set forth in Section 302 of the Code, in which case such gain would be treated as dividend income. These rules are complex and dependent upon the specific factual circumstances particular to each U.S. holder. Consequently, each U.S. holder that may be subject to those rules should consult its tax advisor as to the application of these rules to the particular facts relevant to such U.S. holder.

Tax Basis and Holding Period. A U.S. holder s aggregate tax basis in the shares of Hologic common stock received in the merger, including any fractional share interests deemed received by the U.S. holder under the treatment described below, will equal its aggregate adjusted tax basis in the Cytyc common stock surrendered in the merger, increased by the amount of taxable gain, if any, recognized in the merger (including any portion of the gain that is treated as a dividend but excluding any gain or loss resulting from the deemed receipt and redemption of a fractional share interest described below) and decreased by the amount of any cash received in the merger (excluding any cash received instead of a fractional share interest). The holding period for the shares of Hologic common stock received in the merger (including a fractional share interest deemed received and redeemed as described below) will include the holding period for the shares of Cytyc common stock surrendered in the merger.

Cash Instead of a Fractional Share. A U.S. holder who receives cash instead of a fractional share of Hologic common stock will be treated as having received the fractional share of Hologic common stock pursuant

111

to the merger and then as having exchanged the fractional share of Hologic common stock for cash in a redemption by Hologic. In general, this deemed redemption will be treated as a sale or exchange, provided the redemption is not essentially equivalent to a dividend. The determination of whether a redemption is essentially equivalent to a dividend depends upon whether and to what extent the redemption reduces the U.S. holder is deemed percentage stock ownership of Hologic. While this determination is based on each U.S. holder is particular facts and circumstances, the Internal Revenue Service has ruled that a redemption is not essentially equivalent to a dividend and will therefore result in sale or exchange treatment in the case of a stockholder of a publicly held company whose relative stock interest is minimal and who exercises no control over corporate affairs if the redemption results in even a minor reduction in the stock interest of the stockholder. As a result, the redemption of a fractional share of Hologic common stock is generally treated as a sale or exchange and not as a dividend, and a U.S. holder generally will recognize capital gain or loss equal to the difference between the amount of cash received and the basis in its fractional share of Hologic common stock as set forth above. This capital gain or loss generally will be long-term capital gain or loss if, as of the effective time of the merger, the holding period for the shares is greater than one year. The deductibility of capital losses is subject to limitations.

Information Reporting and Backup Withholding. Cash payments received in the merger by a U.S. holder may, under certain circumstances, be subject to information reporting and backup withholding (currently at a rate of 28%) of the cash payable to the holder, unless the holder provides proof of an applicable exemption or furnishes its taxpayer identification number, and otherwise complies with all applicable requirements of the backup withholding rules. Any amounts withheld from payments to a U.S. holder under the backup withholding rules are not additional tax and will be allowed as a refund or credit against the U.S. holder s United States federal income tax liability, provided that the required information is timely furnished to the Internal Revenue Service.

Reporting Requirements. A U.S. holder who receives shares of Hologic common stock as a result of the merger will be required to retain records pertaining to the merger and will be required to file with its United States federal income tax return for the year in which the merger takes place a statement setting forth certain facts relating to the merger.

Hologic Stockholders

If you are a Hologic stockholder, the merger will not be taxable to you.

112

REGULATORY AND OTHER APPROVALS REQUIRED FOR THE MERGER

Under the merger agreement, subject to the terms of the merger agreement, each of Hologic and Cytyc has agreed to use its reasonable best efforts to take, or cause to be taken, all actions and to do, or cause to be done, all things necessary, proper or advisable under applicable law to complete the merger and the other transactions contemplated by the merger agreement, including (i) preparing and filing as promptly as practicable with any governmental authority or other third party all documentation to effect all necessary filings, notices, petitions, statements, registrations, submissions of information, applications and other documents; and (ii) obtaining and maintaining all approvals, consents, waivers, licenses, orders, registrations, permits, authorizations, clearances and other confirmations required to be obtained from any governmental authority or other third party that are necessary, proper or advisable to complete the merger and the other transactions contemplated by the merger agreement.

A condition to Hologic s and Cytyc s respective obligations to complete the merger is that any waiting period applicable to the merger under the HSR Act will have expired or been terminated. A further condition is that all required governmental regulatory consents and approvals will have been obtained except those that in the aggregate fall below the materiality standard described in the merger agreement. See The Merger Agreement Conditions to Completion of the Merger beginning on page 128.

Under the HSR Act and the rules and regulations promulgated thereunder, certain transactions, including the merger, may not be completed unless certain waiting period requirements have expired or been terminated. Under the HSR Act, the merger may not be completed until approximately 30 days after the initial filing (unless early termination of this waiting period is granted) or, if the Antitrust Division of the U.S. Department of Justice or the U.S. Federal Trade Commission issues a request for additional information, 30 days after Hologic and Cytyc have substantially complied with such request for additional information (unless this period is shortened pursuant to a grant of earlier termination). Notwithstanding such expiration or termination, at any time before or after the effective time of the merger the U.S. Federal Trade Commission, the U.S. Department of Justice or others could take action under the antitrust laws with respect to the merger, including seeking to enjoin the completion of the merger, to rescind the merger or to conditionally approve the merger upon the divestiture of assets of Hologic or Cytyc or to impose restrictions on the operations of the combined company post-closing. Each of Hologic and Cytyc filed a Pre-Merger Notification and Report Form pursuant to the HSR Act with the Justice Department and the Federal Trade Commission on June 1, 2007. There can be no assurance that the merger will not be challenged on antitrust grounds or, if such a challenge is made, that the challenge will not be successful. In addition, state antitrust authorities and private parties in certain circumstances may bring legal action under the antitrust laws seeking to enjoin the merger or seeking conditions to the completion of the merger. Under the merger agreement, subject to the conditions and limitations described in the merger agreement, Hologic and Cytyc have agreed to take all actions necessary to cause the expiration or termination of the applicable waiting periods under the HSR Act.

Other than the filings described above, neither Hologic nor Cytyc is aware of any regulatory approvals required to be obtained, or waiting periods required to expire, to complete the merger. If Hologic and Cytyc discover that other approvals or waiting periods are necessary, Hologic and Cytyc will seek to obtain or comply with them in accordance with the merger agreement.

113

THE COMPANIES

Hologic

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. Hologic s 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 its 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: Fluoroscan 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.

Hologic s principal executive offices are located at 35 Crosby Drive, Bedford, Massachusetts 01730 and its telephone number is (781) 999-7300.

This joint proxy statement/prospectus incorporates important business and financial information about Hologic from other documents that are not included in or delivered with this joint proxy statement/prospectus. For a list of the documents incorporated by reference in this joint proxy statement/prospectus, see Where You Can Find More Information beginning on page 192.

Nor easter Corp.

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.

Cytyc

Cytyc Corporation is a diversified diagnostic and medical device company that designs, develops, manufactures, and markets innovative and clinically effective diagnostic and surgical products. Cytyc s products cover a range of cancer and women s health applications, including cervical cancer screening, pre-term risk assessment, treatment of excessive menstrual bleeding, radiation treatment of early-stage breast cancer, and radiation treatment of patients with malignant brain tumors. Cytyc operates its business in three segments: domestic diagnostic products, domestic surgical products and international. Cytyc s domestic diagnostics products segment develops and markets the ThinPrep System in the United States primarily for use in cytology testing applications focused on women s health, such as cervical cancer screening, as well as the FullTerm, The Fetal Fibronectin Test and TLi_{IQ} Systems. Cytyc s domestic surgical products segment manufactures 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 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

114

Table of Contents

GliaSite® Radiation Therapy System for the treatment of malignant brain tumors. The domestic diagnostic products segment and the domestic surgical products segment markets these products in the United States. Cytyc s international segment markets its diagnostic and surgical products outside of the United States.

Cytyc s executive offices are located at 250 Campus Drive, Marlborough, Massachusetts 01752, and its telephone number is (508) 263-2900.

For more information about Cytyc, see Annex B to this joint proxy statement/prospectus.

115

THE MERGER AGREEMENT

The following is a summary of the material terms of the merger agreement. This summary does not purport to describe all the terms of the merger agreement and is qualified by reference to the complete merger agreement, a copy of which is attached as Annex A to this joint proxy statement/prospectus and incorporated by reference. The rights and obligations of the parties are governed by the express terms and conditions of the merger agreement and not by this summary or any other information contained in this joint proxy statement/prospectus. All stockholders of Hologic and Cytyc are urged to read the merger agreement carefully and in its entirety.

Explanatory Note Regarding Summary of Merger Agreement and Representations and Warranties in the Merger Agreement

The summary of the terms of the merger agreement is intended to provide information about the terms of the merger. The terms and information in the merger agreement should not be relied on as disclosures about Hologic or Cytyc without consideration of the entirety of public disclosure by Hologic and Cytyc as set forth in their respective public reports with the SEC. The terms of the merger agreement (such as the representations and warranties) govern the contractual rights and relationships and allocate risks between the parties in relation to the merger. In particular, the representations and warranties made by the parties to each other in the merger agreement have been negotiated between the parties with the principal purpose of setting forth their respective rights with respect to their obligation to close the merger should events or circumstances change or be different from those stated in the representations and warranties. The representations and warranties may also be subject to a contractual standard of materiality different from those generally applicable to stockholders under federal securities laws. Matters may change from the state of affairs contemplated by the representations and warranties. Hologic and Cytyc will provide additional disclosure in their public reports to the extent that they are aware of the existence of any material facts that are required to be disclosed under federal securities laws and will update such disclosure as required by federal securities laws.

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 separate existence of Cytyc will cease and 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 of Hologic common stock and \$16.50 in cash without interest. 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 Fractional Shares beginning on page 117. If between the date of the merger agreement and the effective time of the merger there is a reclassification, recapitalization, stock split or combination, exchange or readjustment of shares, or any stock dividend with respect to the capital stock of Hologic or Cytyc, the merger consideration will be appropriately adjusted.

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.

116

Exchange of Shares

Prior to the effective time of the merger, Hologic will appoint American Stock Transfer & Trust Company or another bank or trust company reasonably satisfactory to Cytyc to act as an exchange agent to handle the exchange of Cytyc common stock in the merger for the merger consideration. Promptly after the effective time of the merger, and in any event within ten business days after the effective time of the merger, Hologic will send, or will cause the exchange agent to send, to each holder of Cytyc common stock at the effective time of the merger a letter of transmittal for use in the exchange and instructions explaining how to surrender stock certificates or transfer uncertificated shares of Cytyc common stock to the exchange agent. Holders of Cytyc common stock that surrender their stock certificates or transfer their uncertificated shares to the exchange agent, together with a properly completed letter of transmittal, will be entitled to receive the appropriate merger consideration. You should not return stock certificates with the enclosed proxy card.

After the effective time of the merger, holders of unexchanged shares of Cytyc common stock will not be entitled to receive any dividends or other distributions payable by Hologic after the closing until their shares of Cytyc common stock are surrendered. However, once those shares are surrendered, Hologic will pay or will cause the exchange agent to pay the holder, without interest, any dividends with a record date after the effective time of the merger that were previously paid to Hologic stockholders or are payable at the time the shares of Cytyc common stock are surrendered.

Fractional Shares

Hologic will not issue fractional shares of Hologic common stock in the merger. All fractional shares of Hologic common stock that a holder of shares of Cytyc common stock would otherwise be entitled to receive as a result of the merger will be aggregated. For any fractional share that results from such aggregation, the exchange agent will pay the holder an amount of cash, without interest, equal to the fraction of a share of Hologic common stock to which the Cytyc stockholder would otherwise be entitled in the merger multiplied by the closing sale price of a share of Hologic common stock on the closing date.

Cytyc Stock Options, Restricted Stock Units, Performance Shares, Deferred Shares, Employee Stock Purchase Plan

Under the merger agreement, the board of directors of Cytyc, as soon as practicable following the date of the merger agreement, must adopt resolutions or take any other actions as may be required to effect the following:

each stock option to purchase shares of common stock of Cytyc outstanding immediately prior to the effective time of the merger will be amended and converted into an option to acquire, on the same terms and conditions (after giving effect to any applicable acceleration of vesting thereunder) as were applicable under the Cytyc stock option, the number of shares of Hologic common stock (rounded down to the nearest whole share) equal to the sum of:

the product of (A) the number of shares of Cytyc common stock subject to the Cytyc stock option and (B) the exchange ratio; and

the product of (A) the number of shares of Cytyc common stock subject to the Cytyc stock option and (B) the quotient obtained by dividing (x) \$16.50 by (y) the average of the per share closing sale prices of Hologic common stock for the ten consecutive trading days ending on (and including) the date that is three trading days prior to the closing date,

at an exercise price per share of Hologic common stock (rounded up to the nearest whole cent) equal to the quotient obtained by dividing (i) the aggregate exercise price for the shares of Cytyc common stock subject to the Cytyc stock option by (ii) the aggregate number of shares of Hologic common stock to be subject to the Cytyc stock option after giving effect to the adjustments in this bullet point and the two sub-bullet points immediately above;

117

each restricted stock unit of Cytyc outstanding immediately prior to the effective time of the merger will be amended and converted into the right to receive, on the same terms and conditions (after giving effect to any applicable acceleration of vesting thereunder) as were applicable under the Cytyc restricted stock unit, the number of shares of Hologic common stock (rounded down to the nearest whole share) equal to the sum of:

the product of (A) the number of shares of Cytyc common stock subject to the Cytyc restricted stock unit and (B) the exchange ratio; and

the product of (A) the number of shares of Cytyc common stock subject to the Cytyc restricted stock unit and (B) the quotient obtained by dividing (x) \$16.50 by (y) the average of the per share closing sale prices of Hologic common stock for the ten consecutive trading days ending on (and including) the date that is three trading days prior to the closing date;

each performance share of Cytyc outstanding immediately prior to the effective time of the merger will vest at the target award level in accordance with the terms and conditions applicable under the Cytyc performance share and holders thereof will be entitled to receive the merger consideration on the same basis as all other shares of common stock of Cytyc;

each share of common stock of Cytyc deferred, a share unit, under the Cytyc amended and restated director compensation method plan will be converted into, on the same terms and conditions (after giving effect to any applicable acceleration of vesting thereunder) as are applicable under the Cytyc amended and restated director compensation method plan, a number of shares of Hologic common stock (rounded down to the nearest whole share) equal to the sum of:

the product of (A) the number of shares of Cytyc common stock subject to the Cytyc share unit and (B) the exchange ratio; and

the product of (A) the number of shares of Cytyc common stock subject to the Cytyc share unit and (B) the quotient obtained by dividing (x) \$16.50 by (y) the average of the per share closing sale prices of Hologic common stock for the ten consecutive trading days ending on (and including) the date that is three trading days prior to the closing date;

holders of each share of Cytyc common stock accrued in 2007 for issuance to members of the board of directors of Cytyc on January 1, 2008 will be entitled to receive the merger consideration on the same basis as all other shares of Cytyc common stock. The merger agreement further provides that the board of directors of Cytyc, as soon as practicable following the date of the merger agreement, must adopt any resolutions or take any other actions as may be required to provide that with respect to the Cytyc employee stock purchase plan:

each participant s outstanding right to purchase shares of Cytyc common stock under the Cytyc employee stock purchase plan will terminate on the day immediately prior to the day on which the effective time of the merger occurs, provided that all amounts allocated to each participant s account under the Cytyc employee stock purchase plan as of that date will then be used to purchase from Cytyc whole shares of Cytyc common stock at the applicable price determined under the terms of the Cytyc employee stock purchase plan for the then outstanding offering periods using that date as the final purchase date for each particular offering period; and

the Cytyc employee stock purchase plan will terminate immediately following those purchases of Cytyc common stock. Hologic has agreed that, as soon as practicable following the effective time of the merger, it will deliver to the holders of Hologic stock options, restricted stock units, and share units that were converted from Cytyc stock options, restricted stock units and share units appropriate notices

setting forth those holders rights pursuant to the respective stock incentive plans and the contracts evidencing the grants of those converted options, restricted stock units and share units, as the case may be, which will provide, among other things, that those converted

118

options, restricted stock units, share units and contracts have been assumed by Hologic and will continue in effect on the same terms and conditions (subject to the adjustments described above after giving effect to the merger).

The merger agreement provides that, except as otherwise described above and except to the extent required under the respective terms of the converted options, restricted stock units and share units, as the case may be, all restrictions or limitations on transfer and vesting with respect to such converted options, restricted stock units and share units, to the extent that those restrictions or limitations shall not have already lapsed, and all other terms of thereof, will remain in full force and effect with respect to those converted options, restricted stock units and share units after giving effect to the merger and their assumption by Hologic as set forth above.

Hologic has agreed to take all action necessary for the assumption of the Cytyc stock options, restricted stock units and share units as described above, including the reservation, issuance and listing of a sufficient number of shares of Hologic common stock as is necessary to effectuate the transactions described above. Subject to receiving full cooperation from Cytyc and its independent registered public accounting firm, within one business day of the closing date, Hologic is required to file a registration statement on an appropriate form, or a post-effective amendment to a previously filed registration statement, with respect to the shares of Hologic common stock subject to the above converted options, restricted stock units and share units and, where applicable, is required to use all commercially reasonable efforts to have the registration statement declared effective as soon as practicable after the effective time of the merger.

Representations and Warranties

The merger agreement contains a number of substantially reciprocal representations and warranties made by each of Hologic and Cytyc to the other. The most significant representations and warranties relate to:

due organization, good standing and qualification;
corporate authority to enter into the merger agreement and complete the merger;
adoption of the merger agreement and related matters by the board of directors;
required stockholder vote to approve the merger;
required consents and filings with government entities;
absence of any breach of organizational documents, laws or agreements as a result of the merger;
capitalization;
ownership of subsidiaries;
accuracy and sufficiency of documents filed with the SEC;
conformity of the financial statements with applicable accounting principles and that the financial statements fairly present, in all

Table of Contents 182

material respects, the consolidated financial positions of Hologic and Cytyc, as the case may be;

maintenance of disclosure controls and procedures, sufficiency of internal controls, and the absence of loans to any executive officers or directors;
information supplied for use in this joint proxy statement/prospectus;
absence of certain changes or events;
absence of undisclosed liabilities;
existence of contracts and the absence of violations or defaults thereunder;
compliance with laws and court orders and validity of permits;
119

regulatory compliance;
absence of pending or threatened legal proceedings;
title to properties;
tax matters;
employee benefits plans;
labor matters;
environmental matters;
intellectual property matters;
tax treatment of the transactions contemplated by the merger;
brokers fees;
opinions of financial advisors;
inapplicability of antitakeover statutes to the merger;
inapplicability of each party s stockholder rights agreement to the merger agreement and the transactions contemplated thereby, including the merger;
ownership of a party s stock by affiliates or associates of the other party; and
in the case of Hologic, Hologic s sufficiency of funds.

The representations and warranties set forth in the merger agreement as described above should not be relied upon by any person as statements of factual information. Please see Explanatory Note Regarding Summary of Merger Agreement and Representations and Warranties in the Merger Agreement commencing on page 116.

Significant portions of the representations and warranties of Cytyc and Hologic are qualified as to materiality or material adverse effect. Under the merger agreement, a material adverse effect means, when used in connection with Hologic or Cytyc, any change, effect, event, occurrence or state of facts that is, or would reasonably be expected to be, materially adverse to the business, financial condition or results of operation of that entity and its subsidiaries, taken as a whole, except any change, effect, event, occurrence or state of facts to the extent resulting from or arising in

connection with, any of the following (but no exception set forth in the first four bullet points below applies to the extent such change, effect, event, occurrence or fact has a disproportionate effect on Hologic or Cytyc, as the case may be, and their respective subsidiaries, taken as a whole, relative to other comparable companies in the industry in which Hologic or Cytyc, as the case may be, operates):

changes, circumstances or conditions generally affecting any industry in which Hologic or Cytyc, as the case may be, or any of their respective subsidiaries, participate;

changes generally affecting United States economic conditions or financial markets;

changes resulting from a change in U.S. GAAP;

changes resulting from any act of war or terrorism (or any escalation thereof);

changes, facts, circumstances or conditions that can be shown to have been proximately caused by the announcement or existence of the merger agreement or any transaction contemplated thereby;

any change in the market price of the common stock of Hologic or Cytyc, as the case may be, after May 20, 2007 (excluding any underlying circumstance or effect that may have caused that change in market price);

120

compliance with the terms of, or the taking of any action required by, the merger agreement, or the failure to take any action prohibited by the merger agreement;

any actions taken, or failure to take such action, to which the other party to the merger agreement has expressly consented or requested; or

the receipt of a Nasdaq de-listing notice directly resulting from Cytyc s filing with the SEC of its Quarterly Report on Form 10-Q for the period ending March 31, 2007.

The representations and warranties in the merger agreement do not survive the completion of the merger or the termination of the merger agreement.

Certain Covenants

Hologic and Cytyc have agreed to certain covenants in the merger agreement, including:

Stockholder Meetings. Each of Hologic and Cytyc has agreed to use all commercially reasonable efforts in accordance with and subject to the DGCL, its certificate of incorporation and bylaws and Nasdaq rules to cause a meeting of its stockholders to be called and held as soon as reasonably practicable for the purpose of voting on the adoption of the merger agreement and the transactions contemplated thereby, including the merger, in the case of Cytyc, and for the purpose of securing stockholder approval of the stock issuance in connection with the merger and the charter amendment to increase the authorized shares of capital stock, in the case of Hologic. In addition, each party has agreed to use all commercially reasonable efforts to obtain from its stockholders the required stockholder vote, in the case of Hologic, in favor of the and the charter amendment proposal and the stock issuance proposal, and in the case of Cytyc, in favor of adoption of the merger agreement and the transactions contemplated thereby, including the merger.

No Solicitation. The merger agreement provides that, from the time of the execution of the merger agreement until the completion of the merger or the termination of the merger agreement, subject to certain exceptions, neither Hologic nor Cytyc will, nor will either party authorize or permit any of their respective subsidiaries, or any of their respective directors, officers or employees, investment bankers, attorneys, accountants, consultants or other agents or advisors to, directly or indirectly:

solicit, initiate or take any action to knowingly facilitate or knowingly encourage the submission of any acquisition proposal of the type described below;

enter into, continue or otherwise participate in any discussions or negotiations with, furnish any information relating to itself or any of its subsidiaries to or afford access to the business, properties, assets, books or records of itself or any of its subsidiaries to, otherwise cooperate in any way with, or knowingly assist, participate in, knowingly facilitate or knowingly encourage any effort by any third party seeking to make or who has made an acquisition proposal;

make an adverse recommendation change, which means either of the following as the context may indicate: any recommendation by its board of directors of an acquisition proposal or any failure by its board of directors to make, or any withdrawal or modification in a manner adverse to the other party of, its recommendation to its stockholders that, in the case of Hologic stockholders, they approve the amendment of the Hologic charter and the issuance of Hologic common stock to Cytyc stockholders in the merger, or in the case of Cytyc stockholders, they adopt the merger agreement;

grant any waiver or release under any standstill or similar agreement with respect to any class of equity securities of itself or any of its subsidiaries;

enter into any agreement in principle, letter of intent, term sheet or other similar instrument relating to an acquisition proposal (other than a confidentiality agreement of the sort and in the circumstances described in the following paragraph); or

121

propose publicly or agree to do any of the foregoing related to any acquisition proposal.

