

HARVARD BIOSCIENCE INC  
Form S-4/A  
September 17, 2002

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As filed with the Securities and Exchange Commission on September 17, 2002 Registration No. 333-98927

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**SECURITIES AND EXCHANGE COMMISSION**

WASHINGTON, D.C. 20549

AMENDMENT NO. 1 TO

**FORM S-4**

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

**HARVARD BIOSCIENCE, INC.**

(Exact Name of Registrant as Specified in Its Charter)

**Delaware**  
(State or Other Jurisdiction of  
Incorporation or Organization)

**3826**  
(Primary Standard Industrial  
Classification Code Number)  
**84 October Hill Road**  
**Holliston, Massachusetts 01746**  
**(508) 893-8999**

**04-3306140**  
(I.R.S. Employer Identification Number)

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

**Chane Graziano**  
**Chief Executive Officer**  
**Harvard Bioscience, Inc.**  
**84 October Hill Road**  
**Holliston, Massachusetts 01746**  
**(508) 893-8999**

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

**Copies to:**

**H. David Henken, P.C.**  
**Goodwin Procter LLP**  
**Exchange Place**  
**Boston, Massachusetts 02109**  
**(617) 570-1000**

**Peter Sugar, Esq.**  
**Joel Alam, Esq.**  
**Jaffe, Raitt, Heuer & Weiss, P.C.**  
**One Woodward Avenue, Suite 2400**  
**Detroit, Michigan 48226**  
**(313) 961-8380**

**Approximate date of commencement of proposed sale of the securities to the public:** As soon as possible after the effective date of this registration statement and the consummation of the merger described in 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 number for the same offering.

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

**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 or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.**

**GENOMIC SOLUTIONS INC.  
4355 Varsity Drive, Suite E  
Ann Arbor, Michigan 48108**

Dear Stockholders:

The Board of Directors of Genomic Solutions Inc. has adopted and approved an agreement and plan of merger, dated as of July 17, 2002, which provides for the merger of Genomic Solutions with and into HAG Acq. Corp., a wholly-owned subsidiary of Harvard Bioscience, Inc. If the merger is completed, each outstanding share of Genomic Solutions common stock will be converted into the right to receive a combination of Harvard Bioscience common stock and cash. The aggregate purchase price for all of the outstanding shares of Genomic Solutions common stock is fixed at 3,200,000 shares of Harvard Bioscience common stock and \$9,000,000 in cash, subject to adjustment in limited circumstances. The per share conversion ratio for Genomic Solutions common stock and the per share cash consideration will be determined based on the number of shares of Genomic Solutions common stock outstanding at the completion of the merger. Based on the number of outstanding shares of Genomic Solutions common stock on September 16, 2002, the most recent practicable date prior to the date of this proxy statement and prospectus, and assuming that all in-the-money options to purchase Genomic Solutions common stock as of September 16, 2002 are exercised prior to the merger, each share of Genomic Solutions common stock would be exchanged for approximately 0.1016 of a share of Harvard Bioscience common stock and \$0.2858 in cash. These per share amounts are estimates, however, and may change at the completion of the merger as a result of, among other things, an increase in the number of Genomic Solutions shares of common stock outstanding on the date the merger is completed. You will also receive cash, without interest, rather than a fractional share of Harvard Bioscience common stock that you otherwise would be entitled to receive in the merger.

Harvard Bioscience common stock is traded on the Nasdaq National Market under the trading symbol "HBIO," and on September 16, 2002, the closing price of Harvard Bioscience common stock was \$4.87 per share.

Stockholders of Genomic Solutions will be asked at a special meeting to adopt and approve the merger agreement and approve the merger. The special meeting for Genomic Solutions stockholders will be held on October 24, 2002, at 9:00 a.m., local time, at The Crowne Plaza Hotel, 610 Hilton Boulevard, Ann Arbor, Michigan 48108.