Notwithstanding the foregoing, the board of directors of each of Hologic and Cytyc may, prior to the receipt of the relevant stockholder approval, (i) engage in discussions or negotiations with any third party in response to an unsolicited bona fide written acquisition proposal that the party s board of directors has determined in good faith (after consultation with its outside legal counsel and financial advisors of nationally recognized reputation) constitutes or is reasonably likely to lead to a superior proposal (as described and defined below); and (ii) after making such determination furnish to such third party non-public information relating to that party or any of its subsidiaries pursuant to a confidentiality agreement with terms no less favorable than those contained in the existing confidentiality agreement between Hologic and Cytyc, if, in each case, the board of directors of such party determines in good faith by a majority vote, after considering the advice of outside legal counsel, that failing to take such action would be inconsistent with its fiduciary duties under applicable law.

The merger agreement prohibits a party from engaging in such discussions or negotiations or providing such information unless that party has delivered to the other party prior written notice advising the other party that it intends to take such action. The merger agreement also requires that the parties notify each other if any acquisition proposals are presented to either party, and the parties are required to keep each other reasonably informed, on a current basis, of the status and details of any acquisition proposals.

Subject to compliance with the terms of the merger agreement, each party is permitted to take and disclose to its stockholders a position with respect to any acquisition proposal as may be contemplated by Rule 14e-2(a) under the Exchange Act or make a statement required under Rule 14d-9 under the Exchange Act or make any disclosure of factual matters to its stockholders if, in the good faith judgment of its board of directors (after consultation with its outside legal counsel), it is required to disclose in order not to breach its fiduciary duties to its stockholders under applicable law.

An acquisition proposal for Cytyc is any inquiry, proposal or offer relating to, or any third party indication of interest in, (i) any direct or indirect acquisition or purchase of 20% or more of the consolidated net assets of Cytyc and its subsidiaries or 20% or more of any class of equity or voting securities of Cytyc or any of its subsidiaries whose assets, individually or in the aggregate, constitute more than 20% of the consolidated assets of Cytyc; (ii) any tender offer (including a self-tender offer) or exchange offer that, if completed, would result in such third party beneficially owning 20% or more of any class of equity or voting securities of Cytyc or any of its subsidiaries whose assets, individually or in the aggregate, constitute more than 20% of the consolidated assets of Cytyc; or (iii) a merger, consolidation, share exchange, business combination, sale of substantially all of the assets, reorganization, recapitalization, liquidation, dissolution or other similar transaction involving Cytyc or any of its subsidiaries whose assets, individually or in the aggregate, constitute more than 20% of the consolidated assets of that person, in each case, subject to certain exceptions set forth in the merger agreement.

An acquisition proposal for Hologic is any inquiry, proposal or offer relating to, or any third party indication of interest in, (i) any direct or indirect acquisition or purchase of 20% or more of the consolidated net assets of Hologic and its subsidiaries or 20% or more of any class of equity or voting securities of Hologic or any of its subsidiaries that, if completed, would result in the third party beneficially owning 20% or more of any class of equity or voting securities of Hologic; or (ii) any tender offer (including a self-tender offer) or exchange offer that, if completed, would result in such third party beneficially owning 20% or more of any class of equity or voting securities of Hologic or any of its subsidiaries whose assets, individually or in the aggregate, constitute more than 20% of the consolidated assets of Hologic, in each case, subject to certain exceptions set forth in the merger agreement. Notwithstanding the foregoing, Hologic is permitted to engage in acquisition discussions, which includes any inquiries, proposals or offerings relating to a proposed acquisition or purchase by Hologic of 50% or more of any class of equity or voting securities of a third party or any purchase or acquisition of the business or assets of a third party.

122

Table of Contents

A superior proposal is a bona fide, unsolicited written acquisition proposal (which definition is read, for this purpose, without the word inquiry) for at least a majority of the outstanding shares of common stock of Cytyc or Hologic (as the case may be) or a sale or purchase of all or substantially all of the assets of Cytyc or Hologic (as the case may be) on terms that the board of directors of such party determines in good faith by a majority vote, after consultation with its legal advisor and financial advisors of nationally recognized reputation and taking into account such matters deemed relevant in good faith by such board of directors, including among other things, all the terms and conditions of the acquisition proposal, including any break-up fees, expense reimbursement provisions, conditions to completion and long-term strategic considerations, are more favorable from a financial point of view to the stockholders of such party than the merger and for which (i) financing, if a cash transaction (whether in whole or in part), is then fully committed or reasonably determined to be available; and (ii) such proposed transaction is reasonably capable of being completed on the terms set forth in the acquisition proposal, in each case as determined by the board of directors of that party.

Each party has agreed to terminate, and to cause its subsidiaries, advisors, employees and other agents to terminate, any discussions or negotiations with any person with respect to any acquisition proposal that began before the date of the merger agreement.

Board of Directors Covenant to Recommend. The board of directors of Hologic has agreed to recommend the approval by Hologic stockholders of (i) a proposal to be effective immediately prior to the effective time of the merger, to amend the Hologic charter, to increase the authorized number of shares of Hologic common stock and (ii) a proposal to issue shares of Hologic common stock to Cytyc stockholders in the merger on the terms and conditions set forth in the merger agreement. The board of directors of Cytyc has agreed to recommend the approval by Cytyc stockholders of a proposal to adopt the merger agreement and the transactions contemplated thereby, including the merger.

Notwithstanding the foregoing, subject to the terms of the merger agreement, including applicable notice requirements, each party s board of directors can make an adverse recommendation change, other than in response to an acquisition proposal, if (i) it has not received the approval of its stockholders in connection with the merger; and (ii) in response to a material development or change in circumstances occurring or arising after May 20, 2007 that was not known to such party s board of directors as of or prior to May 20, 2007 (which change or development does not relate to an acquisition proposal and which is not, and does not result from, a change in the market price of the common stock of the other party primarily as a result of the announcement of the transactions contemplated by the merger agreement) (referred to as an intervening event), the board of directors of such party determines in good faith (after consultation with, and taking into account the advice of, legal counsel) that, in light of such intervening event, the failure of the board of directors to effect such an adverse recommendation change would result in a breach of its fiduciary duties under applicable law.

In addition, subject to the terms of the merger agreement, including applicable notice requirements, each party and its board of directors can make an adverse recommendation change, in response to an acquisition proposal, and, subject to payment of applicable termination fees, immediately terminate the merger agreement, if (i) it has not received the approval of its stockholders in connection with the merger; (ii) it has received an unsolicited bona fide written acquisition proposal from a third party; (iii) its board of directors has determined in good faith (after consultation with its outside legal counsel and financial advisors of a national recognized reputation and taking into account any adjustments to the terms and conditions of the merger agreement proposed by the other party) that the acquisition proposal constitutes a superior proposal; and (iv) its board of directors, after consultation with outside legal counsel, determines in good faith that failing to take such action would be inconsistent with its fiduciary duties under applicable law.

Unless the merger agreement is otherwise terminated in accordance with its terms, whether or not (i) the Hologic board of directors has made an adverse recommendation change; or (ii) an acquisition proposal has been publicly proposed or announced or otherwise submitted to Hologic or any of its advisors, the Hologic proposals

123

described above must be submitted to Hologic stockholders at a meeting of its stockholders called for these purposes. Unless the merger agreement is otherwise terminated in accordance with its terms, whether or not (i) Cytyc s board of directors has made an adverse recommendation change; or (ii) an acquisition proposal has been publicly proposed or announced or otherwise submitted to Cytyc or any of its advisors, the Cytyc proposals described above must be submitted to Cytyc stockholders at a meeting of its stockholders called for this purpose.

Interim Operations of Hologic and Cytyc. Each of Hologic and Cytyc has undertaken a separate covenant that places restrictions on it and its subsidiaries until the earlier of the effective time and the date the merger agreement is terminated. In general, Hologic and its subsidiaries and Cytyc and its subsidiaries are required to conduct their respective businesses in the ordinary course consistent with past practice and to use all commercially reasonable efforts to preserve intact their respective business organizations and relationships with third parties. The companies have also agreed to some specific restrictions which (subject to exceptions described in the merger agreement) are substantially, but not entirely, comparable, because, in a number of instances, an action is applicable to only one of the companies by nature. The most significant activities that each company has agreed not to do, and not to permit its subsidiaries to do, are as follows:

amend its organizational documents;

split, combine or reclassify its shares of capital stock or those of its subsidiaries;

declare dividends or redeem, repurchase or otherwise acquire or offer to redeem, repurchase or otherwise acquire any of its capital stock or those of its subsidiaries, except for dividends by any of its subsidiaries on a pro rata basis to the equity owners thereof and any transaction between the company and any of its subsidiaries or between its subsidiaries;

issue, deliver, sell or authorize the issuance, delivery or sale of any equity securities, options or other securities convertible into or exchangeable or exercisable for equity securities, except under limited circumstances;

amend the terms of equity securities, options or other securities convertible into or exchangeable or exercisable for equity securities other than in connection with a transaction between the company and any of its subsidiaries or between it subsidiaries;

acquire or dispose of assets, except for acquisitions or dispositions (i) in the ordinary course of business consistent with past practice, (ii) below certain dollar thresholds, (iii) between the company and any of its subsidiaries or between its subsidiaries or (iv) that are identified as permitted acquisitions or dispositions;

other than in connection with permitted acquisitions, make any loans, advances or capital contributions to, or investments in, any other person, other than in the ordinary course of business consistent with past practice or between the company and any of its subsidiaries or between its subsidiaries:

create, incur or assume any indebtedness for borrowed money or guarantees thereof, other than in the ordinary course consistent with past practice, under existing lines of credit for specified purposes, or between the company and any of its subsidiaries or between its subsidiaries;

enter into any agreement that limits or otherwise restricts in any material respect such party, or that would reasonably be expected to limit or restrict the combined company after the effective time of the merger, from engaging or competing in any material line of business;

grant or increase any severance or termination pay or supplemental retirement or post employment benefit to (or amend any existing arrangement with) any director or specified officers of the company or any of its subsidiaries;

increase benefits payable under any existing severance or termination pay policies or employment agreements;

124

enter into any employment, deferred compensation or other similar agreement (or amend any such existing agreement) with any director or specified officers of the company or any of its subsidiaries;

establish, adopt or amend (except as required by applicable law) any collective bargaining, bonus, profit-sharing, thrift, pension, retirement, deferred compensation, compensation, stock option, restricted stock, or other benefit plan or arrangement covering any director or specified officers of the company or any of its subsidiaries;

grant or award any compensation, bonus or other benefits payable to any director or specified officers of the company or any of its subsidiaries;

enter into or amend any provision of the company s certificate of incorporation, bylaws or indemnification contract between any director or specified officers of the company or any of its subsidiaries;

change in any material respect its methods of financial accounting;

revalue any of its assets other than in the ordinary course of business consistent with past practice;

adopt or change accounting methods, principles or practices, except as may be required by U.S. GAAP;

adopt or change any material tax election or settle or compromise any material income tax liability;

adopt or change any material method of tax accounting, other than any method adopted or changed pursuant to a request made by a taxing authority or as required by applicable law;

fail to use commercially reasonable efforts to maintain in full force and effect insurance coverage substantially similar to insurance coverage maintained on the date of the merger agreement;

settle, or offer to propose to settle, any legal proceedings that arise out of the transactions contemplated by the merger agreement; or

agree or commit to do any of the foregoing.

Reasonable Best Efforts Covenant. Hologic and Cytyc have each agreed to use their respective reasonable best efforts to take, or cause to be taken, all actions and to do, or cause to be done, all things necessary, proper or advisable under applicable law to complete the merger and the other transactions contemplated by the merger agreement, including taking all necessary actions to satisfy the closing conditions as promptly as practicable, preparing and filing requisite documents with governmental entities or other third parties and obtaining and maintaining all necessary approvals, consents and authorizations. However, neither Hologic nor Cytyc is required to enter into a settlement or other agreement with any governmental entity in connection with the transactions contemplated by the merger agreement or divest or take any other action with respect to any of its subsidiaries or any of their respective affiliates businesses, assets or properties if the result would reasonably be expected to:

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 Cytyc via the merger (such combined business to be taken as a whole), in such a

manner that either Hologic or Cytyc would not have entered into the merger agreement in the face of such materially and adversely diminished benefits, or

otherwise have a material adverse effect (but ignoring the exception for effects caused by the announcement of the merger in the definition of material adverse effect) after the effective time of the merger on Hologic and its subsidiaries, taken as a whole, which is referred to as a regulatory material adverse effect.

125

Corporate Governance and Other Matters.

Board of Directors. As of the effective time of the merger, 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 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 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 Levangie, current executive vice president of Cytyc and president of Cytyc surgical products.

From the effective time of the merger until immediately prior to Hologic s annual meeting of stockholders to be held in 2009, vacancies on the board of directors of Hologic will be filled as follows: (i) all vacancies created by the cessation of service of a continuing Hologic director (Continuing Hurricane Director as defined in the merger agreement) who is an independent director will be filled by a nominee proposed to the nominating and corporate governance committee by a majority of the remaining continuing Hologic directors; (ii) all vacancies created by the cessation of service of a continuing Cytyc director (Continuing Cyclone Director as defined in the merger agreement) who is an independent director will be filled by a nominee proposed to the nominating and corporate governance committee by a majority of the remaining continuing Cytyc directors; and (iii) all remaining vacancies will be filled by a nominee proposed and selected by the nominating and corporate governance committee. This agreement between the parties will be reflected in the amendments to Hologic s bylaws. The amendment of this provision of Hologic s bylaws will require the affirmative vote of at least 75% of the full board of directors of Hologic. See Hologic Bylaws Amendment beginning on page 155.

Committees of a Board of Directors. At the effective time of the merger, the board of directors of Hologic will have an audit, a compensation, a nominating and corporate governance and a corporate development committee. Directors serving on each of these committees, are required to meet the independence standards under applicable Nasdaq listing standards, and, in addition, each member of the audit committee is required to meet the additional listing standards applicable to audit committee members.

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. 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. The chairman of the compensation committee will be a continuing Cytyc director.

Chairman; Chairman Emeritus and CEO of Hologic. At the effective time of the merger, Mr. John W. Cumming, currently Hologic s chairman and chief executive officer, will serve as the chief executive officer of Hologic, and Mr. Patrick J. Sullivan, currently Cytyc s chairman, chief executive officer and president, will serve as chairman of Hologic s 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.

Headquarters. At the effective time of the merger, the location of the corporate headquarters and principal executive offices of Hologic will be 35 Crosby Drive, Bedford, Massachusetts.

Certain Employee Benefits Matters. The merger agreement provides that Hologic will honor all accrued and vested benefit obligations to and contractual rights of current and former employees of Cytyc and Hologic and their respective subsidiaries, referred to as covered employees, under their respective existing employee plans, to the extent accrued and vested as of the effective time of the merger. Hologic and Cytyc, acting in good faith, will cooperate in reviewing their existing employee plans with a view towards developing appropriate

126

employee benefit and compensation plans, which are referred to as the new benefit plans, after the effective time of the merger, and which among other things: (i) will treat similarly situated covered employees on a substantially equivalent basis, taking into account all relevant factors, including duties, responsibilities, geographic location, tenure and qualifications; and (ii) will not discriminate between covered employees who at the effective time of the merger are covered by Cytyc employee plans, on the one hand, and those covered by Hologic employee plans, on the other hand. Hologic has agreed to adopt the new benefit plans, subject to customary rights to subsequently amend or terminate the plans as Hologic deems appropriate.

The new benefit plans will provide for the following:

eligible participants will receive service credit for purposes of eligibility, participation, vesting and levels of benefits for all periods of employment with Cytyc or Hologic or any of their respective subsidiaries before the effective time of the merger;

all pre-existing conditions or limitations under any new benefit plan which is a welfare plan will be waived to the extent waived under the corresponding plan in which the employee participated immediately before the effective time of the merger; and

credit will be given for the plan year in which the effective time of the merger occurs towards applicable deductibles and annual out-of-pocket limits for expenses incurred before the effective time of the merger.

Please see The Merger Interests of Hologic Executive Officers and Directors in the Merger, beginning on page 74 and The Merger Interests of Cytyc Executive Officers and Directors in the Merger beginning on page 94 for additional information on employee benefits matters covered in the merger agreement.

Indemnification and Insurance. Hologic has agreed to cause the surviving corporation and the surviving corporation has agreed to do the following:

assume the obligations with respect to rights to indemnification and exculpation from liabilities (including advancement of expenses), for acts or omissions occurring at or before the effective time of the merger in favor of the current or former directors or officers of Cytyc or its subsidiaries as provided under Cytyc s certificate of incorporation, bylaws or any indemnification contract between such directors or officers as in effect on May 20, 2007, without further action, as of the effective time of the merger, and those obligations will survive the merger and will continue in full force and effect in accordance with their terms; and

for six years after the effective time of the merger, Hologic will, or will cause the surviving corporation to, provide officers and directors liability insurance in respect of acts or omissions occurring before the effective time of the merger covering each current or former director or officer of Cytyc or its subsidiaries that is currently covered by Cytyc s directors and officers liability insurance policies. This insurance tail coverage must be no less favorable than the Cytyc policy in effect on May 20, 2007, except that Hologic or the surviving corporation, as the case may be, will only be obligated to pay up to 200% of the annual premium paid by Cytyc for such insurance as of May 20, 2007. In lieu of the foregoing, Cytyc may obtain prepaid policies prior to the effective time of the merger that provide the officers and directors of Cytyc with coverage of equivalent amount and on no more favorable terms than the Cytyc policy in effect on May 20, 2007.

Listing of Hologic Stock. Hologic has agreed to use all commercially reasonable efforts to cause the shares of Hologic common stock to be issued in the merger to be listed on the Nasdaq, subject to official notice of issuance. Hologic will continue to use the trading symbol HOLX for the shares of Hologic common stock issuable to the Cytyc stockholders in the merger.

Cooperation with Respect to Financing. Cytyc has agreed to provide on a timely basis, and use all commercially reasonable efforts to cause its officers, employees and advisors to provide on a timely basis, all reasonable cooperation in connection with the arrangement of financing contemplated by the financing commitment letter between the arrangers and Hologic or any alternative financing Hologic may seek in order to complete the merger. For more information regarding the Commitment Letter, please see The Merger Financing of the Merger on page 58.

Certain Other Covenants. The merger agreement contains additional mutual covenants, which include, among other things, agreements by each party to:

take such action required to be taken by such party pursuant to Cytyc s indenture, dated as of March 22, 2004, between Cytyc and U.S. Bank Trust National Association, with respect to Cytyc s 2.25% Convertible Notes due 2024, as may be necessary to complete the merger;

not take any action to jeopardize the intended tax treatment of the merger; and

take all further actions reasonably requested by the other party to render the rights issuable pursuant to the party s stockholder rights agreement inapplicable to the merger and the other transactions contemplated by the merger agreement. In addition, Cytyc has agreed to amend the rights agreement, if necessary, to extend the expiration date of such agreement to expire on a date no earlier than November 16, 2007 (or such later date as the merger agreement may be extended pursuant to its terms).

Conditions to Completion of the Merger

The obligations of each of Hologic and Cytyc to complete the merger are subject to the satisfaction of the following mutual conditions:

approval by the Hologic and Cytyc stockholders of the proposals required to complete the merger (as further described in this joint proxy statement/prospectus);

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, terminated or, where applicable, approval shall have been obtained (except where the failure of the waiting period to expire or terminate or the approval to be obtained would not reasonably be expected to, individually or in the aggregate, materially and adversely affect Cytyc 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 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 Cytyc via the merger (the combined business to be taken as a whole), in such a manner that either Hologic or Cytyc would not have entered into the merger agreement in the face of such materially and adversely diminished benefits; or (ii) otherwise have a regulatory material adverse effect;

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

128

Hologic and Cytyc via the merger (the combined business to be taken as a whole), in such a manner that either Hologic or Cytyc would not have entered into the merger agreement in the face of such materially and adversely diminished benefits; or (ii) otherwise have a regulatory material adverse effect; and

completion of all actions necessary to cause the amended Hologic charter and amended Hologic bylaws to be effective at the effective time of the merger and ensure that the composition of the Hologic board of directors is consistent with the terms of the merger agreement.

The obligations of Hologic to complete the merger are subject to the satisfaction of the following further conditions:

Cytyc shall have performed in all material respects all of its obligations under the merger agreement required to be performed by it at or prior to the effective time of the merger;

the representations and warranties made by Cytyc to Hologic shall be accurate as of the effective time of the merger to the extent specified in the merger agreement;

Hologic shall have received a certificate signed by the chief executive officer of Cytyc stating that the two preceding conditions have been satisfied:

no Cytyc material adverse effect shall have occurred since May 20, 2007 and be continuing;

holders of no greater than 10% of the issued and outstanding shares of Cytyc stock shall have demanded appraisal for such shares in accordance with the DGCL (excluding such holders who have failed to perfect, have withdrawn or otherwise lost such right to appraisal); and

Hologic shall have received an opinion of counsel that the merger will qualify as a reorganization within the meaning of Section 368(a) of the Code, and Hologic, Cytyc and Nor easter Corp. will qualify as parties to a reorganization within the meaning of Section 368(b) of the Code.

The obligations of Cytyc to complete the merger are subject to the satisfaction of the following further conditions:

Hologic shall have performed in all material respects all of its obligations under the merger agreement required to be performed by it at or prior to the effective time of the merger;

the representations and warranties made by Hologic to Cytyc shall be accurate as of the effective time of the merger to the extent specified in the merger agreement;

Cytyc shall have received a certificate signed by the chief executive officer of Hologic stating that the two preceding conditions have been satisfied;

no Hologic material adverse effect shall have occurred since May 20, 2007 and be continuing; and

Cytyc shall have received an opinion of counsel that the merger will qualify as a reorganization within the meaning of Section 368(a) of the Code, and Hologic, Cytyc and Nor easter Corp. will qualify as parties to a reorganization within the meaning of Section 368(b) of the Code.

Termination

Right to Terminate. The merger agreement may be terminated at any time before the effective time of the merger in any of the following ways:

(a) by mutual written agreement of Hologic and Cytyc;

129

(b) by either Hologic or Cytyc if:

the merger has not been completed by November 16, 2007 (provided, that this right to terminate is not available to any party whose breach of any provision of the merger agreement results in the failure of the merger to be completed by such date);

there is any applicable law that makes the completion of the merger illegal or otherwise prohibited or enjoins either party from completing the merger and such enjoinment shall have become final and nonappealable;

Cytyc stockholders fail to adopt the merger agreement and the transactions contemplated thereby, including the merger, at the Cytyc special meeting; or

Hologic stockholders fail to approve the amendment to the Hologic charter and the issuance of Hologic common stock to Cytyc stockholders in the merger at the Hologic special meeting;

(c) by Hologic:

if the Cytyc board of directors has made an adverse recommendation change;

if Cytyc (directly or indirectly, through any officer, director, banker or counsel of Cytyc) has willfully and materially breached its covenant not to solicit any acquisition proposal as described under Certain Covenants No Solicitation beginning on page 121 or its covenant to use all commercially reasonable efforts to cause a meeting of its stockholders to be held to vote on the adoption of the merger agreement and the transactions contemplated thereby, including the merger;

if a breach of any representation or warranty or failure to perform any covenant or agreement on the part of Cytyc has occurred that (i) would cause any closing condition set forth in the first three bullet points of the second paragraph under Conditions to Completion of the Merger beginning on page 128 not to be satisfied, and (ii) is not capable of being cured prior to November 16, 2007, or, if capable of being cured, has not been cured by Cytyc within 30 days following receipt of written notice of such breach or failure to perform from Hologic; or

immediately prior to Hologic entering into a definitive agreement with respect to a superior proposal, provided that (i) Hologic has not materially breached or violated the terms of the merger agreement relating to its covenant not to solicit any acquisition proposal or covenants in connection with a superior proposal (or any acquisition proposal that was a precursor thereto); (ii) the board of directors of Hologic has determined to terminate the merger agreement subject to and in accordance with its terms in connection with a superior proposal and has authorized Hologic to enter into a definitive agreement for a superior proposal; (iii) immediately prior to the termination, Hologic pays Cytyc the Cytyc rejection fee; and (iv) immediately following the termination, Hologic enters into such definitive agreement to effect such superior proposal. See Certain Covenants No Solicitation beginning on page 121; Certain Covenants Board of Directors Covenant to Recommend beginning on page 123; and Termination Fees beginning on page 131.

(d) by Cytyc:

if the Hologic board of directors has made an adverse recommendation change;

if Hologic (directly or indirectly, through any officer, director, banker or counsel of Hologic) has willfully and materially breached its covenant not to solicit any acquisition proposal as described under Certain Covenants No Solicitation beginning on page 121 or its covenant to use all commercially reasonable efforts to cause a meeting of its stockholders to be held to vote on the proposals to amend the Hologic charter and to issue shares of Hologic common stock to Cytyc stockholders in the merger;

130

Table of Contents

if a breach of any representation or warranty or failure to perform any covenant or agreement on the part of Hologic has occurred that (i) would cause any closing condition set forth in the first three bullet points of the third paragraph under Conditions to Completion of the Merger not to be satisfied, and (ii) is not capable of being cured prior to November 16, 2007, or, if capable of being cured, has not been cured by Hologic within 30 days following receipt of written notice of such breach or failure to perform from Cytyc; or

immediately prior to Cytyc entering into a definitive agreement with respect to a superior proposal, provided that (i) Cytyc has not materially breached or violated the terms of the merger agreement relating to its covenant not to solicit any acquisition proposal or covenants in connection with a superior proposal (or any acquisition proposal that was a precursor thereto); (ii) the board of directors of Cytyc has determined to terminate the merger agreement subject to and in accordance with its terms in connection with a superior proposal and has authorized Cytyc to enter into a definitive agreement for a superior proposal; (iii) immediately prior to the termination, Cytyc pays Hologic the Hologic rejection fee; and (iv) immediately following the termination, Cytyc enters into such definitive agreement to effect such superior proposal. See Certain Covenants No Solicitation beginning on page 121; Certain Covenants Board of Directors Covenant to Recommend beginning on page 123; and Termination Fees beginning on page 131.

If the merger agreement is validly terminated, the merger agreement will become void and of no effect without any liability of any party to the other party to the merger agreement (except as provided in Termination Fees, below) unless the party is in willful breach of its obligations.

Termination Fees

Termination Fee Payable by Hologic. In the event that (i) Hologic engages in negotiations or discussions with any third party that has made an unsolicited bona fide written acquisition proposal that Hologic s board of directors has determined in good faith (after consultation with outside legal counsel and financial advisors of nationally recognized reputation) constitutes or is reasonably likely to lead to a superior proposal and that acquisition proposal has been made directly to the stockholders of Hologic generally or shall have otherwise become publicly known or any person shall have publicly announced an intention to make an acquisition proposal; and (ii) the merger agreement is terminated because Hologic s stockholders fail to approve the amendment to the Hologic charter and the issuance of Hologic common stock to Cytyc stockholders in the merger at the Hologic special meeting, then Hologic has agreed to pay a fee of \$33 million to Cytyc, referred to as the Cytyc reduced fee, within two business days of such termination; provided, that if within 12 months of such termination, (A) Hologic merges with or into or is acquired by a third party; (B) a third party acquires more than 50% of the total assets of Hologic and its subsidiaries, taken as a whole; (C) a third party acquires more than 50% of the outstanding shares of Hologic common stock; or (D) Hologic or any of its subsidiaries enter into an agreement providing for any of the foregoing, Hologic will pay Cytyc a fee equal to the difference between \$100 million and the amount of any previously paid Cytyc reduced fee.

Hologic has agreed to pay a fee of \$100 million to Cytyc, referred to as the Cytyc rejection fee, if the merger agreement is terminated:

by either Hologic or Cytyc if Hologic s stockholders fail to approve the proposals to amend the Hologic charter and issue Hologic common stock to Cytyc stockholders in the merger (if there has been an adverse recommendation change by Hologic s board of directors, whether or not such adverse recommendation change has been withdrawn, modified or changed);

by Hologic immediately prior to Hologic entering into a definitive agreement with respect to a superior proposal, provided that, as explained in paragraph (c) in Right to Terminate above, Hologic is not permitted to terminate the merger agreement to enter into an agreement for a superior proposal unless (i) Hologic has not materially breached or violated the terms of the merger agreement relating to its covenant not to solicit any acquisition proposal or covenants in connection with a superior proposal (or

131

Table of Contents

any acquisition proposal that was a precursor thereto), (ii) the board of directors of Hologic has determined to terminate the merger agreement subject to and in accordance with its terms in connection with a superior proposal and has authorized Hologic to enter into a definitive agreement for a superior proposal, (iii) immediately prior to the termination, Hologic pays Cytyc the Cytyc rejection fee and (iv) immediately following the termination, Hologic enters into such definitive agreement to effect such superior proposal;

by Cytyc (i) if the board of directors of Hologic makes an adverse recommendation change or (ii) in the event of a willful and material breach by Hologic (directly or indirectly, through any director, officer, banker or counsel of Hologic) of either the no solicitation provisions of the merger agreement, as described in Certain Covenants No Solicitation beginning on page 121, or the provisions of the merger agreement that require Hologic to use all commercially reasonable efforts to cause a stockholders meeting to be held to vote on the proposals to amend the Hologic charter and issue Hologic common stock to Cytyc stockholders in the merger;

(i) by either Hologic or Cytyc if the merger is not completed by November 16, 2007, (ii) by either Hologic or Cytyc if Hologic s stockholders fail to approve the proposals to amend the Hologic charter and issue of Hologic common stock to Cytyc stockholders in the merger, or (iii) by Cytyc if Hologic breaches any representation or warranty or fails to perform any covenant or agreement set forth in the merger agreement that (A) causes any closing condition set forth in the first three bullet points of the third paragraph under Conditions to Completion of the Merger, above, not to be satisfied, and (B) is not capable of being cured prior to November 16, 2007, or, if capable of being cured, has not been cured by Hologic within 30 days following receipt of written notice of such breach or failure to perform from Cytyc, and in each case, only if the following two conditions are met:

prior to the Hologic special meeting an acquisition proposal has been made to Hologic or has been made directly to the stockholders of Hologic generally or has otherwise become publicly known or any person has publicly announced an intention to make an acquisition proposal; and

within 12 months of the termination of the merger agreement, (i) Hologic merges with or into or is acquired by a third party, (ii) a third party acquires more than 50% of the total assets of Hologic and its subsidiaries, taken as a whole, (iii) a third party acquires more than 50% of the outstanding shares of Hologic common stock or (iv) Hologic or any of its subsidiaries enter into an agreement providing for any of the foregoing.

Termination Fee Payable by Cytyc. In the event that (i) Cytyc engages in negotiations or discussions with any third party that has made an unsolicited bona fide written acquisition proposal that Cytyc s board of directors has determined in good faith (after consultation with outside legal counsel and financial advisors of nationally recognized reputation) constitutes or is reasonably likely to lead to a superior proposal and that acquisition proposal has been made directly to the stockholders of Cytyc generally or shall have otherwise become publicly known or any person shall have publicly announced an intention to make an acquisition proposal; and (ii) the merger agreement is terminated because Cytyc s stockholders fail to adopt the merger agreement at the Cytyc special meeting, then Cytyc has agreed to pay a fee of \$50 million to Hologic, referred to as the Hologic reduced fee, within two business days of such termination; provided, that if within 12 months of such termination, Cytyc (A) merges with or into or is acquired by a third party; (B) a third party acquires more than 50% of the total assets of Cytyc and its subsidiaries, taken as a whole, (C) a third party acquires more than 50% of the outstanding shares of Cytyc common stock; or (D) Cytyc or any of its subsidiaries enter into an agreement providing for any of the foregoing, Cytyc will pay Hologic a fee equal to the difference between \$150 million and the amount of any previously paid Hologic reduced fee.

Cytyc has agreed to pay a fee of \$150 million to Hologic, referred to as the Hologic rejection fee, if the merger agreement is terminated:

by either Hologic or Cytyc if Cytyc s stockholders fail to adopt the merger agreement (if there has been an adverse recommendation change by Cytyc s board of directors, whether or not such adverse recommendation change has been withdrawn, modified or changed);

132

Table of Contents

by Cytyc immediately prior to Cytyc entering into a definitive agreement with respect to a superior proposal, provided that, as explained in paragraph (d) in Right to Terminate above, Cytyc is not permitted to terminate the merger agreement to enter into an agreement for a superior proposal unless (i) Cytyc has not materially breached or violated the terms of the merger agreement relating to its covenant not to solicit any acquisition proposal or covenants in connection with a superior proposal (or any acquisition proposal that was a precursor thereto), (ii) the board of directors of Cytyc has determined to terminate the merger agreement subject to and in accordance with its terms in connection with a superior proposal and has authorized Cytyc to enter into a definitive agreement for a superior proposal, (iii) immediately prior to the termination, Cytyc pays Hologic the Hologic rejection fee and (iv) immediately following the termination, Cytyc enters into such definitive agreement to effect such superior proposal;

by Hologic (i) if the board of directors of Cytyc makes an adverse recommendation change or (ii) in the event of a willful and material breach by Cytyc (directly or indirectly, through any director, officer, banker or counsel of Cytyc) of either the no solicitation provisions of the merger agreement, as described in Certain Covenants No Solicitation beginning on page 121, or the provisions of the merger agreement that require Cytyc to use all commercially reasonable efforts to cause a stockholders meeting to be held to vote on the proposal to adopt the merger agreement;

(i) by either Hologic or Cytyc if the merger is not completed by November 16, 2007, (ii) by either Hologic or Cytyc if Cytyc s stockholders fail to adopt the merger agreement, or (iii) by Hologic if Cytyc breaches any representation or warranty or fails to perform any covenant or agreement set forth in the merger agreement that (A) causes any closing condition set forth in the first three bullet points of the second paragraph under — Conditions to Completion of the Merger, above, not to be satisfied, and (B) is not capable of being cured prior to November 16, 2007, or, if capable of being cured, has not been cured by Cytyc within 30 days following receipt of written notice of such breach or failure to perform from Hologic, and in each case, only if the following two conditions are met:

prior to the Cytyc special meeting an acquisition proposal has been made to Cytyc or has been made directly to the stockholders of Cytyc generally or has otherwise become publicly known or any person has publicly announced an intention to make an acquisition proposal; and

within 12 months of the termination of the merger agreement, (i) Cytyc merges with or into or is acquired by a third party, (ii) a third party acquires more than 50% of the total assets of Cytyc and its subsidiaries, taken as a whole, (iii) a third party acquires more than 50% of the outstanding shares of Cytyc common stock or (iv) Cytyc or any of its subsidiaries enter into an agreement providing for any of the foregoing.

Other Expenses

Except as described above (and subject to an exception relating to the payment of (i) filing fees due in connection with filings required under the HSR Act or (ii) fees and expenses incurred in respect of the printing, filing and mailing of this joint proxy statement/prospectus, each of which will be shared equally by the parties), all costs and expenses incurred in connection with the merger agreement, the merger and the other related transactions will be paid by the party incurring such costs or expenses.

Amendments; Waivers

Any provision of the merger agreement may be amended before the effective time of the merger if, but only if, the amendment is in writing and is signed by each party to the merger agreement, provided that after the stockholders of either Hologic or Cytyc have approved the applicable proposals set forth in this joint proxy statement/prospectus, any amendment that requires stockholder approval may not be made without that approval. Any provision of the merger agreement may be waived before the effective time of the merger if, but only if, such waiver is in writing and is signed by each party against whom the waiver is to be effective.

133

THE HOLOGIC SPECIAL MEETING

The Hologic board of directors is using this joint proxy statement/prospectus to solicit proxies from holders of shares of Hologic common stock on the Hologic record date for use at the special meeting of Hologic stockholders. Hologic is first mailing this joint proxy statement/prospectus and accompanying form of proxy to Hologic stockholders on or about [], 2007.

Date, Time and Place

The special meeting of Hologic stockholders will be held on [], 2007 at 9:00 a.m., local time, at Hologic s principal executive offices located at 35 Crosby Drive, Bedford, Massachusetts 01730.

Purpose of the Hologic Special Meeting

At the Hologic special meeting, Hologic stockholders will be asked to consider and vote upon the following proposals:

- 1. to approve an amendment of 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 shares to 300,000,000 shares, as described in Hologic Charter Amendment beginning on page 143;
- 2. to approve the issuance of shares of Hologic common stock to Cytyc stockholders on the terms and subject to the conditions of the merger agreement, as described in The Merger Agreement Structure of the Merger beginning on page 116;
- 3. to approve the Hologic, Inc. Senior Executive Short-Term Incentive Plan, as described in Approval of Hologic, Inc. Senior Executive Short-Term Incentive Plan beginning on page 143;
- 4. to approve an amendment to Hologic s Second Amended and Restated 1999 Equity Incentive Plan to increase the number of shares issuable thereunder by 4,000,000 shares, as described in Amendment to Hologic s Second Amended and Restated 1999 Equity Incentive Plan beginning on page 145;
- 5. if submitted to a vote of Hologic stockholders, to approve any adjournment of the Hologic special meeting, including, if necessary, to solicit additional proxies in favor of any of the foregoing proposals, as described in Proposal to Adjourn Hologic Special Meeting beginning on page 155.

Board Recommendations

The Hologic board of directors has unanimously determined that the merger agreement and the transactions contemplated by it, including the merger, are advisable to and in the best interests of Hologic and its stockholders. The Hologic board of directors unanimously recommends that the Hologic stockholders vote **FOR** the amendment to the Hologic charter, **FOR** the issuance of shares 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 Hologic s Second Amended and Restated 1999 Equity Incentive Plan, and **FOR** the approval of the adjournment of the special meeting, including, if necessary, in order to solicit additional proxies in favor of any of the foregoing proposals.

134

Hologic Record Date; Shares Entitled to Vote

The Hologic board of directors has fixed the close of business on [], 2007 as the record date for Hologic stockholders entitled to notice of and to vote at the Hologic special meeting of Hologic stockholders or any adjournment or postponement of the Hologic special meeting.

The only outstanding voting securities of Hologic are the shares of Hologic common stock. Only holders of record of the shares of Hologic common stock on the Hologic record date are entitled to notice of and to vote at the Hologic special meeting. Under the Hologic charter, each share of Hologic common stock is entitled to one vote on all matters submitted to Hologic stockholders.

On the Hologic record date, there were approximately [] outstanding shares of Hologic common stock entitled to vote at the Hologic special meeting. Votes are exercisable in person, through the Internet, by telephone or by a properly executed and delivered proxy card with respect to the Hologic special meeting as described in Voting of Proxies beginning on page 137.

Quorum Requirement

Under Delaware law and the Hologic bylaws, a quorum of Hologic stockholders at the special meeting is necessary to transact business at the Hologic special meeting. The presence of holders representing at least a majority of the votes of all outstanding Hologic common stock entitled to vote at the Hologic special meeting, whether present in person or by properly executed and delivered proxy, will constitute a quorum for the transaction of business at the Hologic special meeting.

All shares of Hologic common stock represented in person or by proxy at the Hologic special meeting, including abstentions and broker non-votes (as defined below) will be treated as present for purposes of determining the presence or absence of a quorum at the Hologic special meeting.

Under NASD rules, brokers who hold shares in street name for customers have the authority to vote on certain routine proposals when they have not received instructions from beneficial owners. Under NASD rules, such brokers are precluded from exercising their voting discretion with respect to the approval and adoption of non-routine matters, such as the amendment to the Hologic charter and the issuance of shares of Hologic common stock in the merger, the approval of the Hologic, Inc. Senior Executive Short-Term Incentive Plan or the approval of the amendment to Hologic s Second Amended and Restated 1999 Equity Incentive Plan. Therefore, absent specific instructions from the beneficial owner of such shares, brokers are not empowered to vote such shares with respect to the approval of these non-routine proposals.

Stock Ownership of Hologic Executive Officers and Directors

On [], 2007, the Hologic record date, executive officers and directors of Hologic and their affiliates beneficially owned and were entitled to vote approximately [] shares of Hologic common stock (excluding exercisable options). These shares represent approximately []% of the aggregate voting power of Hologic shares entitled to vote at the Hologic special meeting.

Votes Required to Approve Hologic Proposals

Each of the Hologic proposals to be considered at the Hologic special meeting requires the vote percentage described below. You may vote for or against any or all of the proposals submitted at the Hologic special meeting or abstain from voting.

Required Vote for Hologic Charter Amendment (Proposal 1). The affirmative vote of at least a majority of the outstanding shares of Hologic common stock entitled to vote on the proposal, is required to approve the

135

amendment to the Hologic charter. Consequently, an abstention from voting or a broker non-vote on Proposal 1 will have the effect of a vote against Proposal 1.

Required Vote for Issuance of Hologic Common Stock in the Merger (Proposal 2). The approval of the issuance of shares of Hologic common stock to Cytyc stockholders in the merger requires the affirmative vote of a majority of the votes cast in person or by proxy at the Hologic special meeting. Abstentions and broker non-votes are not deemed to be votes cast. Accordingly, assuming a quorum is present, an abstention or a failure to vote, including broker non-votes, will have no effect in determining whether the issuance of shares of Hologic common stock in the merger will be approved.

Required Vote for the Hologic, Inc. Senior Executive Short-Term Incentive Plan (Proposal 3). The approval of the Hologic, Inc. Senior Executive Short-Term Incentive Plan requires the affirmative vote of a majority of the votes cast in person or by proxy at the Hologic special meeting. Abstentions and broker non-votes are not deemed to be votes cast. Accordingly, assuming a quorum is present, the abstention or failure to vote, including broker non-votes, will have no effect in determining whether the Hologic, Inc. Senior Executive Short-Term Incentive Plan will be approved.

Required Vote for the Amendment to the Hologic, Inc. Second Amended and Restated 1999 Equity Incentive Plan (Proposal 4). The approval of the amendment to the Hologic s Second Amended and Restated 1999 Equity Incentive Plan requires the affirmative vote of a majority of the votes cast in person or by proxy at the Hologic special meeting. Abstentions and broker non-votes are not deemed to be votes cast. Accordingly, assuming a quorum is present, the abstention or failure to vote, including broker non-votes, will have no effect in determining whether the amendment to the Hologic s Second Amended and Restated 1999 Equity Incentive Plan will be approved.

Required Vote for Adjournment of the Hologic Special Meeting (Proposal 5). The approval of any adjournment of the Hologic special meeting, including, if necessary, to solicit additional proxies if there are not sufficient votes for any of the foregoing proposals requires the affirmative vote of a majority of the votes cast in person or by proxy, whether or not a quorum is present at the Hologic special meeting.

Each of Proposal 1 and Proposal 2 are conditioned upon the other and the approval of each such proposal is a condition to the completion of the merger. Neither the issuance of Hologic common stock in connection with the merger nor the amendment the Hologic charter will take place or be effective unless both of these proposals are approved by the Hologic stockholders. Therefore, the merger cannot be completed without the approval of both Proposal 1 and Proposal 2.

Voting Procedures Stockholders of Record and Beneficial Owners

You are a stockholder of record if your shares of Hologic common stock are registered directly in your own name with Hologic s transfer agent, American Stock Transfer and Trust Company, Inc. (AST). You are a beneficial owner if a brokerage firm, bank, trustee or other agent (called a nominee) holds your stock. This is often called ownership in street name because your name does not appear in the records of AST.

136

Voting of Proxies

Your vote is important. Accordingly, please sign, date and return the enclosed proxy card whether or not you plan to attend the Hologic special meeting in person.

By Mail. A proxy card is enclosed for your use. To submit your proxy by mail, Hologic asks that you complete and sign the accompanying proxy and, if you are a stockholder of record, return it to MacKenzie Partners, Inc. as soon as possible in the enclosed postage-paid envelope or pursuant to the instructions set out in the proxy card. If you hold your shares in street name, please refer to your proxy card or the information provided to you by your bank, broker, custodian or record holder. When the accompanying proxy is returned properly executed, the shares of Hologic common stock represented by it will be voted at the Hologic special meeting in accordance with the instructions contained in the proxy.

If proxies are returned properly executed without indication as to how to vote, the Hologic common stock represented by each such proxy will be considered to be voted in favor of all matters for consideration at the Hologic special meeting as follows: **FOR** the proposal to amend the Hologic charter; **FOR** the proposal to approve the issuance of shares of Hologic common stock to Cytyc stockholders in the merger; **FOR** the proposal to adopt the Hologic, Inc. Senior Executive Short-Term Incentive Plan; **FOR** the proposal to approve the amendment to the Hologic s Second Amended and Restated 1999 Equity Incentive Plan; and **FOR** the proposal to adjourn the special meeting, including, if necessary, to permit further solicitation of the proxies on any of the foregoing proposals.

Voting in Person. If you wish to vote in person at the Hologic special meeting, a ballot will be provided at the Hologic special meeting. However, if your shares are held in street name by your bank, broker, custodian or other record holder, you must obtain a proxy, executed in your favor, from the holder of record to be able to vote at the meeting.

By Telephone. If you are a stockholder of record, you may also submit your proxy by telephone by dialing the toll-free telephone number on your proxy card and providing the unique control number indicated on the enclosed proxy card. Telephone voting is available 24 hours a day, seven days a week, and will be accessible until 11:59 p.m., New York City time, on [], 2007. Easy-to-follow voice prompts allow you to submit your proxy and confirm that your instructions have been properly recorded. If you hold your shares in street name, please refer to your proxy card or the information provided by your bank, broker, custodian or record holder for information on telephone voting. If you are located outside the United States, Canada and Puerto Rico, see your proxy card or other materials for additional instructions. If you submit your proxy by telephone, you do not need to return your proxy card.