This proxy statement and prospectus provides you with detailed information concerning the merger agreement, the merger, Genomic Solutions and Harvard Bioscience. **You are encouraged to read and consider carefully this proxy statement and prospectus in its entirety. In particular, you should carefully consider the discussion in the section entitled "Risk Factors" beginning on page 21 of this proxy statement and prospectus.** You may also obtain more information about Harvard Bioscience and Genomic Solutions from documents that each of us has filed with the Securities and Exchange Commission.

The Genomic Solutions board of directors has carefully considered the terms and conditions of the merger and has unanimously determined that the merger is advisable, in the best interests of Genomic Solutions' stockholders and on terms that are fair to Genomic Solutions' stockholders. Accordingly, the board of directors has unanimously approved the merger agreement and the merger and recommends that you vote for adoption and approval of the merger agreement and approval of the merger.

Sincerely,

Jeffrey S. Williams  
*President and Chief Executive  
Officer*

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the merger or the shares of Harvard Bioscience common stock to be issued in the merger, or determined if the proxy statement and prospectus is accurate or adequate. Any representation to the contrary is unlawful.

The proxy statement and prospectus is dated September 17, 2002 and was first mailed to Genomic Solutions stockholders on or about September 20, 2002.

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**GENOMIC SOLUTIONS INC.**  
4355 Varsity Drive, Suite E  
Ann Arbor, Michigan 48108

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**NOTICE OF SPECIAL MEETING OF STOCKHOLDERS**  
**to be held on October 24, 2002**

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To the Stockholders of Genomic Solutions Inc.:

A special meeting of stockholders of Genomic Solutions Inc. will be held on October 24, 2002, at 9:00 a.m., local time, at The Crowne Plaza Hotel, 610 Hilton Boulevard, Ann Arbor, Michigan 48108, for the following purposes:

1. To consider and vote on a proposal to adopt and approve the Agreement and Plan of Merger, dated as of July 17, 2002, by and among Harvard Bioscience, Inc., a Delaware corporation, HAG Acq. Corp., a Delaware corporation and a wholly-owned subsidiary of Harvard Bioscience, and Genomic Solutions Inc., a Delaware corporation, a copy of which is attached as Annex A to the accompanying proxy statement and prospectus, and to approve the merger contemplated by the merger agreement.
2. To transact any other business that may properly come before the special meeting and any adjournment or postponement of the special meeting.

Only stockholders of record of Genomic Solutions common stock at the close of business on September 19, 2002 are entitled to notice of, and will be entitled to vote at, the special meeting or any adjournment or postponement thereof. Adoption and approval of the merger agreement and approval of the merger will require the affirmative vote of the holders of Genomic Solutions common stock representing a majority of the outstanding shares of Genomic Solutions common stock entitled to vote at the special meeting.

**Your vote is important. To assure that your shares are represented at the special meeting, you are urged to complete, date and sign the enclosed proxy card and mail it promptly in the postage-paid envelope provided, whether or not you plan to attend the special meeting in person. You may revoke your proxy in the manner described in the accompanying proxy statement and prospectus at any time before it has been voted at the special meeting. If you attend the special meeting you may vote in person even if you returned a proxy.**

Genomic Solutions stockholders have the right to dissent from the merger and obtain payment in cash of the fair value of their shares of common stock under applicable provisions of Delaware law. In order to perfect appraisal rights, stockholders must give written demand for appraisal of their shares before the taking of the vote on the merger agreement and the merger at the special meeting and must not vote in favor

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of the merger agreement and the merger. A copy of the applicable Delaware statutory provisions is included as Annex C to the accompanying proxy statement and prospectus, and a summary of these provisions can be found under "The Merger and Related Transactions Dissenters' Rights of Appraisal" beginning on page 87 of the accompanying proxy statement and prospectus.