By Internet. If you are a stockholder of record, you may also choose to submit your proxy on the Internet. The website for Internet voting and the unique control number you will be required to provide are on your proxy card. Internet voting is available 24 hours a day, seven days a week, and will be accessible until 11:59 p.m., New York City time, on [], 2007. If you hold your shares in street name, please refer to your proxy card or the information provided by your bank, broker, custodian or record holder for information on Internet voting. As with telephone voting, you will be given the opportunity to confirm that your instructions have been properly recorded. If you submit your proxy on the Internet, you do not need to return your proxy card.

137

Revocation of Proxies

You have the power to revoke your proxy at any time before your proxy is voted at the Hologic special meeting. Your proxy can be revoked 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 Hologic special meeting (or, if the special meeting is adjourned or postponed, attend the adjourned or postponed meeting) and vote in person which will automatically cancel any proxy previously given, but your attendance alone will not revoke any proxy previously given.

If you choose either of the first two methods, your notice of revocation or new proxy must be received by Hologic s corporate secretary no later than the beginning of the Hologic special meeting or, if the special meeting is adjourned or postponed, before the adjourned or postponed meeting is actually held.

If your shares are held in street name, you may change your vote by submitting new voting instructions to your broker or nominee.

Solicitation of Proxies

This solicitation is made on behalf of the Hologic board of directors and Hologic will pay the costs of soliciting and obtaining proxies, including the cost of reimbursing banks and brokers for forwarding proxy materials to their principals. Proxies may be solicited, without extra compensation, by Hologic s officers and employees by mail, telephone, fax, personal interviews or other methods of communication. Hologic has engaged MacKenzie Partners, Inc. to assist it in the distribution and solicitation of proxies at a fee of approximately \$15,000, plus expenses. Hologic and Cytyc will also reimburse brokers and other custodians, nominees and fiduciaries for their expenses in sending these materials to you and getting your voting instructions.

Do not send any stock certificates with your proxy cards.

138

THE CYTYC SPECIAL MEETING

The Cytyc board of directors is using this joint proxy statement/prospectus to solicit proxies from the holders of shares of Cytyc common stock on the Cytyc record date for use at the special meeting of Cytyc stockholders. Cytyc is first mailing this joint proxy statement/prospectus and accompanying form of proxy to Cytyc stockholders on or about [], 2007.

Date, Time and Place

The special meeting of Cytyc stockholders will be held on [], 2007 at [] a.m., local time, at The Hilton Boston Logan Airport, 85 Terminal Road, Boston, Massachusetts 02128.

Purpose of the Cytyc Special Meeting

At the Cytyc special meeting, Cytyc stockholders will be asked to:

- 1. adopt the merger agreement and the transactions contemplated thereby, including the merger; and
- 2. if submitted to a vote of Cytyc stockholders, approve an adjournment of the Cytyc 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, as described in Proposal to Adjourn Cytyc Special Meeting beginning on page 142.

Board Recommendations

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 the Cytyc stockholders and unanimously recommends that the Cytyc stockholders use the proxy card to vote **FOR** the proposal to adopt the merger agreement and the transactions contemplated thereby, including the merger, and **FOR** the proposal to approve the adjournment, including, if necessary, in order to solicit additional proxies in favor of the adoption of the merger agreement.

Cytyc Record Date; Shares Entitled to Vote

The Cytyc board of directors has fixed the close of business on [], 2007, as the Cytyc record date for the Cytyc special meeting. Accordingly, only holders of record of Cytyc common stock as of the close of business on the Cytyc record date will be entitled to notice of, and to vote at, the Cytyc special meeting or any adjournment or postponement thereof. As of the Cytyc record date, an aggregate of [] shares of Cytyc common stock were issued and outstanding. The holders of Cytyc common stock are entitled to one vote per share on any proposal presented at the Cytyc special meeting.

Shares of Cytyc common stock held by Cytyc as treasury shares and shares of Cytyc common stock held by its subsidiaries will not be entitled to vote.

Stock Ownership of Directors and Executive Officers

On [], 2007, the Cytyc record date, directors and executive officers of Cytyc and their respective affiliates owned and were entitled to vote [] shares of Cytyc common stock, or approximately []% 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.

Quorum Requirement

The presence in person or by proxy of at least a majority of the voting power of the shares of Cytyc common stock issued and outstanding and entitled to vote at the Cytyc special meeting is necessary to establish a quorum

Table of Contents

for the transaction of business at the Cytyc special meeting. Abstentions and broker non-votes are counted as present or represented for purposes of determining the presence or absence of a quorum. A non-vote occurs when a broker holding shares for a beneficial owner votes on one proposal, but does not vote on another proposal because, in respect of such other proposal, the broker does not have discretionary voting power and has not received instructions from the beneficial owner.

Under NASD rules, brokers who hold shares in street name for customers have the authority to vote on certain routine proposals when they have not received instructions from beneficial owners. Under NASD rules, such brokers are precluded from exercising their voting discretion with respect to the approval and adoption of non-routine matters, such as the merger agreement. Therefore, absent specific instructions from the beneficial owner of such shares, brokers are not empowered to vote such shares with respect to the approval of these non-routine proposals.

An automated system administered by Cytyc s transfer agent tabulates the votes. The vote on each matter submitted to stockholders is tabulated separately. Abstentions and broker non-votes are included in the number of shares present or represented for purposes of quorum, but are not considered as shares voting or as votes cast with respect to any matter presented at the Cytyc special meeting.

Votes Required to Approve Cytyc Proposals

Required Vote for Adoption of Merger Agreement (Proposal 1). The affirmative vote of a majority of the outstanding shares of Cytyc common stock entitled to vote is required to adopt the merger agreement and the transactions contemplated thereby, including the merger. Consequently, an abstention from voting or a broker non-vote on Proposal 1 will have the effect of a vote against Proposal 1.

Adoption of the merger agreement and the transactions contemplated thereby, including the merger, by the requisite vote of the Cytyc stockholders is required to complete the merger.

Required Vote for Adjournment of the Cytyc Special Meeting (Proposal 2). Stockholder approval of any adjournment of the Cytyc special meeting, including, if necessary, to solicit additional proxies if there are not sufficient votes for the foregoing proposal, requires the affirmative vote of a majority of the votes cast by stockholders present in person or by proxy, whether or not a quorum is present at the meeting. Abstentions and broker non-votes will have no effect on the vote on Proposal 2.

Voting of Proxies

By Mail. A proxy card is enclosed for your use. To submit your proxy by mail, Cytyc asks that you sign and date the accompanying proxy and, if you are a stockholder of record, return it as soon as possible in the enclosed postage-paid envelope or according to the instructions provided in the proxy card. If the envelope is missing, please see the instructions on your proxy card. If you hold your shares in street name, please refer to your proxy card or the information provided to you by your bank, broker, custodian or record holder. When the accompanying proxy is returned properly executed, the shares of Cytyc common stock represented by it will be voted at the Cytyc special meeting in accordance with the instructions contained in the proxy.

If proxies are returned properly executed without indication as to how to vote, the Cytyc common stock represented by each such proxy will be considered to be voted in favor of all matters for consideration at the Cytyc special meeting as follows: **FOR** the proposal to adopt the merger agreement and the transactions contemplated thereby, including the merger, and **FOR** the proposal to approve the adjournment, including, if necessary, in order to solicit additional proxies in favor of the adoption of the merger agreement.

There are no voting agreements in place in respect of any outstanding shares of Cytyc common stock entitled to vote at the Cytyc special meeting.

140

Your vote is important. Accordingly, please sign, date and return the enclosed proxy card whether or not you plan to attend the Cytyc special meeting in person.

By Telephone. If you are a stockholder of record, you may also submit your proxy by telephone by dialing the toll-free telephone number on your proxy card and providing the unique control number indicated on the enclosed proxy card. Telephone voting is available 24 hours a day, seven days a week, and will be accessible until 11:59 p.m., New York City time, on [], 2007. Easy-to-follow voice prompts allow you to submit your proxy and confirm that your instructions have been properly recorded. If you hold your shares in street name, please refer to your proxy card or the information provided by your bank, broker, custodian or record holder for information on telephone voting. If you are located outside the United States, Canada and Puerto Rico, see your proxy card or other materials for additional instructions. If you submit your proxy by telephone, you do not need to return your proxy card.

By Internet. If you are a stockholder of record, you may also choose to submit your proxy on the Internet. Internet voting is available 24 hours a day, seven days a week, and will be accessible until 11:59 p.m., New York City time, on [], 2007. Please refer to the enclosed proxy card for information about the website for Internet voting and the unique control number you will be required to provide. If you hold your shares in street name, please refer to your proxy card or the information provided by your bank, broker, custodian or record holder for information on Internet voting. As with telephone voting, you will be given the opportunity to confirm that your instructions have been properly recorded. If you submit your proxy on the Internet, you do not need to return your proxy card.

Voting In Person. If you wish to vote in person at the Cytyc special meeting, a ballot will be provided at the Cytyc special meeting. However, if your shares are held in street name by your bank, broker, custodian or other record holder, you must obtain a proxy, executed in your favor, from the holder of record to be able to vote at the meeting.

Revocation of Proxies

You have the power to revoke your proxy at any time before your proxy is voted at the Cytyc special meeting. Your proxy can be revoked 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 Cytyc special meeting (or, if the special meeting is adjourned or postponed, attend the adjourned or postponed meeting) and vote in person which will automatically cancel any proxy previously given, but your attendance alone will not revoke any proxy previously given.

If you choose either of the first two methods, your notice of revocation or new proxy must be received by Cytyc s corporate secretary no later than the beginning of the Cytyc special meeting or, if the special meeting is adjourned or postponed, before the adjourned or postponed meeting is actually held.

If your shares are held in street name, you may change your vote by submitting new voting instructions to your broker or nominee.

Solicitation of Proxies

All costs of this solicitation of proxies will be borne by Cytyc. In addition to solicitations by mail, certain of Cytyc s directors, officers and regular employees, without additional remuneration, may solicit proxies in person

141

or by telephone or telegraph. Brokers, custodians and fiduciaries will be requested to forward proxy soliciting material to the owners of Cytyc common stock held in their names, and Cytyc will reimburse them for their reasonable out-of-pocket costs. Solicitation by Cytyc officers and employees may also be made of some Cytyc stockholders in person or by mail, telephone or telegraph following the original solicitation. In addition, Cytyc has engaged Morrow & Co., Inc. to assist it in the distribution and solicitation of proxies at a fee of \$25,000, plus expenses.

Do not send any stock certificates with your proxy cards. If Cytyc stockholders adopt the merger agreement at the Cytyc special meeting, the other conditions to closing are satisfied and the merger is completed, the exchange agent will mail transmittal forms with instructions for the surrender of stock certificates for shares of Cytyc common stock as soon as practicable after completion of the merger.

Householding

In accordance with notices sent to Cytyc stockholders who share a single address and own their Cytyc shares through a bank, broker or other holder of record, Cytyc is sending only one proxy statement to that address unless it received contrary instructions from any stockholder at that address. This householding practice reduces Cytyc s printing and postage costs. Cytyc stockholders may request or discontinue householding, or may request a separate copy of the proxy statement. Cytyc stockholders who wish to either discontinue or begin householding should contact their bank, broker or other record holder. Any householded stockholder may request prompt delivery of a copy of the proxy statement by visiting the Investor Information section of Cytyc s website, www.cytyc.com, or may write to Cytyc at Investor Relations, 250 Campus Drive, Marlborough, Massachusetts 01752.

PROPOSAL TO ADJOURN CYTYC SPECIAL MEETING

The Cytyc stockholders are being asked to consider and vote upon a proposal to approve an adjournment of the special meeting, if necessary, including adjournments to permit further solicitation of proxies in favor of the proposal to adopt the merger agreement and the transactions contemplated thereby, including the merger.

If a quorum is not present at the Cytyc special meeting, Cytyc stockholders may be asked to vote on the proposal to adjourn the Cytyc special meeting to solicit additional proxies. If a quorum is present at the Cytyc special meeting, but there are not sufficient votes at the time of the special meeting to approve the proposal to adopt the merger agreement, Cytyc stockholders may also be asked to vote on the proposal to approve the adjournment of the special meeting to permit further solicitation of proxies in favor of that proposal.

If the adjournment proposal in submitted for a vote at the Cytyc special meeting, and if the Cytyc stockholders vote to approve the adjournment proposal, the meeting will be adjourned to enable the Cytyc board of directors to solicit additional proxies in favor of the proposal to adopt the merger agreement. If the adjournment proposal is approved, and the Cytyc special meeting is adjourned, the Cytyc board of directors will use the additional time to solicit additional proxies in favor of the proposal to adopt the merger agreement, including the solicitation of proxies from stockholders that have previously voted against the proposal to adopt the merger agreement. Among other things, approval of the adjournment proposal could mean that, even though Cytyc may have received proxies representing a sufficient number of votes against the proposal to adopt the merger agreement to defeat it, management could present the adjournment proposal for a vote of stockholders and thereby cause the Cytyc special meeting to be adjourned without a vote on the proposal to adopt the merger agreement and seek during that period of adjournment to convince the holders of those shares to change their votes to vote in favor of the proposal to adopt the merger agreement.

Cytyc s board of directors believes that if the number of shares of Cytyc common stock voting in favor of the proposal to adopt the merger agreement is insufficient to approve that proposal, it is in the best interests of Cytyc s stockholders to enable Cytyc s board of directors, for a limited period of time, to continue to seek to obtain a sufficient number of additional votes in favor of the proposal.

142

HOLOGIC CHARTER AMENDMENT

At the Hologic special meeting, Hologic stockholders will be asked to approve the amendment (described below) of Hologic s certificate of incorporation, as amended, which is referred to as the Hologic charter. The amendment will increase the number of authorized shares of Hologic common stock from 90,000,000 shares to 300,000,000 shares. As a condition to the completion of the merger, the Hologic stockholders must approve the amendment to the Hologic charter described in this section. Annex H to this joint proxy statement/prospectus contains the complete text of the proposed amendment to the Hologic charter, which you are urged to read in its entirety. See Comparison of Stockholder Rights, beginning on page 158. If the merger is not completed for any reason, Hologic s board of directors will abandon the amendment described in this section and the amendment will be of no force and effect.

Increase of Authorized Common Stock

Under the Hologic charter, 90,000,000 shares of common stock are currently authorized. On [], 2007, the Hologic record date, approximately [] shares of Hologic common stock were issued and outstanding (not counting shares held in Hologic s treasury).

To complete the merger, assuming conversion of all of Cytyc s outstanding 2.25% Senior Convertible Notes due 2024, Hologic expects that approximately 64.8 million shares of Hologic common stock will be required to be issued to holders of shares of Cytyc common stock based on the number of shares of Cytyc common stock outstanding as of May 31, 2007 and that approximately 14.1 million shares of Hologic common stock will be required to be reserved for issuance under Cytyc options and other Cytyc equity-based awards.

Accordingly, the shares of Hologic common stock currently authorized under the Hologic charter will not be sufficient to complete the merger. Hologic therefore asks Hologic stockholders to approve the proposed amendment, which will change Article FOURTH of the Hologic charter to increase the number of authorized shares of Hologic common stock from 90,000,000 to 300,000,000 shares.

The increased number of authorized shares will give Hologic sufficient shares to complete the merger. At present, Hologic has no plans to issue shares for any other purpose, other than in connection with Hologic s acquisition of BioLucent, Inc., pursuant to that certain Agreement and Plan of Merger dated as of June 20, 2007 by and among Hologic, Bravo Transition, Inc., and BioLucent, Inc. See Summary Recent Developments beginning on page 8. Hologic believes, however, that it is desirable to have additional shares available for other corporate purposes that might arise in the future. For example, such shares could be used for acquisitions or to raise capital or to effect a stock split.

Whether any future issuance of shares unrelated to the merger would be submitted for stockholder vote depends upon the nature of the issuance, legal and stock exchange requirements and the judgment of the board of directors of the combined company at the time.

APPROVAL OF THE HOLOGIC, INC. SENIOR EXECUTIVE SHORT-TERM INCENTIVE PLAN

The Hologic, Inc. Senior Executive Short-Term Incentive Plan (STIP) was approved by the board of directors, upon recommendation of Hologic s compensation committee, on June 25, 2007, subject to stockholder approval. Hologic is submitting the STIP for stockholder approval as required by Section 162(m) of the Code. If the STIP is approved by stockholders and terms therein are satisfied, then the payment of bonus awards under the STIP to the chief executive officer and the three other executive officers (other than principal financial officer) whose compensation is described each year in the summary compensation table of Hologic s proxy statement (the covered employees) will be fully deductible as qualified performance-based compensation under Section 162(m). The STIP will be effective for determination of annual bonuses for the next fiscal year beginning on October 1, 2007. The following summary of the STIP should be read in conjunction with, and is qualified in its entirety by reference to, the complete text of the STIP, which is attached to this joint proxy statement/prospectus as Annex J.

Summary of the STIP

The STIP provides objective performance-based awards for covered employees, subject to a maximum limit, as described in more detail below. Amounts paid under the STIP are intended to qualify as qualified performance-based compensation, which is excluded from the \$1.0 million limit on deductible compensation set forth in Section 162(m) of the Code.

Administration. The STIP will be administered by the compensation committee appointed by the board of directors, which is authorized to designate as participants, and grant awards to, employees of Hologic who are covered employees. The compensation committee must be comprised of at least such number of directors as is required from time to time to satisfy the performance-based compensation exception provided for under Section 162(m) of the Code, each of whom must be an outside director within the meaning of Section 162(m).

Under the STIP, the compensation committee may designate participants and establish performance targets and target awards for each participant not later than 90 days after the beginning of a calendar year or fiscal year of Hologic, or such other period designated by the compensation committee, provided such performance targets and target awards are established before 25% of such period has elapsed. The performance targets may relate to the attainment of specified levels of one or more of the following measures, as defined below: economic value added; earnings before interest, taxes, depreciation and amortization; adjusted earnings before interest, taxes, depreciation and amortization; earnings before interest and taxes; earnings per share; operating income; adjusted operating income; income before income taxes; adjusted income before income taxes; net income; adjusted net income; operating margin return on equity; return on assets; revenue; and total shareholder return

Shortly after the end of each performance period, the compensation committee must certify whether or not the performance targets have been achieved. The compensation committee has the right, in its sole discretion, to reduce the amount of the award to any participant to reflect the compensation committee s assessment of the participant s individual performance or for any other reason. These awards are payable in cash as soon as practicable thereafter.

To receive payment of an award, the participant must have remained in Hologic s continuous employ through the end of the applicable performance period. However, if (i) Hologic terminates a participant s employment other than for cause; (ii) a participant terminates his or her employment for good reason; or (iii) a participant becomes permanently disabled or dies during a performance period, the participant or his or her estate shall be awarded, unless his or her employment agreement provides otherwise, a pro rata portion of the award earned for the performance period. The compensation committee has the right, in its sole discretion, to reduce the amount of the award to reflect the compensation committee s assessment of the participant s individual performance prior to the applicable termination event or for any other reason. Unless otherwise specifically defined in an employment agreement or a benefit plan document, a determination as to whether a participant s employment has been terminated for cause, for good reason or due to permanent disability shall be made by the compensation committee in its sole discretion.

Maximum Award. The STIP provides that the maximum award to any participant for any performance period is determined by multiplying a participant s salary by a factor of four. As of the date of this joint proxy statement/prospectus, the highest salary of any participant was \$510,000. As such, the maximum dollar amount of compensation that could be payable to any participant for any performance period under the STIP is \$2.04 million.

Adjustments. In the event that, during a performance period, any recapitalization, reorganization, merger, acquisition, divestiture, consolidation, spin-off, combination, liquidation, dissolution, sale of assets or other similar corporate transaction or event, or any other extraordinary event, occurs, or any other event or circumstance occurs that has the effect, as determined by the compensation committee in its sole and absolute discretion, of distorting the applicable performance targets, including, without limitation, changes in accounting

144

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Table of Contents

standards, the compensation committee may, to the extent consistent with Section 162(m), adjust or modify, in its sole and absolute discretion, the calculation of the performance targets, to the extent necessary to prevent reduction or enlargement of participants awards under the STIP for such performance period attributable to such transaction, circumstance or event.

Transfer Restrictions. The rights of a participant with respect to any award under the STIP are not transferable other than by will or the laws of descent and distribution. No award under the STIP will be construed as giving any employee a right to continued employment with Hologic.

Amendment. The board of directors may at any time alter, amend, suspend or terminate the STIP in whole or in part; provided, however, that no alteration or amendment will be effective without the approval of Hologic s stockholders if their approval is required by law.

AMENDMENT TO HOLOGIC S SECOND AMENDED AND RESTATED

1999 EQUITY INCENTIVE PLAN

Description of the Proposed Amendment

The stockholders of Hologic are being asked to consider and vote upon a proposal to approve an amendment to Hologic s Second Amended and Restated 1999 Equity Incentive Plan, which is referred to as the 1999 Plan, at the Hologic special meeting to increase the number of shares of Hologic common stock available for issuance under the 1999 Plan by an additional 4,000,000 shares effective upon completion of the merger.

Currently the 1999 Plan provides that the maximum aggregate number of shares of Hologic common stock available for issuance under the 1999 Plan is 600,000 shares, plus an annual increase to be made on the first day of each fiscal year equal to the lesser of (i) $2^{1}/2\%$ of the Issued Shares (as defined below) on the last day of the immediately preceding fiscal year; (ii) 1,000,000 shares; or (iii) an amount determined by the Hologic board of directors. As of May 31, 2007, since the adoption of the 1999 Plan in March 1999 and taking into account the annual adjustments to the maximum number of shares available for issuance under the 1999 Plan, there have been an aggregate of 7,660,000 shares authorized to be issued under the 1999 Plan, of which 4,209,751 shares have been issued, 2,416,371 shares are reserved for issuance pursuant to outstanding awards, and 1,033,878 shares are available for future issuances.

As a result of the merger, the board of directors of Hologic believes that the combined company, which will be a much larger company with significantly more employees, will need additional shares of common stock available for awards under the 1999 Plan to attract and retain employees and directors to provide an incentive for them to assist the combined company in achieving long-range performance goals, and to enable them to participate in the long-term growth of the combined company. Accordingly, on June 25, 2007, upon the recommendation of Hologic s compensation committee, the board of directors unanimously approved, subject to stockholder approval, an amendment to Section 5(a) of the 1999 Plan to provide that an additional 4,000,000 shares of common stock of Hologic will be available for issuance under the 1999 Plan effective upon completion of the merger. If the amendment is approved by Hologic stockholders and the merger between Hologic and Cytyc is completed, the first sentence of Section 5(a) of the 1999 Plan will be deleted in its entirety and replaced with the following:

Effective on the effective time of the merger between the Corporation and Cytyc Corporation pursuant to that certain Agreement and Plan of Merger, dated as of May 20, 2007, by and among Hologic, Inc., Cytyc Corporation and Nor easter Corp., subject to adjustment under subsection (b), the maximum aggregate number of shares of common stock available for issuance under the Plan is 600,000 shares, plus (A) an annual increase to be made on the first day of each fiscal year equal to the lesser of (i) 2 \(^1/2\%\) of the Issued Shares (as defined below) on the last day of the immediately preceding fiscal year, (ii) 1,000,000 shares, or (iii) an amount determined by the board of directors, plus (B) 4,000,000 shares.

145

The amendment to the 1999 Plan will become effective if it is approved by Hologic stockholders at the Hologic special meeting, but only if the merger contemplated by the merger agreement is completed. Under the merger agreement, approval of the amendment to the 1999 Plan by Hologic stockholders is not a condition to the obligations of the parties to complete the merger. Accordingly, even if the amendment to the 1999 Plan is not approved by Hologic stockholders at the special meeting, the parties will be obligated to complete the merger if the closing conditions to the merger are satisfied.

If the amendment to the 1999 Plan is not approved by Hologic stockholders, the 1999 Plan will continue in effect in its current form. In connection with the merger, Hologic is assuming any grants outstanding under Cytyc s 2004 Omnibus Plan and, if the 1999 Plan is not approved by Hologic stockholders, Hologic may determine to assume Cytyc s 2004 Omnibus Plan in connection with the merger, and may continue to grant equity awards to former Cytyc employees on an as-converted basis, in accordance with the mergers and acquisitions exemption to the equity compensation plan stockholder approval requirement under applicable Nasdaq listing standards. An aggregate of 12,250,000 shares of Cytyc common stock have been reserved for issuance under Cytyc s 2004 Omnibus Plan and, as of June 22, 2007, an aggregate of 12,250,000 shares have been authorized to be issued under the plan, of which 912,082 shares have been issued, 8,709,943 shares are reserved for issuance pursuant to outstanding awards, and 2,627,975 shares are available for future issuances. Any awards made pursuant to Cytyc s 2004 Omnibus Plan after the effective time of the merger would be made in shares of common stock of Hologic on an as-converted basis in accordance with the terms of Cytyc s 2004 Omnibus Plan. If the amendment to the 1999 Plan is approved by the Hologic stockholders, it is not expected that any further awards will be made under Cytyc s 2004 Omnibus Plan.

Description of the 1999 Plan

The following summary of the 1999 Plan, as amended, is qualified by its entirety to the complete text of the Second Amended and Restated 1999 Equity Incentive Plan, as amended, a copy of which is attached to this joint proxy statement/prospectus as Annex K. Other than the changes described above to increase the authorized number of shares of Hologic common stock issuable under the 1999 Plan upon the effective time of the merger, the material terms and conditions of the 1999 Plan will not change.

Purpose. The 1999 Plan was approved by Hologic s stockholders in March 1999 and amendments to the 1999 Plan were approved by Hologic s stockholders in February 2004 and in February 2006. The purposes of the 1999 Plan are to attract and retain employees and directors to provide an incentive for them to assist Hologic in achieving long-range performance goals, and to enable them to participate in the long-term growth of Hologic.

Effective Date. The amendment to the 1999 Plan will become effective at the effective time of the merger, if it is approved by Hologic stockholders.

Term. The term of the 1999 Plan expires on March 3, 2009.

Awards Under the Plan. Awards under the 1999 Plan may be made in the form of:

stock options, which may be either incentive stock options or non-qualified stoc	ck options;
restricted stock;	
restricted stock units;	
stock appreciation rights either in tandem with an option or alone and unrelated	to an option, or SARs;
performance shares;	

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award shares;
other stock-based awards; or
any combination of the foregoing.

146

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Table of Contents

Eligible Participants. All employees, and in the case of awards other than incentive stock options, directors of Hologic or any affiliate (as that term is defined in the 1999 Plan) capable of contributing significantly to the successful performance of Hologic, other than a person who has irrevocably elected not to be eligible, are eligible to participate in the 1999 Plan.

Administration. The 1999 Plan is currently administered by the compensation committee of Hologic s board of directors. The compensation committee serves at the pleasure of Hologic s board of directors which can, at its sole discretion, discharge any member of the compensation committee, appoint additional new members in substitution for those previously appointed and/or fill vacancies regardless of how they are caused. The board of directors of Hologic has the authority to adopt, alter and repeal administrative rules, guidelines and practices governing the operation of the 1999 Plan and to interpret provisions of the Plan. The board of directors may delegate, to the extent permitted by applicable law, to the compensation committee the power to make awards to participants and all determinations under the 1999 Plan with respect thereto.

Securities to be Offered. If the amendment to the 1999 Plan is approved by Hologic stockholders and the merger between Cytyc and Hologic becomes effective, the 1999 Plan, as amended, would provide that the maximum aggregate number of shares of common stock available for issuance under the 1999 Plan is 600,000 shares, plus (A) an annual increase to be made on the first day of each fiscal year equal to the lesser of (i) 2 \(^1/2\%\) of the Issued Shares (as defined below) on the last day of the immediately preceding fiscal year, (ii) 1,000,000 shares, or (iii) an amount determined by Hologic s board of directors, plus (B) 4,000,000 shares. Issued Shares means the number of shares of Hologic s common stock outstanding on the last day of the immediately preceding fiscal year, plus any shares reacquired by Hologic during the fiscal year that ends on that date. The shares of common stock available for issuance under the 1999 Plan are subject to adjustment for any stock dividend, recapitalization, stock split, stock combination or certain other corporate reorganizations.

Shares issued may consist in whole or in part of authorized but unissued shares or treasury shares. Shares subject to an award that expires or is terminated unexercised or is forfeited for any reason or settled in a manner that results in fewer shares outstanding than were initially awarded will again be available for award under the 1999 Plan. The maximum number of shares which may be granted to an individual in a fiscal year is limited to 1,000,000 shares. As of May 31, 2007, an aggregate of 7,660,000 shares of common stock are authorized for issuance under the 1999 Plan, of which 1,033,878 shares are available for future awards under the 1999 Plan. The closing price of Hologic s common stock on the Nasdaq Global Select Market on June 27, 2007 was \$55,45.

Nonqualified and Incentive Stock Options. Subject to the provisions of the 1999 Plan, the board of directors may award incentive stock options and nonqualified stock options and determine the number of shares to be covered by each option, the option price therefore and the conditions and limitations applicable to the exercise of the option. Each option shall be exercisable at such times and subject to such terms and conditions as the board of directors may specify in the applicable award or thereafter. The board of directors may provide for the automatic award of an option upon the delivery of shares to Hologic in payment of an option for up to the number of shares so delivered.

The terms and conditions of incentive stock options shall be subject to and comply with Section 422 of the Code and any regulations thereunder. No incentive stock option granted under the 1999 Plan may be granted more than ten years after the effective date of the 1999 Plan and no such grant may be exercisable more than ten years from the date of grant (five years after the date of grant for incentive stock options granted to holders of more than ten percent of the common stock). Incentive stock options shall be granted only to employees of Hologic and shall be transferable by the optionee only by the laws of descent and distribution, and shall be exercisable only by the employee during his or her lifetime.

The exercise price of options granted under the 1999 Plan may not be less than the fair market value of the common stock on the date of grant. Incentive stock options may be granted to holders of more than 10% of Hologic s outstanding voting capital stock only at an exercise price of at least 110% of the fair market value of such stock on the date of grant.

147

Options Granted to Non-Employee Directors. The 1999 Plan provides that, unless otherwise determined by the board of directors, each director of Hologic who is not an employee of Hologic or affiliated with any holder of more than 5% of the outstanding voting stock of Hologic shall automatically be granted a nonqualified option to acquire 50,000 shares of common stock as of the date he or she is first elected to the board of directors or, with respect to such directors serving on the board of directors as of the effective date of the 1999 Plan, as of the date of Hologic s 1999 Annual Meeting. In each case, the option price for such options will be the fair market value of the common stock on the date of grant and the expiration date shall be the tenth anniversary thereof. The compensation committee has the discretion to determine the terms, including the vesting schedule of the award. Under the compensation committee s current practice, each such nonqualified option will become exercisable in 20% installments beginning on January 1 of the first year after the grant date, and on January 1 of each year thereafter, until such option is fully exercisable on January 1 of the fifth year following the grant date.

Furthermore, the 1999 Plan provides that, unless otherwise determined by the board of directors, each director of Hologic who is not an employee of Hologic and who has served as a director for six months shall automatically be granted a nonqualified option to acquire 8,000 shares of common stock as of January 1 of each year. The option price of these automatically granted options is the fair market value of the common stock on such date and the expiration date will be the tenth anniversary thereof. Under the compensation committee s current practice, each of these options are exercisable in equal six month installments over two years after the date of grant.

In addition, the board of directors may provide for such other terms and conditions of these options as it may determine, as shall be set forth in the applicable option agreements, including, without limitation, acceleration of exercise upon a change of control of Hologic, termination of the options, and the effect on such options of the death, retirement or other termination of service as a director of the optionholder. Under the terms of the 1999 Plan, the Hologic board of directors may also grant additional awards to the non-employee directors.

Restricted Stock. Subject to provisions of the 1999 Plan, the board of directors may grant shares of restricted stock to participants, with such restricted periods and other conditions as the board of directors may determine and for no cash consideration or such minimum consideration as may be required by applicable law. During the restricted period, unless otherwise determined by the board of directors, stock certificates evidencing the restricted shares will be held by Hologic and may not be sold, assigned, transferred, pledged or otherwise encumbered, except as permitted by the board of directors. At the expiration of the restricted period, Hologic will deliver such certificates to the participant or, if the participant has died, to the beneficiary designed by the participant.

Restricted Stock Units. Subject to provisions of the 1999 Plan, the board of directors may grant restricted stock unit awards. A restricted stock unit is a contractual promise to issue shares at a specified future date, subject to fulfillment of vesting conditions specified by the board of directors. A restricted stock unit award carries no voting or dividend rights or other rights associated with stock ownership. A restricted stock unit award may be settled in common stock, cash, or in any combination of common stock and/or cash; provided, however, that a determination to settle a restricted stock unit award in whole or in part in cash shall be made by the board of directors in its sole discretion.

Stock Appreciation Rights. Subject to the provisions of the 1999 Plan, the board of directors may award SARs in tandem with an option (at or after the award of the option) or alone and unrelated to an option. A SAR entitles the holder to receive from Hologic an amount equal to the excess, if any, of the fair market value of the common stock over the reference price. SARs granted in tandem with an option will terminate to the extent that the related option is exercised, and the related option will terminate to the extent that the tandem SARs are exercised.

Performance Shares. Subject to the provisions of the 1999 Plan, the board of directors may grant performance shares to participants in the form of grants of shares of common stock. Performance shares are earned over a period of time (a performance cycle) selected by the board of directors from time to time. There

148

may be more than one performance cycle in existence at any one time and the duration of the performance cycles may differ from each other. Unless otherwise determined by the board of directors, the payment value of the performance shares will be equal to the fair market value of the common stock on the date the performance shares are earned or on the date the board of directors determines that the performance shares have been earned. The board of directors shall establish performance goals for each cycle for the purpose of determining the extent to which performance shares awarded for such cycle are earned. As soon as practicable after the end of a performance cycle, the board of directors shall determine the number of performance shares which have been earned on the basis of performance in relation to the established performance goals. Payment values of earned performance shares are distributed to the participant or, if the participant has died, to the beneficiary designated by the participant.

Stock Awards. Subject to the provisions of the 1999 Plan, the board of directors may award stock awards, which may be designated as award shares by the board of directors, subject to such terms, restrictions, conditions, performance criteria, vesting requirements and payment needs, if any, as the board of directors shall determine. Shares of common stock or other rights awarded in connection with a stock award shall be issued for no cash consideration or such minimum consideration as may be required by law.

General Provisions. Each award shall be evidenced by a written document delivered to the participant specifying the terms and conditions thereof and containing such other terms and conditions not inconsistent with the provisions of the 1999 Plan as the board of directors considers necessary or advisable. Each type of award may be made alone, in addition to, or in relation to any other type of award. The terms of each type of award need not be identical and the board of directors need not treat participants uniformly. The board of directors may amend, modify or terminate any outstanding award, including substituting therefor another award, changing the date of exercise or realization and converting an incentive stock option to a nonqualified stock option, provided that the participant s consent to such action shall be required unless the board of directors determines that the action would not materially and adversely affect the participant.

The board of directors will determine whether awards granted pursuant to the 1999 Plan are settled in whole or in part in cash, common stock, other securities of Hologic, other property or such other methods as the board of directors may deem appropriate. The board of directors may permit a participant to defer all or any portion of a payment under the 1999 Plan. In the board of directors discretion, tax obligations required to be withheld in respect of an award may be paid in whole or in part in shares of common stock, including shares retained from such award. The board of directors will determine the effect on an award of the death, disability, retirement or other termination of employment of a participant and the extent to which and period during which the participant s legal representative, guardian or designated beneficiary may receive payment of an award or exercise rights thereunder. Except as otherwise provided by the board of directors, awards under the 1999 Plan are not transferable other than as designated by the participant by will or by the laws of descent and distribution.

The board of directors in its discretion may take certain actions in order to preserve a participant s rights under an award in the event of a change in control of Hologic, including (i) providing for the acceleration of any time period relating to the exercise or realization of the award, (ii) providing for the purchase of the award for an amount of cash or other property that could have been received upon the exercise or realization of the award had the award been currently exercisable or payable, (iii) adjusting the terms of the award in order to reflect the change in control, (iv) causing the award to be assumed, or new rights substituted therefor, by another entity, or (v) making such other provision as the board of directors may consider equitable and in the best interest of Hologic, provided that, in the case of an action taken with respect to an outstanding award, the participant s consent to such action shall be required unless the board of directors determines that the action, taking into account any related action, would not materially and adversely affect the participant.

The board of directors of Hologic may amend, suspend or terminate the 1999 Plan or any portion thereof at any time; provided that no amendment shall be made without stockholder approval if such approval is necessary to comply with any applicable law, rules or regulations.

149

Benefits under the Plan. Pursuant to the terms of the 1999 Plan, as such terms will continue to be in effect following the amendment to the plan, each non-employee director is automatically granted a nonqualified option to acquire 50,000 shares of common stock as of the date he or she is first elected to the board of directors. In addition, each non-employee who has served as a director for six months is granted a nonqualified option to purchase 8,000 shares of common stock as of January 1 of each year. The exercise prices of these options will be 100% of the fair market value of Hologic s common stock on the date of grant. Future awards under the 1999 Plan to executive officers and employees, and any additional future discretionary awards to non-employee directors in addition to those granted automatically pursuant to the grant formula, are discretionary and cannot be determined at this time.

In accordance with the terms of the 1999 Plan, each independent continuing Cytyc director that becomes a director of Hologic at the effective time of the merger will receive an automatic grant of options to purchase 50,000 shares of Hologic common stock in accordance with the terms of the 1999 Plan, regardless of whether the amendment to the 1999 Plan is approved. In connection with entering into the merger agreement, the parties agreed to treat all independent directors who will serve as directors of Hologic at the effective time of the merger similarly. Accordingly, subject to discretion and approval of the compensation committee of the board of directors of Hologic by Hologic stockholders, it is expected that each independent continuing Hologic director will be granted options to purchase 50,000 shares of common stock of Hologic under 1999 Plan at the effective time of the merger. The options to purchase 50,000 shares of Hologic common stock to be granted to all independent directors of Hologic at the effective time of the merger will become exercisable in 20% installments beginning on January 1 of the first year after the grant date, and on January 1 of each year thereafter, until such options are fully exercisable on January 1 of the fifth year following the grant.

The 1999 Plan also provides that each non-employee who has served as a director for six months is granted a nonqualified option to purchase 8,000 shares of common stock as of January 1 of each year. If the independent continuing Hologic directors receive their discretionary grant of options to purchase 50,000 shares of Hologic common stock, they have agreed to forego their automatic grant of options to purchase 8,000 shares of Hologic common stock that they would have otherwise received on January 1, 2008 pursuant to the terms of the 1999 Plan. The independent continuing Cytyc directors are not eligible for the automatic grant of options to purchase 8,000 shares under Hologic s 1999 Plan because such persons would not have been serving as a Hologic director for a period of six months before January 1, 2008.

United States Federal Income Tax Consequences

The following general discussion of the Federal income tax consequences of the issuance and exercise of options granted under the 1999 Plan is based upon the provisions of the Code as in effect on the date hereof, current regulations thereunder and existing administrative rulings of the Internal Revenue Service. This discussion is not intended to be a complete discussion of all of the Federal income tax consequences of the 1999 Plan or of all of the requirements that must be met in order to qualify for the tax treatment described herein. Changes in the law and regulations may modify the discussion, and in some cases the changes may be retroactive. No information is provided as to state tax laws. In addition, because tax consequences may vary, and certain exceptions to the general rules discussed herein may be applicable, depending upon the personal circumstances of individual holders of securities, each holder of an award should consider his personal situation and consult with his tax advisor with respect to the specific tax consequences applicable to him. The 1999 Plan is not qualified under Section 401 of the Code, nor is it subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended. The tax treatment of each kind of award under the 1999 Plan is as follows:

Incentive Stock Options. Incentive stock options granted under the 1999 Plan are intended to qualify as incentive stock options under Section 422 of the Code.

A participant generally will not recognize taxable income upon the grant or exercise of an incentive stock option. Under certain circumstances, however, there may be alternative minimum tax or other tax consequences,

150

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Table of Contents

as described below. If an option holder does not make a disqualifying disposition (as defined below), then the option holder will not recognize any taxable income until shares are sold or exchanged, and any gain recognized upon disposition of shares will be taxable as long-term capital gain. A disqualifying disposition means any disposition of shares acquired on the exercise of an incentive stock option where such disposition occurs within two years of the date the option was granted or within one year of the date the shares were transferred to the option holder. The use of the shares acquired pursuant to the exercise of an incentive stock option to pay the option exercise price under another stock option is treated as a disposition for this purpose.

In general, if the option holder makes a disqualifying disposition, then the excess of (a) the lesser of (i) the fair market value of the shares on the date of exercise or (ii) the amount realized upon disposition of the shares over (b) the option exercise price will be taxable to the option holder as ordinary income. In the case of a gift or certain other transfers, the amount of taxable ordinary income is not limited to the gain that would have resulted from a sale. Instead, it is equal to the excess of the fair market value of the shares on the date of exercise over the option exercise price. In the case of a disqualifying disposition, if the amount realized on disposition of the shares exceeds the fair market value of the shares on the date of exercise, the excess will be taxed as either long-term or short-term capital gain depending on the option holder s holding period for the shares. The holding period for the shares generally would begin on the date the shares were acquired and would not include the period of time during which the option was held.

Certain option holders are subject to Section 16(b) of the Exchange Act upon their sale of shares of common stock. If an option holder is subject to Section 16(b), the date on which the fair market value of the shares is determined may similarly be postponed. The Treasury regulations have not yet been amended to conform with the most recent revision to Section 16(b). However, it is generally anticipated that the date on which the fair market value of the shares is determined will be the earlier of (i) the date six months after the date the stock option was granted, or, (ii) the first day on which the sale of the shares would not subject the individual to liability under Section 16(b). It is possible that the six-month period will instead run from the option holder s most recent grant or purchase of common stock prior to his or her exercise of the stock option. On the determination date, the option holder will generally recognize ordinary taxable income in an amount equal to the excess of the fair market value of the shares of common stock at that time over the option exercise price.

Despite the general rule, in the case of a substantial risk of forfeiture, or in the case of recipients subject to Section 16(b) (if the determination date is after the date of exercise), the option holder may make an election pursuant to Section 83(b) of the Code, in which case the option holder will recognize ordinary taxable income at the time the stock option is exercised and not on the later date. In order to be effective, the Section 83(b) election must be made and filed with the IRS within 30 days after exercise.

In general, the fair market value of the shares on the date of exercise, less the exercise price, will be included in the option holder s alternative minimum taxable income in the year the option is exercised. However, if in the same year, the shares are disposed of at a lower price, then alternative minimum taxable income is calculated using this lower price instead of the shares—fair market value on the date of exercise. The application of the alternative minimum tax rules for option holders subject to Section 16(b) or who receive shares that are not—substantially vested—is more complex and may depend upon whether such holders are entitled to and make a Section 83(b) election. Because of the many adjustments that apply to the computation of the alternative minimum tax, it is not possible to predict the application of such tax to any particular option holder. An option holder may owe alternative minimum tax even though he has not disposed of the shares or otherwise received any cash with which to pay the tax. The alternative minimum tax rate is higher than the rate applicable to long-term capital gains.

Hologic will not be entitled to any deduction with respect to the grant or exercise of incentive stock options. In addition, no deduction will be allowed to Hologic upon the disposition of stock acquired upon the exercise of an incentive stock option, unless the disposition is a disqualifying disposition. In the case of a disqualifying disposition, Hologic generally will be entitled to a deduction equal to the amount of compensation income that is recognized by the employee as a result of the disqualifying disposition.

151

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Table of Contents

Nonqualified Stock Options. A recipient of a nonqualified stock option generally will not recognize any income for federal tax purposes with respect to the option until the option is exercised. At that time, subject to certain limited exceptions, the recipient will recognize ordinary income in an amount equal to the excess of the fair market value of the shares on the date acquired over the option exercise price.

The application of the tax rules to an option holder who receives shares that are subject to a substantial risk of forfeiture (for example, if the shares must be returned to Hologic if the recipient does not work for Hologic for a period of time, if any, specified in the award) are more complex. In that case, the recipient generally will not recognize income until the date the shares are no longer subject to the substantial risk of forfeiture, unless a Section 83(b) election (described below) is made.

Certain option holders are subject to Section 16(b) of the Exchange Act upon their sale of shares of common stock. If an option holder is subject to Section 16(b), the date on which the fair market value of the shares is determined may similarly be postponed. The Treasury regulations have not yet been amended to conform with the most recent revision to Section 16(b). However, it is generally anticipated that the date on which the fair market value of the shares is determined will be the earlier of (i) the date six months after the date the stock option was granted, or (ii) the first day on which the sale of the shares would not subject the individual to liability under Section 16(b). It is possible that the six month period will instead run from the option holder s most recent grant or purchase of common stock prior to his or her exercise of the stock option. On the determination date, the option holder will generally recognize ordinary taxable income in an amount equal to the excess of the fair market value of the shares of common stock at that time over the option exercise price.

Despite the general rule, in the case of a substantial risk of forfeiture, or in the case of recipients subject to Section 16(b) (if the determination date is after the date of exercise), the option holder may make an election pursuant to Section 83(b) of the Code, in which case the option holder will recognize ordinary taxable income at the time the stock option is exercised and not on the later date. In order to be effective, the Section 83(b) election must be made and filed with the IRS within 30 days after exercise.

When an option recipient recognizes income, Hologic will generally be entitled to a compensation deduction for federal income tax purposes in an amount equal to the taxable income recognized by the recipient, provided that Hologic reports the income on a timely provided and filed Form W-2 or 1099, whichever is applicable.