BY ORDER OF THE BOARD OF  
DIRECTORS

Jeffrey S. Williams  
*President and Chief Executive  
Officer*

Ann Arbor, Michigan  
September 20, 2002

**Please do not send your stock certificates at this time. If the merger is completed, you will be sent instructions regarding the surrender of your stock certificates.**

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### ADDITIONAL INFORMATION

This proxy statement and prospectus incorporates important business and financial information about Harvard Bioscience and Genomic Solutions from other documents that are not included in or delivered with this proxy statement and prospectus. This information is available to you without charge upon your written or oral request. You can obtain those documents, which are incorporated by reference in this proxy statement and prospectus, by requesting them in writing or by telephone from the appropriate company at the following addresses and telephone numbers:

Harvard Bioscience, Inc.  
84 October Hill Road  
Holliston, Massachusetts 01746  
(508) 893-8999

Attn: Susan M. Luscinski, Chief Financial Officer

Genomic Solutions Inc.  
4355 Varsity Drive, Suite E  
Ann Arbor, Michigan 48108  
(734) 975-4800

Attn: Gary A. Kendra, Secretary

**If you would like to request documents, you must do so by October 17, 2002 in order to receive them before the special meeting.**

For additional information regarding where you can find information about Harvard Bioscience and Genomic Solutions, please see the section entitled "Where You Can Find Additional Information" beginning on page 140 of this proxy statement and prospectus.

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Williams

**QUESTIONS AND ANSWERS ABOUT THE MERGER**

**Q: Why are Harvard Bioscience and Genomic Solutions proposing to merge? (See pages 56 and 67)**

**A:** Harvard Bioscience and Genomic Solutions are proposing the merger because they believe the resulting combined organization will be a stronger, more competitive company capable of achieving greater financial strength, operational efficiencies and growth potential than either company could separately achieve. Harvard Bioscience and Genomic Solutions further believe that the merger will provide the opportunity for each company's stockholders to participate in the potential growth of the combined organization following the merger.

Harvard Bioscience and Genomic Solutions believe that the merger will result in a number of benefits, including:

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the synergies that could be created in leveraging the sales and marketing functions of Harvard Bioscience and Genomic Solutions;

the synergies that could be created in leveraging the distribution channels of Harvard Bioscience and Genomic Solutions;  
and

the synergies that could be created in leveraging the research and development strengths of Harvard Bioscience and Genomic Solutions.

**Q:**

**What will I receive in the merger? (See page 67)**

**A:**

If the merger is completed, each Genomic Solutions stockholder will have the right to receive a combination of Harvard Bioscience common stock and cash in exchange for each of his or her shares of Genomic Solutions common stock. The aggregate purchase price for all of the outstanding shares of Genomic Solutions common stock is fixed at 3,200,000 shares of Harvard Bioscience common stock and \$9,000,000 in cash, subject to adjustment in limited circumstances for extraordinary stock events and to preserve the intended tax free nature of the transaction. The per share conversion ratio for Genomic Solutions common stock and the per share cash consideration will be determined based on the number of shares of Genomic Solutions common stock outstanding at the completion of the merger. The manner in which this conversion ratio will be calculated and the amount of cash you will receive as part of the merger consideration is described in this proxy statement and prospectus. Based on the number of outstanding shares of Genomic Solutions common stock on September 16, 2002, the most recent practicable date prior to the date of this proxy statement and prospectus, and assuming that all in-the-money options to purchase Genomic Solutions common stock as of September 16, 2002 are exercised prior to the merger, each share of Genomic Solutions common stock would be exchanged for approximately 0.1016 of a share of Harvard Bioscience common stock and \$0.2858 in cash. These per share amounts are estimates, however, and may change at the completion of the merger as a result of, among other things, an increase in the number of Genomic Solutions shares of common stock outstanding on the date the merger is completed. You will also receive cash, without interest, rather than a fractional share of Harvard Bioscience common stock that you otherwise would be entitled to receive in the merger.

**Q:**

**Will Genomic Solutions stockholders be able to trade the Harvard Bioscience common stock that they receive in the merger? (See pages 86 and 87)**

**A:**

Yes. The Harvard Bioscience common stock issued in the merger will be registered with the Securities and Exchange Commission and listed on the Nasdaq National Market under the symbol "HBIO." All shares of Harvard Bioscience common stock that you receive in connection with the merger will be freely transferable unless you are deemed to be an affiliate of Genomic

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Solutions prior to the completion of the merger or an affiliate of Harvard Bioscience after the completion of the merger under the Securities Act of 1933, as amended, or your shares are subject to other contractual restrictions. Shares of Harvard Bioscience common stock received by persons deemed to be affiliates in the merger may only be sold in compliance with Rule 145 under the Securities Act or as otherwise permitted under the Securities Act.

**Q:**

**When do Harvard Bioscience and Genomic Solutions expect to complete the merger?**

**A:**

Harvard Bioscience and Genomic Solutions expect to complete the merger when all of the conditions to completion of the merger contained in the merger agreement have been satisfied or waived. Harvard Bioscience and Genomic Solutions are working toward satisfying these conditions and completing the merger as quickly as possible. Harvard Bioscience and Genomic Solutions currently plan to complete the merger in the fourth quarter of 2002 following the special meeting of Genomic Solutions stockholders, assuming the Genomic Solutions stockholders adopt and approve the merger agreement and approve the merger and the other merger conditions are satisfied. However, because the merger is subject to some conditions which are beyond Harvard Bioscience's and Genomic



Solutions' control, the exact timing cannot be predicted.

**Q:**

**What happens if the merger is not completed? (See page 82)**

**A:**

If the merger is not completed, each of Genomic Solutions and Harvard Bioscience will continue as independent companies. In addition, under the terms of the merger agreement, Genomic Solutions may be required to pay Harvard Bioscience a termination fee of \$1,300,000 or to reimburse Harvard Bioscience for out-of-pocket expenses, including legal, accounting, printing and other fees, related to this transaction if the merger is not completed for specified reasons discussed in more detail in this proxy statement and prospectus.

**Q:**

**What vote is required to approve the merger? (See page 46)**

**A:**

Adoption and approval of the merger agreement and approval of the merger requires the affirmative vote of the holders of a majority of the outstanding shares of Genomic Solutions common stock as of the record date. Each of the boards of directors of Harvard Bioscience and Genomic Solutions has already approved the merger.

**Q:**

**Are Harvard Bioscience stockholders voting on the merger?**

**A:**

No. Only Genomic Solutions stockholders are voting on the merger.

**Q:**

**How do I vote on the merger? (See page 48)**

**A:**

First, please review the information contained or incorporated by reference in this proxy statement and prospectus, including the annexes, as it contains important information about Genomic Solutions and Harvard Bioscience. It also contains important information about what each of the boards of directors of Genomic Solutions and Harvard Bioscience, respectively, considered in evaluating the merger. Next, complete and sign the enclosed proxy card, and then mail it in the enclosed return envelope as soon as possible so that your shares can be voted at the special meeting of Genomic Solutions' stockholders at which the merger agreement and the merger will be presented and voted upon. You may also attend the special meeting in person and vote at the special meeting instead of submitting a proxy.

**Q:**

**What happens if I don't indicate how to vote my proxy? (See page 48)**

**A:**

If you sign and send in your proxy, but do not include instructions on how to vote your properly signed proxy card, your shares will be voted FOR adoption and approval of the merger agreement and approval of the merger.

**Q:**

**What happens if I don't return a proxy card? (See page 47)**

**A:**

Not returning your proxy card will have the same effect as voting against adoption and approval of the merger agreement and against approval of the merger.

**Q:**

**Can I change my vote after I have mailed my signed proxy card? (See page 48)**

**A:**

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Yes. You can change your vote at any time before your proxy is voted at the special meeting of Genomic Solutions' stockholders at which the merger agreement and merger will be presented and voted upon. You can do this in one of three ways:

first, you can send a written notice to the Secretary of Genomic Solutions stating that you would like to revoke your proxy;

second, you can complete and submit a later-dated proxy card; or

third, you can attend the special meeting and vote in person. Your attendance at the special meeting alone will not revoke your proxy. You must also vote at the special meeting in order to revoke your previously submitted proxy.