Upon a subsequent sale of shares acquired by the exercise of a nonqualified stock option, a recipient generally will recognize capital gain (or loss) equal to the amount by which the selling price of the shares exceeds (or is exceeded by) their fair market value on the date of exercise. The capital gain or loss will be short-term or long-term depending upon how long the shares were held. Any capital gain or loss would be long-term if the holding period for the shares was more than twelve months. The holding period for the shares generally would begin on the date the shares were acquired, and would not include the period of time during which the option was held.

Stock Appreciation Rights. A recipient of a SAR will not be considered to receive any income at the time an SAR is granted, nor will Hologic be entitled to a deduction at that time. Upon the exercise of an SAR, the holder will have ordinary income equal to the cash received upon the exercise. At that time, Hologic will be entitled to a tax deduction equal to the amount of ordinary income realized by the holder.

Restricted Stock and Performance Shares. The recipient of restricted stock or performance shares will be treated in the same manner as a person who has exercised a nonqualified stock option, as described above, for which Hologic has imposed restrictions on the shares received, and for which the exercise price is either zero or a nominal amount. In general, this means that the holder may either wait until the restrictions have elapsed (or the performance goals have been met), and then pay tax at ordinary income tax rates, based upon the fair market value of the shares at that time, or he or she can file a Section 83(b) election, and pay tax based on the fair market value of the shares at the time they are received. Again, Hologic will get a deduction that corresponds to the income recognized by the recipient.

152

Restricted Stock Unit Awards. The grant of a restricted stock unit award will not result in income for the grantee or in a deduction for Hologic. Upon the lapse of the restrictions of a restricted stock unit, the grantee will recognize ordinary income and Hologic will be entitled to a deduction measured by the fair market value of the shares plus any cash received.

Stock Awards. A person who receives a stock award that includes common stock will be treated, with regard to such common stock, in the same manner as a person who has exercised a nonqualified stock option, as described above. In general, this means that the holder will have taxable income at the time the shares are received if they are not subject to restrictions, or as described in the preceding paragraph for restricted stock, if they are subject to restrictions. The tax treatment of a stock award that consists of other rights will depend on the provisions of the award. It may be immediately taxable if there are no restrictions on the receipt of the cash or other property that the stock award represents, or the tax consequences may be deferred if the receipt of cash or other property for the stock award is restricted, or subject to vesting or performance goals. In those situations in which a participant receives property subject to restrictions, the participant may wish to make a Section 83(b) election, as described above. At the time that the holder of the stock award has ordinary income, Hologic will be entitled to a tax deduction equal to the amount of ordinary income realized by the holder.

Deductibility of Awards. Section 162(m) of the Code places a \$1 million annual limit on the compensation deductible by Hologic paid to certain of its executives. The limit, however, does not apply to performance-based compensation. Hologic believes that awards under the 1999 Plan will qualify for the performance-based compensation exception to the deductibility limit.

Equity Compensation Plan Information

Hologic maintains a number of equity compensation plans for employees, officers, directors and others whose efforts contribute to Hologic s success. The table below sets forth certain information as of Hologic s fiscal year ended September 30, 2006 regarding the shares of Hologic s common stock available for grant or granted under stock option plans that (i) were approved by Hologic s stockholders, and (ii) were not approved by Hologic s stockholders.

	Number Of Securities To Be Issued Upon Exercise Of Outstanding Options, Warrants And Rights	Weighted-Average Exercise Price Of Outstanding Options, Warrants And Rights		Number Of Securities Remaining Available For Future Issuance Under Equity Compensation Plans (excluding securities reflected in column (a))		
Plan Category	(a)	warran	(b)	(c)		
Equity compensation plans approved by security						
holders (1)	3,650,734	\$	16.85	32,014		
Equity compensation plans not approved by security holders (2)	567,331	\$	6.94	0		
Total	4,218,065	\$	15.52	1,016,520		

⁽¹⁾ Includes the following plans: Amended and Restated 1990 Non-employee Director Stock Option Plan; 1995 Combination Stock Option Plan; Second Amended and Restated 1999 Equity Incentive Plan; and 2000 Employee Stock Purchase Plan. Also includes the following plans which Hologic assumed in connection with its acquisition of Fluoroscan Imaging Systems in 1996: FluoroScan Imaging Systems, Inc. 1994 Amended and Restated Stock Incentive Plan and FluoroScan Imaging Systems, Inc. 1995 Stock Incentive Plan. For a description of these plans, please refer to Footnote 9 contained in Hologic s consolidated financial statements in its Annual Report on Form 10-K for the fiscal year ended September 30, 2006.

(2) Includes the following plans: 1997 Employee Equity Incentive Plan and 2000 Acquisition Equity Incentive Plan. A description of each of these plans is as follows:

1997 Employee Equity Incentive Plan. The purposes of the 1997 Employee Equity Incentive Plan, the 1997 Plan, adopted by the board of directors in May 1997, are to attract and retain key employees, consultants and advisors, to provide an incentive for them to assist us in achieving long-range performance goals, and to enable such person to participate in Hologic s long-term growth. In general, under the 1997 Plan, all employees, consultants, and advisors who are not executive officers or directors are eligible to participate in the 1997 Plan. The 1997 Plan is administered by a committee consisting of at least three members of the board appointed by the board of directors. Participants in the 1997 Plan are eligible to receive non-qualified stock options, stock appreciation rights, restricted stock and performance shares. A total of 2,200,000 shares of common stock were reserved for issuance under the 1997 Plan. Of the shares reserved for issuance under the 1997 Plan, options to purchase 502,784 shares have been granted and are outstanding. In September 2005, Hologic s board of directors determined that no further awards would be made under this plan and cancelled all remaining shares, 166,084, available for issuance under the 1997 Plan that are not subject to outstanding stock option awards.

2000 Acquisition Incentive Plan. The purpose of the 2000 Acquisition Equity Incentive Plan, the 2000 Plan, adopted by the board of directors in April 2001, is to attract and retain (a) employees, consultants and advisors of newly acquired businesses who have been or are being hired as employees, consultants or advisors of Hologic or any of its consolidated subsidiaries, and (b) employees, consultants and advisors of Hologic who have or are anticipated to provide significant assistance in connection with the acquisition of a newly acquired business or its integration with Hologic, and to provide such persons an incentive for them to achieve long-range performance goals, and to enable them to participate in Hologic as long-term growth. In general, under the 2000 Plan, only employees, consultants and advisors who are not officers or directors of Hologic are eligible to participate in the 2000 Plan. The 2000 Plan is administered by the board of directors or, at its option, a committee consisting of at least three members of the Board appointed by the board of directors. Participants in the 2000 Plan are eligible to receive non-qualified stock options, stock appreciation rights, restricted stock and performance shares. A total of 1,600,000 shares of common stock were reserved for issuance under the 2000 Plan. Of the shares reserved for issuance under the 2000 Plan, options to purchase 360,820 shares have been granted and are outstanding. In September 2005, the board of directors determined that no further awards would be made under this plan and cancelled all remaining shares, 417,704, available for issuance under the 2000 Plan that are not subject to outstanding stock option awards.

154

PROPOSAL TO ADJOURN HOLOGIC SPECIAL MEETING

The stockholders of Hologic are being asked to consider and vote upon a proposal to approve an adjournment of the special meeting, if necessary, including adjournments to permit further solicitation of proxies in favor of each of the proposals to amend the Hologic charter, approve the issuance of shares of Hologic common stock in the merger, approve the Hologic, Inc. Senior Executive Short-Term Incentive Plan and approve of the amendment to Hologic s Second Amended and Restated 1999 Equity Incentive Plan.

If a quorum is not present at the Hologic special meeting, Hologic stockholders may be asked to vote on the proposal to adjourn the Hologic special meeting to solicit additional proxies. If a quorum is present at the Hologic special meeting, but there are not sufficient votes at the time of the special meeting to approve one or more of the proposals, Hologic stockholders may also be asked to vote on the proposal to approve the adjournment of the special meeting to permit further solicitation of proxies in favor of the other proposals; provided, however, that if (i) there are sufficient votes to approve the Hologic charter and the issuance of the shares of Hologic common stock in the merger and (ii) all of the other conditions to the merger are satisfied, Hologic will not delay completion of the merger to solicit additional proxies in favor of the proposals to approve the Hologic, Inc. Senior Executive Short-Term Incentive Plan or the amendment to Hologic second Amended and Restated 1999 Equity Incentive Plan.

If the adjournment proposal is submitted for a vote at the Hologic special meeting, and if the stockholders vote to approve the adjournment proposal, the meeting will be adjourned to enable the Hologic board of directors to solicit additional proxies in favor of one or more proposals. If the adjournment proposal is approved, and the Hologic special meeting is adjourned, the Hologic board of directors will use the additional time to solicit additional proxies in favor of any of the proposals to be presented at the special meeting, including the solicitation of proxies from stockholders that have previously voted against the relevant proposal. Among other things, approval of the adjournment proposal could mean that, even though Hologic may have received proxies representing a sufficient number of votes against a proposal to defeat it, management could present the adjournment proposal for a vote of stockholders and thereby cause the Hologic special meeting to be adjourned without a vote on the proposal and seek during that period to convince the holders of those shares to change their votes to vote in favor of the proposal.

Hologic s board of directors believes that, if the number of shares of common stock voting in favor of any of the proposals presented at the Hologic special meeting is insufficient to approve a proposal, it is in the best interests of Hologic s stockholders to enable Hologic s board of directors, for a limited period of time, to continue to seek to obtain a sufficient number of additional votes in favor of the proposal.

HOLOGIC BYLAWS AMENDMENT

In connection with entering into the merger agreement, the Hologic board of directors approved amending and restating Hologic s current bylaws, which are referred to as the Hologic bylaws. The amendments to the Hologic bylaws will become effective no later than, but only upon, the effective time of the merger. If the merger is not completed for any reason, the changes described in this section will be of no force and effect. The following discussion describes the material changes to the Hologic bylaws and is qualified in its entirety by reference to the amended and restated bylaws of Hologic attached as Annex I to this joint proxy statement/prospectus, which contains the complete text of the Hologic bylaws that will take effect only upon completion of the merger. Additional changes to Hologic s bylaws made in connection with entering into the merger agreement are described under Comparison of Stockholders Rights beginning on page 158. Unless otherwise discussed, the current Hologic bylaws do not contain provisions discussed below and such amendments will be additions.

Board Composition.

The amended Hologic bylaws will provide that at the effective time of the merger, the Hologic board of directors will be comprised of eleven directors. The board of directors of Hologic will consist of six continuing Hologic directors, four designated by the continuing Hologic directors, each of whom will be independent and

155

two persons who are not independent, and five continuing Cytyc directors, three designated by the continuing Cytyc directors, each of whom will be independent and two persons who are not independent.

Before the annual meeting of stockholders to be held in 2009 (the 2009 Annual Meeting) all vacancies resulting from the cessation of service of an independent continuing Hologic director will be filled by a nominee proposed by a majority of the remaining continuing Hologic directors and all vacancies resulting from the cessation of service of an independent continuing Cytyc director will be filled by a nominee proposed by a majority of the remaining continuing Cytyc directors. All remaining vacancies shall be filled by a nominee proposed and selected by the nominating and corporate governance committee of the board of directors. The terms—continuing Hologic directors—and—continuing Cytyc directors—shall mean, respectively, the directors of Hologic or Cytyc, as the case may be, who were selected to be directors of Hologic as of the effective time of the merger by Hologic or Cytyc, as the case may be, prior to the effective time of the merger, and any additional directors of Hologic who take office after the effective time of the merger who are nominated, or proposed to the nominating and corporate governance committee, by a majority of the continuing Hologic directors or the continuing Cytyc directors, as the case may be. Any continuing Hologic director or continuing Cytyc director who is then serving as a Hologic director shall be nominated by the nominating and corporate governance committee for election as a Hologic director at Hologic sannual meeting of stockholders to be held in 2008, subject to the fiduciary duties of the members of the nominating and corporate governance committee. For the 2009 Annual Meeting and thereafter, the combined company s nominations for persons to serve on the board of directors shall be determined by the nominating and corporate governance committee. Prior to the 2009 Annual Meeting, any amendment of or change to the provisions of the amended Hologic bylaws providing for board composition shall require the affirmative vote of at least 75% of the full board of directors.

Board Committees.

The amended Hologic bylaws provide that the board of directors shall designate a compensation committee, an audit committee, and a nominating and corporate governance committee.

Indemnification.

The amended Hologic bylaws provide that Hologic will indemnify any person who was or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was a director or officer of Hologic or, while a director or officer of Hologic, is or was serving at the request of Hologic as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust or other enterprise, including service with respect to an employee benefit plan, where the basis of such proceeding is alleged action in an official capacity as a director, officer, employee or agent, against all expense, liability and loss (including attorneys fees, judgments, fines, ERISA excise taxes or penalties and amounts paid in settlement) reasonably incurred or suffered by such person in connection with such proceeding. Hologic will indemnify any person seeking indemnification in connection with a proceeding brought by that person only if the proceeding (or part thereof) was authorized by the Hologic board of directors. The current Hologic bylaws permit indemnification of officers and directors, but do not require Hologic to provide such persons with indemnification.

Chief Executive Officer.

The amended Hologic bylaws provide that the chief executive officer will be an officer of Hologic as appointed by the board of directors. Unless there is a chairman of the board, or the board of directors votes otherwise, when present, the chief executive officer will preside at meetings of the stockholders and the board of directors. The board of directors will designate the duties and powers of such office.

Chairman Emeritus

The amended Hologic bylaws also provide that the board of directors may appoint one or more positions for former directors designated as director emeritus or chairman emeritus. Former directors filling these positions will function as advisors to the board of directors and be able to attend all meetings of the board of directors, but will have no right to vote as a director on any matter.

156

DESCRIPTION OF HOLOGIC CAPITAL STOCK

The following summary of the material terms of the capital stock of Hologic is not intended to be a complete summary of all the rights and preferences of Hologic s capital stock. Hologic and Cytyc urge you to read the Hologic charter, the Hologic bylaws, the amended Hologic charter and the amended Hologic bylaws in their entirety, and refer to the applicable provisions of Delaware law, for a complete description of the rights and preferences of Hologic s capital stock. Copies of the Hologic charter and Hologic bylaws will be sent to holders of shares of Hologic common stock or Cytyc common stock upon request. See Where You Can Find More Information beginning on page 192. The proposed amendment of the Hologic charter is described in Hologic Charter Amendment beginning on page 143 and the full text of the amendment of the Hologic charter is attached as Annex H to this joint proxy statement/prospectus. The proposed amended Hologic bylaws are described in Hologic Bylaws Amendment beginning on page 155 and the full text of the amended and restated Hologic bylaws is attached as Annex I to this joint proxy statement/prospectus.

Authorized Capital Stock

Before the Merger. Under the Hologic charter, Hologic s authorized capital stock consists of 90,000,000 shares of Hologic common stock, \$0.01 par value, 1,622,685 shares of preferred stock, \$0.01 par value, of which 30,000 shares have been designated series A junior participating preferred stock. At [], 2007, the Hologic record date, there were issued and outstanding:

approximately [] shares of Hologic common stock;

employee stock options and other equity-based awards to acquire an aggregate of approximately [] shares of Hologic common stock; and

no shares of preferred stock.

After the Merger. Immediately prior to the effective time of the merger, the Hologic charter will be amended to increase the authorized number of shares of Hologic common stock to 300,000,000. See Hologic Charter Amendment beginning on page 143.

Hologic Common Stock

Hologic Common Stock Outstanding. The outstanding shares of Hologic common stock are, and the shares of Hologic common stock issued pursuant to the merger will be duly authorized, validly issued, fully paid and nonassessable.

Voting Rights. Each holder of a share of Hologic common stock is entitled to one vote for each share held of record on the applicable record date on all matters submitted to a vote of stockholders.

Dividend Rights. Subject to any preferential dividend rights granted to the holders of any shares of Hologic preferred stock that may at the time be outstanding, holders of shares of Hologic common stock are entitled to receive such dividends as may be declared from time to time by the Hologic board of directors out of funds legally available therefor.

Transfer Agent and Registrar

The American Stock Transfer & Trust Company is the transfer agent and registrar for the shares of Hologic common stock.

Stock Exchange Listing; Delisting and Deregistration of Cytyc Common Stock

It is a condition to the merger that the shares of Hologic common stock issuable in the merger be approved for listing on the Nasdaq Global Select Market on or before the effective time of the merger, subject to official notice of issuance. If the merger is completed, shares of Cytyc common stock will cease to be listed on the Nasdaq Global Select Market.

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157

COMPARISON OF STOCKHOLDER RIGHTS

Hologic and Cytyc are both incorporated under Delaware law. Any differences, therefore, in the rights of Hologic stockholders and Cytyc stockholders arise primarily from differences in their respective certificates of incorporation and bylaws. Upon completion of the merger, the charter and bylaws of Hologic will be identical in all respects to the Hologic charter and Hologic bylaws after giving effect to the proposed Hologic charter amendment and Hologic bylaw amendments contemplated by the merger agreement and described in Hologic Charter Amendment and Hologic Bylaws Amendment, beginning on pages 143 and 155, respectively. Consequently, after the effective time of the merger, the rights of the former Cytyc stockholders will be determined by reference to the amended Hologic charter and amended Hologic bylaws. The following table compares the material differences between the current rights of Cytyc stockholders under the Cytyc certificate of incorporation and bylaws (which are referred to as the Cytyc certificate of incorporation and Cytyc bylaws, respectively), and the current rights of Hologic stockholders under the Hologic charter and Hologic bylaws, as well as the rights that those stockholders will have as Hologic stockholders under the amended Hologic charter and amended Hologic bylaws following the completion of the merger. This summary does not purport to be complete and is qualified in its entirety by reference to Cytyc s certificate of incorporation and bylaws, Hologic s charter and bylaws, Hologic s and Cytyc s respective rights plans and the relevant provisions of Delaware law.

Annexes H and I of this joint proxy statement/prospectus contain the complete text of the proposed amended Hologic charter and the complete text of the amended Hologic bylaws, respectively, that will, in each case, take effect as of the effective time of the merger. Copies of the Hologic charter, the Hologic bylaws, the Cytyc certificate of incorporation and the Cytyc bylaws will be sent to you upon request. See Where You Can Find More Information beginning on page 192.

Corporate Governance	Cytyc Stockholder Rights The rights of Cytyc stockholders are currently governed by Delaware law and the Cytyc certificate of incorporation and the Cytyc bylaws.	Hologic Stockholder Rights The rights of Hologic stockholders are currently governed by Delaware law and the Hologic charter and the Hologic bylaws.
	Upon completion of the merger, the rights of Cytyc stockholders who become Hologic stockholders in the merger will be governed by Delaware law, the amended Hologic charter and the amended Hologic bylaws.	Upon completion of the merger, the rights of Hologic stockholders will be governed by Delaware law, the amended Hologic charter and the amended Hologic bylaws.
Authorized Capital	The authorized capital stock of Cytyc is 400,000,000 shares of common stock, \$0.01 par value, 200,000 shares of Series A junior participating preferred stock, \$0.01 par value, and 4,800,000 shares of other preferred stock, \$0.01 par value.	The authorized capital stock of Hologic is set forth under Description of Hologic Capital Stock Authorized Capital Stock beginning on page 157.
Voting	Each holder of Cytyc common stock shall have one vote in respect of each share of Cytyc common stock.	Each holder of Hologic common stock has the right to one vote for each share of Hologic common stock.

158

Number of Directors

Cytyc Stockholder Rights

Cytyc s certificate of incorporation and bylaws provide that the number of directors shall be determined by resolution of the board of directors, but in no event shall the number be less than three. The Cytyc board of directors currently consists of nine directors.

Hologic Stockholder Rights

The Hologic charter provides and, upon completion of the merger the amended Hologic charter will provide, that the number of directors shall be fixed by or in the manner provided in the bylaws.

The Hologic bylaws provide and, upon completion of the merger the amended Hologic bylaws will provide, that the number of directors shall be fixed by the board of directors before each annual meeting of the stockholders, but in no event shall the number be less than three. The number of the directors may be changed by vote of a majority of the directors then in office or by the stockholders by vote of 80% of the shares of voting stock outstanding.

The Hologic board of directors currently consists of nine directors. Following the merger, the board of directors will consist of eleven directors. See Hologic Bylaws Amendment Board Composition beginning on page 155 for a description of the composition of the Hologic board of directors as of the effective time of the merger.

Classification of Board of Directors

The Cytyc certificate of incorporation and Cytyc bylaws provide for the division of the Cytyc board of directors into three classes with staggered three-year terms, with no class having more than one director more than any other class. If the number of directors is changed, any increase or decrease will be apportioned among the three classes so as to ensure that no one class has more than one director more than any other class.

Hologic does not have, and Hologic will not upon completion of the merger, have a classified board of directors.

Removal of Directors

Under Delaware law, where there is a classified board of directors, any director may be removed only for cause, unless the corporation s certificate of incorporation provides otherwise. The Cytyc certificate of incorporation provides that a director may be removed from office without cause only by the holders of at least 75% of the shares then entitled to vote at an election of directors. The Cytyc certificate of incorporation further provides that a

Upon completion of the merger, the amended Hologic bylaws will provide that a director may be removed from office only for cause by vote of the holders of 80% of the voting stock then outstanding. Hologic s bylaws prior to the merger provide that a director may be removed from office only for cause by vote of the holders of 80% of the voting stock then outstanding or by a vote of a majority of the directors then in office but only after

159

Cytyc Stockholder Rights

director may be removed for cause only by the holders of at least a majority of the shares then entitled to vote at an election of directors.

Vacancies on the Board of Directors The Cytyc certificate of incorporation provides that unless and until filled by the stockholders, any vacancy in the board of directors, however occurring, including a vacancy resulting from an enlargement of the board of directors, may be filled only by vote of a majority of the directors then in office, even if less than a quorum, or by a sole remaining director. Any director elected to fill a vacancy shall be elected for the unexpired term of his or her predecessor in office, if applicable, and a director chosen to fill a position resulting from an increase in the number of directors shall hold office until the next election of the class for which such director shall have been chosen and until his or her successor is elected and qualified, or until his or her earlier death, resignation or removal.

Board Quorum

The Cytyc certificate of incorporation and bylaws provide that a majority of the whole board of directors will constitute a quorum for the transaction of business and the act of a majority of the directors present at any meeting at which a quorum is present shall be the act of the board of directors of Cytyc, unless a different vote is specified by law, the certificate of incorporation or by the bylaws.

Stockholder Quorum

The Cytyc bylaws provide that the holders of a majority of the voting power of the shares of the capital stock of the corporation issued and outstanding and entitled to vote at a meeting, present in person or represented by proxy, shall constitute a quorum, unless the representation of a different number is required by law, the certificate of incorporation or the bylaws.

Stockholder Action by Written Consent

The Cytyc certificate of incorporation and bylaws provide that Cytyc stockholders may not take any action by written consent in lieu of a meeting.

Hologic Stockholder Rights

reasonable notice and opportunity to be heard before those proposing to remove such director.

The Hologic bylaws provide, and upon completion of the merger the amended Hologic bylaws will provide, that vacancies and newly created directorships resulting from death, resignation, disqualification or other causes, including a vacancy resulting from enlargement of the board, may be filled by a vote of a majority of the directors then in office, even if less than a quorum. The director appointed or elected shall hold office until his successor is chosen and qualified or his earlier resignation or removal.