You should send any notice of revocation or your completed new proxy card, as the case may be, to Genomic Solutions at the following address:

Genomic Solutions Inc.  
4355 Varsity Drive, Suite E  
Ann Arbor, MI 48108  
Attn: Gary A. Kendra, Secretary

**Q:**

**Can I submit my proxy by telephone or over the Internet?**

**A:**

If you hold your shares through a bank or brokerage firm, you may be able to submit your proxy by telephone or over the Internet. You should refer to the proxy card included with your materials for instructions about how to vote. If you vote by telephone or over the Internet, you do not need to complete and mail your proxy card. If you hold shares directly, then you may not vote by telephone or over the Internet.

**Q:**

**If my broker holds my shares in "street name," will my broker vote my shares for me? (See page 48)**

**A:**

No. Your broker will not be able to vote your shares without instructions from you. If you do not provide your broker with voting instructions, your shares may be considered present at the special meeting for purposes of determining a quorum, but will not be considered to have been voted in favor of adoption and approval of the merger agreement or approval of the merger and therefore will have the effect of a vote against the merger agreement and against the approval of the merger. If you have instructed a broker to vote your shares and wish to change your vote, you must follow directions received from your broker to change those instructions.

**Q:**

**Should I send my stock certificates now? (See page 69)**

**A:**

No. If the merger is completed, Harvard Bioscience will send you written instructions for exchanging your Genomic Solutions stock certificates for Harvard Bioscience stock certificates and cash. In the meantime, you should retain your certificates as the Genomic Solutions stock certificates are still valid. Please do not send in your stock certificates with your proxy. If you send your stock certificates to either Harvard Bioscience or Genomic Solutions, neither Harvard Bioscience nor Genomic Solutions will assume the risk of loss.

**Q:**

**Am I entitled to appraisal rights? (See pages 48 and 87)**

**A:**

Holders of Genomic Solutions common stock are entitled to appraisal rights under Section 262 of the Delaware General Corporation Law.

**Q:**

**Are there risks I should consider in deciding whether to vote for the merger?**

A: Yes. In the section entitled "Risk Factors" beginning on page 21 of this proxy statement and prospectus, Genomic Solutions and Harvard Bioscience have described a number of risk factors that you

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should consider in connection with the merger.

**Q: What are the tax consequences to me of the merger? (See page 84)**

A: In general, you will recognize capital gain, but not any loss, on the exchange of your Genomic Solutions common stock for Harvard Bioscience common stock and cash to the extent of the lesser of the cash received and the gain realized in the exchange. **This tax treatment may not apply to all Genomic Solutions stockholders. You should consult with your own tax advisor for a full understanding of the merger's tax consequences that are specific to you.**

**Q: Who can help answer my questions about the merger?**

A: You may call Gary A. Kendra, the Secretary of Genomic Solutions, at (734) 975-4800, with any questions you may have about the merger.

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## SUMMARY

The following is a summary of the information contained in this proxy statement and prospectus. This summary may not contain all of the information that is important to you. You should carefully read this entire proxy statement and prospectus and the other documents referred to for a more complete understanding of the merger and related transactions. In particular, you should read the annexes attached to this proxy statement and prospectus, including the merger agreement and the form of voting agreement, which are attached to this proxy statement and prospectus as Annexes A and D, respectively. In addition, Harvard Bioscience incorporates by reference into this proxy statement and prospectus important business and financial information. You may obtain the information incorporated by reference into this proxy statement and prospectus without charge by following the instructions in the section entitled "Where You Can Find Additional Information" beginning on page 140 of this proxy statement and prospectus.

### Parties to the Merger

HARVARD BIOSCIENCE, INC.  
84 October Hill Road  
Holliston, Massachusetts 01746  
[www.harvardbioscience.com](http://www.harvardbioscience.com)

Harvard Bioscience is a global provider of innovative, research enabling tools that solve problems in drug discovery. Harvard Bioscience provides a broad array of tools designed to accelerate the speed and to reduce the cost at which its customers can introduce new drugs. Harvard Bioscience focuses on alleviating bottlenecks in the drug discovery process including target validation, assay development and ADMET (absorption, distribution, metabolism, elimination and toxicology) screening.

To address these critical bottlenecks, Harvard Bioscience has several innovative proprietary tools. For target validation, these tools include novel pipette tips, micro-dialyzers, plate readers and COPAS high throughput/high relevance model organism screening systems. For ADMET screening, these tools include NaviCyte diffusion chambers for drug absorption testing, 96 well equilibrium dialysis plates for drug distribution testing, and COPAS high throughput/high relevance model organism toxicology testing systems. Harvard Bioscience also has an established product base in target validation and ADMET screening. For target validation, this product base consists of DNA/RNA/protein calculators, life science spectrophotometers and amino acid analysis systems. For ADMET screening, this product base includes precision infusion pumps, organ

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testing systems, ventilators, cell biology and electrophysiology products.

A key element of Harvard Bioscience's strategy to become the leading provider of innovative, enabling technologies and products for target validation and screening research in the drug discovery process is to acquire businesses that it believes will either strengthen its core business or provide major breakthroughs for drug discovery research.

The company was organized as a Massachusetts corporation in 1996 in connection with the purchase by the current management team of a portion of the assets of Harvard Apparatus, Inc., a business which, with its predecessors, had been in existence since 1901. Harvard Bioscience was reincorporated in Delaware in November 2000.

HAG Acq. Corp. is a newly formed Delaware corporation and a wholly-owned subsidiary of Harvard Bioscience. HAG Acq. Corp. was formed solely to effect the merger and has not conducted any business during any period of its existence.

GENOMIC SOLUTIONS INC.  
4355 Varsity Drive, Suite E  
Ann Arbor, Michigan 48108  
www.genomicsolutions.com

Genomic Solutions develops, manufactures and sells instruments, consumables and software for the life sciences research and drug discovery markets. Its market focus is based on three key areas: genomics, proteomics and microscale liquid handling. These areas comprise three of the major technologies used by researchers in studying disease and developing new drugs.

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Genomic Solutions' products allow researchers to perform high volume experiments, and analyze the resultant data, at lower costs and in less time than with traditional techniques. Genomic Solutions' products are distributed and sold to pharmaceutical and biotechnology companies, government agencies, academic institutions and private research organizations throughout the world.

Genomic Solutions' predecessor, B.I. Systems Corporation, was established in 1994 to acquire a gel electrophoresis imaging and analysis product line from Millipore Corporation used to document and analyze one-dimensional separation of DNA and proteins. In 1997, a new management team redirected the company's efforts to the growing genomic and proteomic markets. In December 1997, the company changed its name to Genomic Solutions Inc.

### **Voting Requirements for the Merger (See page 46)**

In order to complete the merger, the holders of a majority of the outstanding shares of Genomic Solutions common stock as of the record date must vote to adopt and approve the merger agreement and approve the merger. Each share of Genomic Solutions common stock will be entitled to one vote per share. As a result, you will be entitled to cast one vote per share of Genomic Solutions common stock you owned as of September 19, 2002, the record date for the Genomic Solutions special meeting at which the merger agreement and the merger will be presented and voted upon.

Harvard Bioscience stockholders are not required to vote on the merger agreement or the merger.

### **Share Ownership of Management (See page 46)**

As of the close of business on September 16, 2002, the most recent practicable date prior to the date of this proxy statement and prospectus, directors and officers of Genomic Solutions (and their respective affiliates) collectively owned approximately 38% of the outstanding shares of Genomic Solutions common stock entitled to vote at the special meeting on the merger agreement and the merger. All of the directors and certain of their affiliates and certain executive officers, who as of September 16, 2002 collectively owned approximately 38% of the outstanding shares of Genomic Solutions common stock entitled to vote at the special meeting, have entered into voting agreements with Harvard Bioscience under which they have agreed, among other things, to vote their shares of Genomic Solutions common stock in favor of adoption and approval of the merger agreement and approval of the merger.