See also Hologic Bylaws Amendment Board of Directors Board Composition beginning of page 155, which describes how vacancies in the board of directors will be filled following the merger until immediately prior to Hologic s 2009 annual meeting of stockholders.

The Hologic bylaws provide, and upon completion of the merger the amended Hologic bylaws will provide, that a majority of the directors shall constitute a quorum for the transaction of business and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the board of directors of Hologic, except where a different vote is required by law, by the charter or by the bylaws.

The Hologic bylaws provide, and upon completion of the merger the amended Hologic bylaws will provide, that the presence in person or by proxy at a meeting of the holders of a majority of the shares issued, outstanding and entitled to vote will constitute a quorum for all purposes, unless the representation of a different number is required by law.

Under Delaware law, any action required or permitted to be taken at a meeting of the stockholders may be taken without a meeting if the holders of the outstanding

160

Cytyc Stockholder Rights

Hologic Stockholder Rights

stock having not less than the minimum number of votes required to take or authorize such action provide their written consent. The Hologic charter does not, and the amended Hologic charter following the merger will not, include a provision which prohibits actions by written consent.

Special Meetings of Stockholders

Under Delaware law, a special meeting of stockholders may be called by the board of directors or by any other person authorized to do so in the corporation s certificate of incorporation or bylaws. Under Delaware law, the written notice of the special meeting must set forth the purpose or purposes for which the meeting is called.

Under Delaware law, a special meeting of stockholders may be called by the board of directors or by any other person authorized to do so in the corporation s charter or bylaws. Under Delaware law, the written notice of the special meeting must set forth the purpose or purposes for which the meeting is called.

Cytyc s certificate of incorporation and bylaws provide that special meetings of the stockholders may be called at any time only by Cytyc s president, its chairman of the board (if any) or a majority of the board of directors. The business to be transacted at a Cytyc special meeting of stockholders must be limited to the purposes stated in the notice of meeting.

Upon completion of the merger, the amended Hologic bylaws will provide that special meetings of stockholders may be called at any time by the president, chief executive officer or the board of directors. Hologic s current bylaws provide that the president or the board of directors may call such meetings.

Stockholder Proposals and Nominations

Currently, the Hologic bylaws do not contain any provisions that govern the submission of proposals by stockholders. Stockholders may, however, make recommendations to Hologic s nominating committee of candidates for its consideration as nominees for director. The persons so recommended should at a minimum meet the criteria and qualifications referred to in Hologic s nominating committee charter.

The Cytyc bylaws provide that a Cytyc stockholder wishing to bring business before the annual Cytyc stockholders meeting must provide proper and timely written notice to Cytyc s secretary. To be timely, the notice must be delivered to Cytyc s secretary at Cytyc s principal executive offices not later than the close of business on the day that is the 120th day nor earlier than the close of business on the 150th day before the first anniversary of the date of the proxy statement delivered in connection with the preceding year s annual meeting. However, if either (i) the date of the annual meeting is more than 30 days before or more than 60 days after such anniversary date or (ii) no proxy statement was delivered to stockholders in connection with the preceding year s annual meeting, then notice by a stockholder to be timely must be delivered not earlier than the close of business on the 90th day before the annual meeting

Upon completion of the merger, the amended Hologic bylaws will provide that for nominations of directors or other business to be properly brought before an annual meeting of stockholders by a stockholder, the stockholder must have given timely notice thereof in writing to the secretary of Hologic and any such proposed business other than the nominations of persons for election to the board of directors must constitute a proper matter for stockholder action. To

161

Cytyc Stockholder Rights

and not later than the close of business on the later of the 60th day prior to such annual meeting or the close of business on the 10th day following the day on which public announcement of the date of such meeting is first made by Cytyc.

A stockholder s notice to Cytyc regarding the proposal of business to be brought before an annual meeting must contain certain required information as described in the Cytyc bylaws.

Stockholder nominations at an annual meeting. The Cytyc bylaws provide that Cytyc stockholders wishing to nominate candidates for election to the Cytyc board of directors at an annual meeting must give proper and timely written notice to Cytyc s secretary. Except as set forth below, to be timely, the notice must be delivered to Cytyc s secretary at Cytyc s principal executive offices within the timeframe described under

Stockholder Proposals and Nominations above with respect to the submission of stockholder proposals.

In the event that the number of directors to be elected to the board of directors is increased and there is no public announcement by Cytyc naming all of the nominees for director or specifying the size of the increased board of directors at least 70 days prior to the first anniversary of the preceding year s annual meeting (or, if the annual meeting is held more than 30 days before or 60 days after such anniversary date, at least 70 days prior to such meeting), a stockholder s notice shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it is delivered to Cytyc s secretary not later than the close of business on the 10th day following the day on which such public announcement is first made by Cytyc.

Stockholder nominations at a special meeting. The Cytyc bylaws provide that if Cytyc calls a special meeting of stockholders for the purpose of electing

Hologic Stockholder Rights

timely, a stockholder s notice must be delivered to the secretary at the principal executive offices of Hologic not later than the close of business on the 90th day nor earlier than the close of business on the 120th day prior to the first anniversary of the preceding year s annual meeting

Such stockholder s notice must contain required information as described in the amended Hologic bylaws.

162

Cytyc Stockholder Rights

one or more directors, then any stockholder who is a stockholder of record at the time of giving of notice of the special meeting, who shall be entitled to vote at the meeting and who complies with the notice procedures set forth in the bylaws may nominate a candidate or candidates (as the case may be) for election at such special meeting. In order to make a nomination at a special meeting, a stockholder must provide proper and timely written notice to Cytyc s secretary. To be timely, the notice must be delivered to Cytyc s secretary at Cytyc s principal executive offices not earlier than the 90th day prior to such special meeting nor later than the later of (i) the close of business of the 60th day prior to such special meeting or (ii) the close of business of the 10th day following the day on which public announcement is first made of the date of such special meeting and of the nominees proposed by the board of directors to be elected at such meeting.

Hologic Stockholder Rights

A stockholder s notice to Cytyc regarding director nominations must contain certain required information as described in the Cytyc bylaws.

Vote Required for Certain Stockholder Actions Under Delaware law, except as otherwise required by Delaware law and unless the certificate of incorporation or bylaws of the corporation provide otherwise, in all matters other than the election of directors, the affirmative vote of the majority of voting power present in person or represented by proxy at the meeting and entitled to vote on the subject matter is an act of the stockholders. Cytyc s bylaws alter this default rule.

Under Delaware law, except as otherwise required by Delaware law and unless the certificate of incorporation or bylaws of the corporation provide otherwise, in all matters other than the election of directors, the affirmative vote of the majority of voting power present in person or represented by proxy at the meeting and entitled to vote on the subject matter is an act of the stockholders.

Under Cytyc s bylaws, except as otherwise required by Delaware law and unless the certificate of incorporation or bylaws of the corporation provide otherwise (and except with respect to the vote required to approve any amendments to the Cytyc certificate of incorporation or bylaws described below under Amendment to Certificate of Incorporation and Amendment of Bylaws) in all matters other than the election of directors, the affirmative vote

Under Hologic s bylaws, and following completion of the merger under the amended Hologic bylaws, except as otherwise required by Delaware law and unless the Hologic charter or Hologic bylaws provide otherwise (see Certain Business Combinations Anti-takeover Provisions, Amendment to Certificate of Incorporation, Amendment of Bylaws and Removal of Directors) in all matters, the affirmative vote of the majority of the votes cast by stockholders present in person or represented by proxy at the

163

Cytyc Stockholder Rights

of the majority of the votes cast by stockholders present in person or represented by proxy at the meeting and entitled to vote on the subject matter is an act of the stockholders.

Hologic Stockholder Rights

meeting and entitled to vote on the subject matter is an act of the stockholders.

Generally, under Delaware law, the approval of any merger or consolidation or a sale of all or substantially all of a corporation s assets requires the affirmative vote of a majority of the total votes represented by the outstanding stock of the corporation entitled to vote on such matter.

Generally, under Delaware law, the approval of any merger or consolidation or a sale of all or substantially all of a corporation s assets requires the

affirmative vote of a majority of the total votes represented by the outstanding stock of the corporation entitled to vote on such matter.

Amendment of Certificate of Incorporation

Under Delaware law, the Cytyc certificate of incorporation may be amended by the adoption of a resolution of the board of directors, followed by the vote of a majority of the outstanding voting power entitled to vote thereon and a majority of the outstanding stock of each class entitled to vote thereon separately as a class (if any). Except for the matters specified below, the Cytyc certificate of incorporation alters this general rule.

Under Delaware law, the Hologic charter may be amended by the adoption of a resolution of the board of directors, followed by the vote of a majority of the outstanding voting power entitled to vote thereon and a majority of the outstanding stock of each class entitled to vote thereon separately as a class (if any). Except for the matters specified below, the Hologic charter generally provides, and upon completion of the merger the amended Hologic charter will generally provide, that charter amendments may be made in accordance with the default provisions of Delaware law.

Except as set forth in the next sentence, the Cytyc certificate of incorporation provides that the affirmative vote of the holders of shares of voting stock representing at least 66-2/3% of the voting power of all of the then outstanding shares of the capital stock entitled to vote generally in the election of directors, voting together as a single class, shall be required to amend the certificate of incorporation. However, amendments to Article FIRST (corporation s name), Article SECOND (name of registered agent and address of registered office), Article THIRD (nature of the business to be conducted) and any amendment to increase the authorized number of shares or change the par value of the capital stock

The Hologic charter provides, and upon completion of the merger, the amended Hologic charter will provide, that the affirmative vote of the holders of 80% of the outstanding common stock is required to approve amendments to Hologic s charter or to approve extraordinary transactions that are required to be approved by stockholders under Delaware law, including mergers, sales of substantially all of the Company s assets and dissolution, if the actions are not approved by a majority of Hologic s continuing directors (as defined below).

164

Cytyc Stockholder Rights

set forth in Article FOURTH (capitalization) may be made in accordance with the default positions of Delaware law discussed above.

The Cytyc certificate of incorporation further provide that no amendment or repeal of Article EIGHTH (limitation on liability) shall apply to or have any effect on the liability or alleged liability of any director for or with respect to any acts or omissions of such director occurring prior to such amendment or repeal.

Hologic Stockholder Rights

Hologic s charter provides, and upon completion of the merger, the amended Hologic charter will provide, that the affirmative vote of the holders of only a majority of the outstanding common stock is required to approve such matters if they have been approved by Hologic s continuing directors. The term continuing director is defined to mean:

any member of the board of directors who is unaffiliated with a related person and was a member of the board of directors prior to the time any such person became a related person; and

any successor to such a continuing director who is not affiliated with any related person and is recommended to succeed a continuing director by a majority of the continuing directors then on the board of directors.

Hologic s charter expressly authorizes, and upon completion of the merger, the amended Hologic charter will expressly authorize, the board of directors to adopt, amend or repeal any or all of the bylaws of the corporation.

The Hologic bylaws provide, and upon completion of the merger the amended bylaws will provide, that they may be amended, altered or repealed by the stockholders at any annual or special meeting by vote of a majority of all shares outstanding and entitled to vote, except that where the effect of the amendment would be to reduce any voting requirement otherwise required by law, Hologic s charter or Hologic s bylaws, such amendment shall require the vote that would have been required by such other provision. Further, the Hologic bylaws provide, and upon completion of the merger the amended bylaws will provide, that the bylaws may be amended or altered by the board of directors at a meeting duly called for the purpose by majority vote of the directors then in office, except that directors shall not amend the bylaws in a

Amendment of Bylaws

The Cytyc bylaws may be amended, altered or repealed by the Cytyc stockholders by holders of at least 66²/3% of the voting power of the shares of the outstanding shares of capital stock entitled to vote generally in the election of directors. The Cytyc certificate of incorporation and bylaws provide that the Cytyc board of directors may also adopt, amend, alter or repeal the Cytyc bylaws.

165

Cytyc Stockholder Rights

Hologic Stockholder Rights

manner which changes the stockholder voting requirements for any action, alters or abolishes any preferential right or right of redemption applicable to a class or series of stock with shares already outstanding, or alters the provision for amendment of bylaws itself.

Limitation on Liability

The Cytyc certificate of incorporation provides that no director (including any advisory director) will be personally liable to the corporation or its stockholders for monetary damages for breaches of fiduciary duty, except for: The Hologic charter provides, and upon completion of the merger the amended Hologic charter will provide, that no director shall be personally liable to the corporation or its stockholders for monetary damages for any breach of fiduciary duty by such director as a director. Notwithstanding the foregoing, the Hologic charter provides, and the amended Hologic charter will continue to provide, that a director shall be liable to the extent provided by applicable law for:

any breach of the director s duty of loyalty to Cytyc or its stockholders;

breach of the director s duty of loyalty to the corporation or its stockholders;

acts or omissions not in good faith or which involve intentional misconduct or knowing violation of the law;

any violation of Section 174 of the DGCL relating to the unlawful payment of a dividend or unlawful stock purchases or redemptions; or

acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law:

any transaction from which the director derived an improper personal benefit.

unlawful payment of dividend or unlawful stock purchase or redemption; or

As set forth above under Amendment to Certificate of Incorporation, the Cytyc certificate of incorporation further provides that no amendment or repeal of this provision of the certificate of incorporation shall apply to or have any effect on the liability or alleged liability of any director for or with respect to any acts or

omissions of such director occurring prior to such

amendment or repeal.

any transaction from which the director derived an improper personal benefit.

Indemnification

Proceedings other than by or in the right of Cytyc. The Cytyc certificate of incorporation provides that any person who was or is, or is threatened to be made a party to any threatened, pending or completed proceeding (other than a proceeding by or in the right of Cytyc), by

The Hologic bylaws provide that Hologic may, and upon completion of the merger, the amended Hologic bylaws will provide, that Hologic will indemnify its directors and officers for any proceedings in which they are involved by reason of the fact that they are or were a director or officer of corporation to the fullest extent permitted by Delaware law.

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166

Cytyc Stockholder Rights

reason of the fact that he is or was, or has agreed to become, a director or officer of Cytyc, or is or was serving, or has agreed to serve, at the request of Cytyc, as a director, officer or in a similar capacity with another entity, will be indemnified against all expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred if he acted in good faith and in a manner he reasonably believed to be in, or not opposed to, the best interest of Cytyc, and with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. The Cytyc certificate of incorporation also provides that Cytyc may provide indemnification to other employees and agents of Cytyc.

Proceeding by or in the rights of Cytyc. The Cytyc certificate of incorporation provides that any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of Cytyc by reason of the fact that he is or was, or has agreed to become, a director or officer of Cytyc, or is or was serving, or has agreed to serve, at the request of Cytyc, as a director, officer or in a similar capacity with another entity, will be indemnified against all expenses and amounts paid in settlement actually and reasonably incurred by him if he acted in good faith and in a manner he reasonably believed to be in, or not opposed to, the best interests of Cytyc. However, indemnification shall not be made if such person shall have been adjudged to be liable to the corporation unless and only to the extent that the court shall determine upon application that, despite the adjudication of such liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnification for such expenses as the court shall deem proper.

In addition, subject to certain exceptions, in the event that Cytyc does not assume the defense of any proceeding, Cytyc is required

Hologic Stockholder Rights

The Hologic bylaws provide that Hologic may pay, and upon completion of the merger the amended Hologic bylaws will provide that Hologic will pay, for the expenses incurred by an officer or director in defending any civil or criminal proceeding in advance of the final disposition of the proceeding to the fullest extent permitted by Delaware law. Under Delaware law, such expenses may be paid upon receipt of an undertaking by or on behalf of a director or officer to repay the amount if it is ultimately determined that he or she is not entitled to be indemnified by the corporation.

The Hologic bylaws provide, and upon completion of the merger the amended

Hologic bylaws will provide, that the corporation may, by action of the board of directors, provide indemnification to employees and agents of the corporation to the extent the board of directors determines is appropriate and authorized by Delaware law.

In addition, the Hologic bylaws provide, and upon completion of the merger the amended Hologic bylaws will provide, that the corporation has the power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation against any expense, liability or loss incurred by such person in any such capacity, whether or not the corporation would have the power to indemnify him against such liability under Delaware law.

Hologic has also entered into indemnification agreements with its directors. The indemnification agreements are intended to provide the maximum protection permitted by Delaware law with respect to the indemnification of directors. Hologic may also enter into similar agreements with certain of its officers who are not also directors. Hologic maintains directors—and officers—liability insurance.

Cytyc Stockholder Rights

to pay expenses incurred in connection with a proceeding in advance of the final disposition of the proceeding. However, the payment of the expenses in advance of the final disposition will be made only upon delivery to Cytyc of an undertaking, by or on behalf of such director or officer, to repay all amounts advanced if it is ultimately determined that such director or officer is not entitled to be indemnified.

In addition, the Cytyc certificate of incorporation provides that the corporation has the power to purchase and maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of the corporation or another enterprise against any expense, loss or liability incurred by such person in any such capacity, whether or not the corporation would have the power to indemnify him against such liability under Delaware law.

The Cytyc certificate of incorporation provides that if Delaware law is amended to expand further the indemnification permitted to indemnities covered by the certificate of incorporation, then Cytyc shall indemnify such persons to the fullest extent permitted by Delaware law, as so amended.

The Cytyc certificate of incorporation provides that if Cytyc is merged into or consolidated with another corporation and it is not the surviving corporation, the surviving corporation shall assume the obligations of Cytyc under the Cytyc certificate of incorporation with respect to any proceeding arising out of or relating to matters occurring prior to the date of such merger or consolidation.

Under Delaware law, except as set forth in the certificate of incorporation, a corporation is generally permitted to declare and pay dividends out of surplus (defined as the excess, if any, of net assets over capital) or, if no surplus exists, out of net profits for the fiscal year in which the dividend is declared and/or the preceding fiscal year. However, the directors of a

Hologic Stockholder Rights

Under Delaware law, except as set forth in the charter, a corporation is generally permitted to declare and pay dividends out of surplus (defined as the excess, if any, of net assets over capital) or, if no surplus exists, out of net profits for the fiscal year in which the dividend is declared and/or the preceding fiscal year. However, the directors of a corporation may not pay any

Dividends

168

Cytyc Stockholder Rights

corporation may not pay any dividends out of net profits if the capital of the corporation has been reduced to an amount less than the aggregate amount of capital represented by the issued and outstanding stock of all classes having a preference upon the distribution of assets

The Cytyc certificate of incorporation provides that dividends may be declared and paid on the common stock from funds lawfully available as and when determined by the board of directors and subject to any preferential dividend rights of any then outstanding preferred stock.

Stockholder Rights Plan

Cytyc has adopted a stockholder rights plan pursuant to a rights agreement between Cytyc and Computershare Trust Company, N.A. (successor to EquiServe Trust Company, N.A., which was a successor to BankBoston, N.A.), as rights agent.

In connection with the adoption of the rights plan, on August 6, 1997, the board of directors declared a dividend of one preferred stock purchase right for each outstanding share of common stock to stockholders of record at the close of business on September 5, 1997. Each right entitles the holder, subject to the terms and conditions in the rights plan, to purchase from the company a unit consisting of one one-hundredth of a share of Series A junior participating preferred stock, \$0.01 par value, at a purchase price of \$110 per unit, subject to adjustment.

The rights are represented by Cytyc's common stock certificates and are not immediately exercisable. The rights only become exercisable and begin to trade separately from shares of common stock after the occurrence of certain events as described in the rights plan. If the rights have become exercisable and certain triggering events described in the rights plan have occurred, all holders of rights, other than the acquiring person or group, would be entitled to acquire shares of Cytyc's common stock at a 50% discount to the then-current market price. In addition, if

Hologic Stockholder Rights

dividends out of net profits if the capital of the corporation has been reduced to an amount less than the aggregate amount of capital represented by the issued and outstanding stock of all classes having a preference upon the distribution of assets.

The Hologic bylaws provide, and upon completion of the merger the amended Hologic bylaws will provide, that dividends upon the capital stock may, in its discretion, be declared by the board of directors.

Hologic s board of directors has adopted a stockholder rights plan. As a result, Hologic issued one preferred share purchase right for each outstanding share of common stock. One preferred share purchase right will be issued for each additional share of common stock that the

company issues. The rights become exercisable if, without the prior approval of Hologic s board of directors, a person or group acquires 15% or more of Hologic s outstanding common stock or commences or announces a tender or exchange offer which would result in such ownership. Each right that becomes exercisable entitles the registered holder to purchase one half of one-thousandth of a share of the junior participating preferred stock at a purchase price of \$60.00 per one-thousandth of a share, subject to adjustment.

If, after the rights become exercisable, Hologic was to be acquired through a merger or other business combination transaction or 50% or more of the assets or earning power were sold, each right would permit the holder to purchase, for the purchase price, common stock of the surviving company having a market value of twice the purchase price.

The rights expire on January 1, 2013, unless earlier redeemed or exchanged by Hologic. The purchase price payable and the shares of preferred stock issuable upon

169

Cytyc Stockholder Rights

certain triggering events have occurred and Cytyc is acquired in a merger, each right will entitle the holder to purchase shares of the acquiring company at a 50% discount to the then-current market price. The rights expire on September 5, 2007. In addition, Cytyc s board of directors retains the authority to redeem, at \$0.01 per right, the rights at any time until ten days following the acquisition by a person or group of 15% or more of the outstanding common stock. In addition, Cytyc s board of directors retains the authority to redeem, at \$0.01 per right, the rights at any time until ten days following the acquisition by a person or group of 15% or more of the outstanding common stock.

Cytyc s stockholder rights agreement was amended on May 20, 2007, to render it inapplicable to the merger agreement, the merger and the other transactions

Certain Business Combinations / Anti takeover Provisions Under Delaware law, a corporation can elect not to be governed by Section 203 of the DGCL, which generally protects publicly held Delaware corporations from unfair transactions and tactics by persons who acquire large blocks of stocks without prior board approval. Cytyc has not made this election and is therefore subject to the restrictions of Section 203 of the DGCL.

May 20, 2007, to render it inapplicable to the merger agreement, the merger and the other transactions specifically contemplated thereby, and to provide that the rights agreement will automatically terminate upon

the effective time of the merger.

In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a business combination with an interested stockholder for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination or the transaction by which the person became an interested stockholder is approved in a prescribed manner. A business combination includes certain mergers, asset sales and other transactions resulting in a financial

Hologic Stockholder Rights

exercise of the rights are subject to adjustment as described in the rights plan. In addition, Hologic s board of directors retains the authority to redeem, at \$0.001 per right, the rights at any time prior to the acquisition by a person or group of 15% or more of the outstanding common stock.

On May 20, 2007, in connection with the signing of the merger agreement, Hologic amended its rights plan to render it inapplicable to the merger agreement, merger and the other transactions contemplated thereby.

Hologic s charter and bylaws both before and after the merger and Hologic s shareholder rights plan contain additional provisions, which may render more difficult an unfriendly tender offer, proxy contest, merger or other change in control. These provisions include a so-called anti-greenmail provision, a super-majority voting provision, and a provision that requires the board of directors to consider social, economic and other factors in evaluating whether certain types of corporate transactions proposed by another party are in the best interests of Hologic and its stockholders.

<u>Charter and Bylaws</u>. Hologic s charter and the amended Hologic charter include several other provisions in addition to the authorization of blank check preferred stock which may have the effect of making an unfriendly tender offer, proxy contest, merger or other change in control of Hologic more difficult. These

170

Cytyc Stockholder Rights

benefit to the interested stockholder. Subject to alone or together with his affiliates and associates, owns 15% or more of the corporation s voting stock.

These provisions could have the effect of delaying, deferring or preventing a change in control of Cytyc or reducing the price that certain investors might be willing to pay in the future for Cytyc common stock.

Hologic Stockholder Rights

provisions are intended to enhance the likelihood of exceptions, an interested stockholder is a person who, continuity and stability in the composition of Hologic s board of directors and in the policies formulated by the board of directors and to discourage certain types of transactions that may involve a change in control. These provisions are also designed to reduce Hologic s vulnerability to unsolicited acquisition proposals and to discourage certain tactics that may be used in proxy fights. These provisions, however, could have the effect of discouraging others from making tender offers for the shares of Hologic s common stock and, as a consequence, they also may inhibit fluctuations in the market price of the shares of the common stock which could result from actual or rumored takeover attempts.

> Hologic s charter and the amended Hologic charter contain a so-called anti-greenmail provision. This provision is intended to discourage speculators who accumulate beneficial ownership of a significant block of stock of a company and then, under the threat of making a tender offer or instigating a proxy contest or some other corporate disruption, succeed in extracting from the company a premium price to repurchase the shares acquired by the speculator. This tactic has become known as greenmail. The anti-greenmail provision prohibits Hologic from purchasing any shares of its common stock from a related person, who has beneficially owned such common stock or right to purchase such common stock for less than two years prior to the date of such purchase, at a per share price in excess of the fair market value at the time of the purchase unless the purchase is approved by the holders of two-thirds of the outstanding shares of Hologic s common stock, excluding any votes cast by the related person. The term related person means any person (other than the

171

Cytyc Stockholder Rights

Hologic Stockholder Rights

company or a subsidiary of the company or a founder of the company) who acquires more than 5% of Hologic s voting stock. Stockholder approval is not required for such purchases when the offer is made available on the same terms to all holders of shares of the common stock or when the purchases are effected on the open market.

The Hologic charter also provides, and upon completion of the merger, the amended Hologic charter will provide, that the affirmative vote of the holders of 80% of the outstanding common stock is required to approve amendments to Hologic s charter or to approve extraordinary transactions that are required to be approved by stockholders under Delaware law, including mergers, sales of substantially all of the Company s assets and dissolution, if the actions are not approved by a majority of Hologic s continuing directors.

Another provision included in Hologic s charter and the amended Hologic charter requires the board of directors to consider social, economic and other factors in evaluating whether certain types of corporate transactions proposed by another party are

in the best interests of the company and its stockholders. These transactions include (i) the purchase or exchange of securities or property for any of Hologic s outstanding equity securities; (ii) the merger or consolidation of Hologic with another corporation; and (iii) the purchase or other acquisition of all or substantially all of the company s properties and assets.

The authority of Hologic s board of directors to issue authorized but unissued shares of common stock might be considered as having the effect of discouraging an attempt by another person or entity to effect a takeover or otherwise gain control of Hologic, since the issuance of additional shares of common stock would dilute the voting power of Hologic s common stock then outstanding.

Table of Contents 248

172

Cytyc Stockholder Rights

Hologic Stockholder Rights

Hologic s bylaws provide, and upon completion of the merger the amended Hologic bylaws will provide, that stockholders seeking to nominate candidates for election as directors at an annual or special meeting of stockholders must meet specified procedural requirements. These provisions may preclude stockholders from making nominations for directors at an annual or special meeting of stockholders.

Upon completion of the merger, the amended Hologic bylaws will provide that prior to the annual meeting of stockholders to be held in 2009, a vote of at least 75% of the full board of directors will be required to amend the provisions regarding board composition, as further described above in Hologic Bylaws Amendment Board Composition beginning on page 155.

See also the description of the Rights Plan above under Stockholders Rights Plan.

<u>Section 203 of the DGCL</u>. The Hologic charter subjects, and upon completion of the merger the amended Hologic charter

will subject, the corporation to the restrictions on business combinations of Section 203 of the DGCL. This section prohibits publicly held Delaware corporations from engaging in a business combination with an interested stockholder for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. A business combination includes certain mergers, asset sales and the other transactions resulting in a financial benefit to the interested stockholder. Subject to certain exceptions, an interested stockholder is a person who, alone or together with his or her affiliates and associates, owns 15% or more of a corporation s voting stock.

The foregoing provisions could have the effect of delaying, deferring or preventing a change in control of Hologic or reducing the price that certain investors might be willing to pay in the future for shares of Hologic common stock.

173

UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION

The following unaudited pro forma condensed combined financial statements of Hologic have been prepared to give effect to the proposed merger of Hologic and Cytyc. The unaudited pro forma condensed combined balance sheet as of March 31, 2007, and the unaudited pro forma condensed combined statements of operations for the six months ended March 31, 2007 and the year ended September 30, 2006, are presented herein to reflect the proposed merger. The unaudited pro forma condensed combined balance sheet combines the unaudited condensed balance sheets of Hologic and Cytyc as of March 31, 2007 and gives effect to the merger as if it had been completed on that date. The unaudited pro forma condensed combined statements of operations for the six months ended March 31, 2007 combines the historical results of Hologic and the unaudited pro forma combined results of Cytyc and gives effect to the merger as if it had occurred on September 25, 2005. The unaudited proforma condensed combined statement of operations for the year ended September 30, 2006 combines the unaudited pro forma combined results of Hologic for the year ended September 30, 2006 and the unaudited pro forma combined results of Cytyc for the year ended December 31, 2006 and gives effect to the merger as if it occurred on September 25, 2005. Hologic s unaudited pro forma condensed combined statement of operations for the year ended September 30, 2006 gives effect to Hologic s July 2006 acquisitions of R2 Technology, Inc. and Suros Surgical Systems, Inc. as if they had occurred on September 25, 2005. Cytyc s unaudited pro forma condensed combined statements of operations for the year ended December 31, 2006 and the six months ended March 31, 2007 gives effect to Cytyc s April 2007 acquisition of the Adeza Biomedical Corporation as if it had occurred on January 1, 2006. Hologic and Cytyc have different fiscal year end dates. However, as the difference is less than 93 days, Cytyc s results for the year ended December 31, 2006 have been used to prepare the unaudited pro forma condensed combined statement of operations for the year ended September 30, 2006, as permitted under Rule 11-02 of Regulation S-X. As a result, Cytyc s results of operations for the three months ended December 31, 2006 are included in the unaudited pro forma condensed combined statements of operations for both the year ended December 31, 2006 and the six months ended March 31, 2007.

The unaudited pro forma condensed combined financial statements presented are based on the assumptions and adjustments described in the accompanying notes. The unaudited pro forma condensed combined financial statements are presented for illustrative purposes and do not purport to represent what the financial position or results of operations would actually have been if the merger occurred as of the dates indicated or what such financial position or results will be for any future periods. The unaudited pro forma condensed combined financial statements are based upon the respective historical and pro forma consolidated financial information of Hologic and Cytyc, and should be read in conjunction with:

the accompanying notes to the unaudited pro forma condensed combined financial statements;

the separate historical consolidated financial statements of Hologic as of and for the six months ended March 31, 2007 included in Hologic s quarterly report on Form 10-Q for the six months ended March 31, 2007, which is incorporated by reference into this joint proxy statement/prospectus;

the separate historical consolidated financial statements of Hologic as of and for the year ended September 30, 2006 included in Hologic s annual report on Form 10-K for the year ended September 30, 2006, which is incorporated by reference into this joint proxy statement/prospectus;

the separate historical consolidated financial statements of Cytyc as of and for the three months ended March 31, 2007, including the purchase price allocation for Adeza Biomedical Corporation in note 2(a) included in Annex B of this joint proxy statement/prospectus under the heading Cytyc Condensed Consolidated Financial Statements (Unaudited); and

the separate historical consolidated financial statements of Cytyc as of and for the year ended December 31, 2006 included in Annex B of this joint proxy statement/prospectus under the heading Cytyc Consolidated Financial Statements.

The unaudited pro forma condensed combined financial information was prepared using the purchase method of accounting. Based upon the

terms of the merger, including the premium paid by Hologic of

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174

approximately 33% for Cytyc s common stock and the cash portion of the merger consideration of \$16.50 per share or approximately 36% of the merger consideration, and other factors, such as the composition of the combined company s board of directors and senior management, Hologic is treated as the acquiror of Cytyc. Accordingly, we have adjusted the historical consolidated financial information to give effect to the impact of the consideration issued in connection with the merger. In the unaudited pro forma condensed combined balance sheet, Hologic s cost to acquire Cytyc has been allocated to the assets acquired and liabilities assumed based upon management s preliminary estimate of their respective fair values as of the date of the merger. Any differences between fair value of the consideration issued and the fair value of the assets and liabilities acquired will be recorded as goodwill. The amounts allocated to acquired assets and liabilities in the unaudited pro forma condensed combined financial statements are based on management s preliminary valuation estimates. Definitive allocations will be performed and finalized based on certain valuations and other studies that will be performed by Hologic with the services of outside valuation specialists after the closing of the merger. Accordingly, the purchase price allocation adjustments and related amortization reflected in the following unaudited pro forma condensed combined financial statements are preliminary, have been made solely for the purpose of preparing these statements and are subject to revision based on a final determination of fair value after the closing of the merger. For example, if the value of the definite-lived intangible assets increased by 10%, annual pro forma income from continuing operations would decrease by \$11,000.

The unaudited pro forma condensed combined statements of operations also include certain purchase accounting adjustments, including items expected to have a continuing impact on the combined results, such as increased depreciation and amortization expense on acquired tangible and intangible assets, increased interest expense on the assumed debt incurred to complete the merger, decreased interest income related to the assumed reduction in cash used to complete the merger, increased compensation expense related to Cytyc s non-vested stock options assumed to be converted into Hologic stock options upon the completion of the merger and the tax impact related to these pro forma adjustments.

The unaudited pro forma condensed combined statements of income do not include the impacts of any revenue, cost or other operating synergies that may result from the merger or any related restructuring costs. Cost savings, if achieved, could result from material sourcing and elimination of redundant costs including headcount and facilities.

The unaudited pro forma condensed combined financial statements reflect the contemplated borrowings of \$2,189,200 under the \$2,350,000 term loan facilities described under. The Merger. Financing of the Merger. Amounts borrowed under term loan facilities and the applicable interest rates have been estimated for the purposes of preparing these unaudited pro forma condensed combined financial statements and are subject to change based on the actual cash portion of the merger consideration, related fees and expenses and market changes that may result in a change in the actual interest rate applied to borrowings as compared to the rates assumed. For example, if the Libor rate increased by 10% as compared to the Libor rate assumed, annual pro forma income before provision for income taxes would decrease \$12,000. Similarly, if the applicable rate applied to the Libor rate increased 25 basis points compared to the rate assumed annual pro forma income before provision for income taxes would decrease \$5,500. The unaudited pro forma condensed combined financial statements do not reflect the impact of any re-financing of the debt incurred in connection with the merger, liquidity or other balance sheet repositioning that may be undertaken in connection with or subsequent to the merger.

The unaudited pro forma condensed combined financial statements do not reflect certain amounts resulting from the merger because we consider them to be of a non-recurring nature and are anticipated to be included in the income of Hologic within 12 months succeeding the transaction. These amounts include the estimated charge for acquired in-process research and development of approximately \$282,900, the cost of revenue impact of approximately \$39,000 for the write up of inventory to fair value and the reduction of deferred revenue of approximately \$3,300 for amounts that would not represent a legal obligation at the close of the transaction. Hologic and Cytyc have just recently begun collecting information in order to formulate detailed integration

175

plans to deliver planned synergies. However, any potential merger related synergies and/or cost savings as a result of the integration have not been included in the pro forma financial information.

Based on Hologic s preliminary review of Cytyc s summary of significant accounting policies disclosed in Cytyc s financial statements, the nature and amount of any adjustments to the historical financial statements of Cytyc to conform their accounting policies to those of Hologic are not expected to be significant. Upon completion of the merger, further review of Cytyc s accounting policies and financial statements may result in required revisions to Cytyc s policies and classifications to conform to Hologic s.

176

Unaudited Pro Forma Condensed Combined Balance Sheet

As of March 31, 2007

(In thousands)

	Reported As of March 31, 2007 March 31, 2007					
	** 1 *		G .	Pro Forma		Pro Forma
Assets	Hologic		Cytyc	Adjustments		Combined
Current Assets:						
Cash and cash equivalents	\$ 54,501	\$	132,781	\$ 2,189,226	A	\$ 50,000
Cush and Cush equivalents	Ψ 31,301	Ψ	132,701	(2,326,508)	A	φ 50,000
Investment securities			63,471	(2,320,300)	1.	63,471
Trade receivables, net of allowances	117,868		110,306			228,174
Inventories	92,410		32,353	38,847	В	163,610
Deferred tax assets	32,887		26,171	,		59,058
Prepaid expenses and other current assets	11,581		6,419			18,000
1 1	,		,			,
Total current assets	\$ 309,247	\$	371,501	\$ (98,435)		\$ 582,313
Property and equipment, net	63,868		150,737	10,450	В	225,055
Intangible assets, net	149,779		321,701	(321,701)	C	2,950,779
8	,,,,,,		, , ,	2,801,000	D	, ,
Goodwill, net	341,710		595,011	(595,011)	C	4,191,476
				3,849,766	D	
Other assets, net	6,903		9,302	(4,197)	A	44,008
				32,000	A	
Total assets	\$ 871,507	\$	1,448,252	\$ 5,673,872		\$ 7,993,631
Liabilities, preferred stock and stockholders equity						
Current liabilities:			***	A (200 Z00)		
Line of credit	\$	\$	200,508	\$ (200,508)	A	\$
Current portion of notes payable	1,830		15.500			1,830
Accounts payable	35,019		17,703			52,722
Accrued expenses	64,162		139,358	(2.204)	ъ	203,520
Deferred revenue	34,959		5,195	(3,384)	В	36,770
Total current liabilities	\$ 135,970	\$	362,764	\$ (203,892)		\$ 294,842
Long-term bank and other debt	7,022		250,000	2,189,226	A	2,196,248
				(250,000)	A	
Deferred income tax liabilities	59,941		91,707	1,141,472	E	1,169,865
				(123,255)	C	
Deferred revenue long term	6,794					6,794
Other non-current liabilities	3,523		25,251			28,774
Stockholders equity:						
Preferred stock						
Common stock	538		1,374	(1,374)	F	1,186
				648	G	
Capital in excess of par value	546,057		700,756	(700,756)	F	4,467,160
				3,600,965	G	
				320,138	G	
Retained earnings (deficit)	111,594		345,937	(345,937)	\mathbf{F}	(171,306)

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			(282,900)	D	
Accumulated other comprehensive income	532	3,070	(3,070)	\mathbf{F}	532
Treasury stock, at cost	(464)	(332,607)	332,607	F	(464)
Total stockholders equity	\$ 658,257	\$ 718,530	\$ 2,920,321		\$ 4,297,108
Total liabilities and stockholders equity	\$ 871,507	\$ 1,448,252	\$ 5,673,872		\$ 7,993,631

Unaudited Pro Forma Condensed Combined Statement of Operations

Year Ended September 30, 2006

(In thousands, except per share data)

	Pi C	Hologic Cytyc Pro Forma Combined Combined September 30, 2006 December 31, 2006		Pro Forma		Pro Forma	
Revenue	Septer \$	524,340	Decen \$	nber 31, 2006 660,233	Adjustments \$		Combined(L) \$ 1,184,573
Costs and expenses:	Ψ	324,340	Ψ	000,233	Ψ		Ψ 1,104,575
Cost of revenue		284,322		149,692	(7,584)	C	428,965
				- 17,07	1,700	В	1_0,, 00
					835	Н	
Cost of revenue amortization of intangible assets		11,577			81,073	D	92,650
Research and development		39,917		51,037	(10,896)	C	82,007
·		·		·	1,949	Н	, i
Selling and marketing		76,789		189,614	6,125	Н	272,528
General and administrative		55,630		71,583	5,011	Н	132,224
Restructuring				2,885			2,885
Acquired in-process research and development		4,800					4,800
Amortization of acquired intangible assets		5,988			30,947	D	36,935
Net gain on sale of intellectual property		(5,093)					(5,093)
		473,930		464,811	109,160		1,047,901
Income from operations		50,410		195,422	(109,160)		136,672
Interest income		1,999		6,105	(5,600)	A	2,504
Interest and other income (expense), net		(4,008)		(8,556)	(168,570)	A	(162,038)
` * /		, , ,		, i	19,096	K	Ì
Income (loss) before provision for income taxes		48,401		192,971	(264,234)		(22,862)
Provision (benefit) for income taxes		19,360		68,552	(97,057)	I	(9,145)
Trovision (cenerity) for mediae taxes		17,500		00,552	(51,031)	•	(5,115)
Net income (loss)	\$	29,041	\$	124,419	\$ (167,177)		\$ (13,717)
Net income (loss) per common and common equivalent share:							
Basic	\$	0.56	\$	1.09			\$ (0.12)
Diluted	\$	0.54	\$	1.04			\$ (0.12)
Weighted average number of common shares outstanding:							
Basic		51,902		114,009	(49,245)	J	116,666
Diluted		54,010		123,759	(61,103)	J	116,666

Unaudited Pro Forma Condensed Combined Statement of Operations

Six Months Ended March 31, 2007

(In thousands, except per share data)

	As	Hologic Reported ch 31, 2007	Cytyc orma Combined orch 31, 2007	Pro Forma Adjustments		Pro Forma Combined
Revenue	\$	344,299	\$ 357,492	\$		\$ 701,791
Costs and expenses:						
Cost of revenue		180,715	86,190	(10,492)	C	257,686
				423	H	
				850	В	
Cost of revenue amortization of intangible assets		5,680		40,532	D	46,212
Research and development		21,807	23,184	(365)	C	45,614
-				988	H	
Selling and marketing		40,593	96,254	3,105	H	139,952
General and administrative		31,420	50,564	2,540	Н	84,524
Restructuring			2,885			2,885
Acquired in process research and development			,			,
Amortization of acquired intangible assets		2,762		17,153	D	19,915
1		282,977	259,077	54,734		596,788
Income from operations		61,322	98,415	(54,734)		105,003
Interest income		777	4,602	(3,790)	A	1,589
Interest and other income (expense), net		(1,879)	2,780	(84,285)	A	(73,706)
		(=,0.12)	_,,	9,678	K	(12,133)
Income before provision for income taxes		60,220	105,797	(133,131)		32,886
Provision for income taxes		22,500	39,314	(48,660)	I	13,154
Net income	\$	37,720	\$ 66,483	\$ (84,471)		\$ 19,732
Net income per common and common equivalent share: Basic	\$	0.71	\$ 0.58	, , ,		\$ 0.17
Diluted	\$	0.69	\$ 0.54			\$ 0.17
Weighted average number of common shares outstanding:						
Basic		52,963	114,097	(49,333)	J	117,727
Diluted		54,578	123,813	(59,049)	J	119,342

Notes to Unaudited Pro Forma Condensed Combined Financial Statements

(In thousands, except per share information)

1. Basis of Presentation

The following unaudited pro forma condensed combined financial statements of Hologic have been prepared to give effect to the proposed merger of Hologic and Cytyc. The unaudited pro forma condensed combined balance sheet as of March 31, 2007, and the unaudited pro forma condensed combined statements of operations for the six months ended March 31, 2007 and the year ended September 30, 2006, are presented herein to reflect the proposed merger. The unaudited pro forma condensed combined balance sheet combines the unaudited condensed balance sheets of Hologic and Cytyc as of March 31, 2007 and gives effect to the merger as if it had been completed on that date. The unaudited pro forma condensed combined statements of operations for the six months ended March 31, 2007 combines the historical results of Hologic and the unaudited pro forma combined results of Cytyc and gives effect to the merger as if it had occurred on September 25, 2005. The unaudited proforma condensed combined statement of operations for the year ended September 30, 2006 combines the unaudited pro forma combined results of Hologic for the year ended September 30, 2006 and the unaudited pro forma combined results of Cytyc for the year ended December 31, 2006 and gives effect to the merger as if it occurred on September 25, 2005. Hologic s unaudited pro forma condensed combined statement of operations for the year ended September 30, 2006 gives effect to Hologic s July 2006 acquisitions of R2 Technology, Inc. and Suros Surgical Systems, Inc. as if they had occurred on September 25, 2005. Cytyc s unaudited pro forma condensed combined statement of operations for the year ended September 30, 2006 and the six months ended March 31, 2007 gives effect to Cytyc s April 2007 acquisition of the Adeza Biomedical Corporation as if it had occurred on January 1, 2006. Hologic and Cytyc have different fiscal year end dates. However, as the difference is less than 93 days, Cytyc s results for the year ended December 31, 2006 have been used to prepare the unaudited pro forma condensed combined statement of operations for the year ended September 30, 2006, as permitted under Rule 11-02 of Regulation S-X. As a result, Cytyc s results of operations for the three months ended December 31, 2006 are included in the unaudited pro forma condensed combined statements of operations for both the year ended December 31, 2006 and the six months ended March 31, 2007.

The unaudited pro forma condensed combined financial information was prepared using the purchase method of accounting. As discussed under Accounting Treatment—beginning on page 104, based upon the terms of the merger, including the premium paid by Hologic of approximately 33% for Cytyc—s common stock and the cash portion of the merger consideration of \$16.50 per share or approximately 36% of the merger consideration, and other factors, such as the composition of the combined company—s board of directors and senior management, Hologic is treated as the acquiror of Cytyc. Accordingly, we have adjusted the historical consolidated financial information to give effect to the impact of the consideration issued in connection with the merger. In the unaudited pro forma condensed combined balance sheet, Hologic—s cost to acquire Cytyc has been allocated to the assets acquired and liabilities assumed based upon management—s preliminary estimate of their respective fair values as of the date of the merger. Any differences between fair value of the consideration issued and the fair value of the assets and liabilities acquired will be recorded as goodwill. The amounts allocated to acquired assets and liabilities in the unaudited pro forma condensed combined financial statements are based on management—s preliminary internal valuation estimates. Definitive allocations will be performed and finalized based on certain valuations and other studies that will be performed by Hologic with the services of outside valuation specialists after the closing of the merger. Accordingly, the purchase price allocation adjustments and related amortization reflected in the foregoing unaudited pro forma condensed combined financial statements are preliminary, have been made solely for the purpose of preparing these statements and are subject to revision based on a final determination of fair value after the closing of the merger. For example, if the value of the definite-lived intangible assets increased by 10%, annual pro forma income from co