### **Genomic Solutions' Reasons for the Merger (See page 56)**

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Genomic Solutions' board of directors consulted with senior management and Genomic Solutions' financial and legal advisors and considered a number of factors, including those set forth below, in reaching its decision to approve the merger agreement and the transactions contemplated by the merger agreement, and to recommend that Genomic Solutions stockholders vote FOR adoption and approval of the merger agreement and approval of the merger.

the relative value of the consideration to be received by Genomic Solutions stockholders compared to the historical and recent market prices of Genomic Solutions common stock;

the fairness opinion of Genomic Solutions' financial advisor, U.S. Bancorp Piper Jaffray;

Genomic Solutions' prospects of remaining independent;

the possible effect of the merger on its employees, customers and current facilities;

the ability of Genomic Solutions to respond to a superior acquisition proposal from a third party, in some circumstances, subject to the possible payment of a termination fee;

the limited nature of the closing conditions included in the merger agreement; and

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the relative liquidity of Harvard Bioscience common stock compared to Genomic Solutions common stock.

The foregoing discussion of the information and factors considered by Genomic Solutions' board of directors, while not exhaustive, includes the material factors considered by the Genomic Solutions board of directors. In view of the variety of factors considered in connection with its evaluation of the merger, Genomic Solutions' board of directors did not find it practicable to, and did not, quantify or otherwise assign relative or specific weight or values to any of these factors, and individual directors may have given different weights to different factors.

### **Recommendation of Genomic Solutions' Board of Directors (See page 58)**

After careful consideration, Genomic Solutions' board of directors unanimously determined that the merger is advisable, in the best interests of Genomic Solutions stockholders and on terms that are fair to the stockholders of Genomic Solutions. **Accordingly, Genomic Solutions' board of directors unanimously approved the merger agreement and the merger and recommends that you vote FOR adoption and approval of the merger agreement and approval of the merger.**

### **Opinion of Genomic Solutions' Financial Advisor (See page 58)**

In deciding to approve the merger, the Genomic Solutions board of directors considered an opinion from its financial advisor, U.S. Bancorp Piper Jaffray Inc. On July 16, 2002, Piper Jaffray delivered its written opinion to the board of directors of Genomic Solutions that, as of the date of such opinion, the merger consideration set forth in the merger agreement was fair, from a financial point of view, to the holders of Genomic Solutions common stock.

The full text of the Piper Jaffray written opinion is attached to this proxy statement and prospectus as Annex B. We encourage you to read the opinion carefully as well as the section of this proxy statement and prospectus entitled "Consideration of the Merger by Genomic Solutions' Board of Directors Opinion of Genomic Solutions' Financial Advisor." The opinion of Piper Jaffray does not constitute a recommendation as to how any holder of Genomic Solutions common stock should vote with respect to the merger agreement and the merger.

### **Interests of Genomic Solutions' Directors and Executive Officers in the Merger (See page 64)**

Some of Genomic Solutions' directors and officers have interests in the merger that are different from, or in addition to, those of Genomic Solutions stockholders generally. For instance, the merger agreement provides certain directors and officers of Genomic Solutions with

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continuing indemnification rights and change in control payments. Genomic Solutions' board of directors was aware of these interests and considered them, among other matters, when it approved the merger agreement and the merger.

### **Voting Agreements of Directors and Certain Executive Officers (See page 90)**

Directors and certain of their affiliates and certain executive officers of Genomic Solutions who held an aggregate of approximately 38% of Genomic Solution's total outstanding shares of common stock on July 17, 2002 have agreed to vote their shares in favor of the merger agreement and the merger.

### **Structure and Effects of the Merger (See page 67)**

At the completion of the merger, Genomic Solutions will merge with and into HAG Acq. Corp. and HAG Acq. Corp. will survive as a wholly-owned subsidiary of Harvard Bioscience.

As a result of the merger, each outstanding share of Genomic Solutions common stock will be converted into the right to receive a combination of Harvard Bioscience common stock and cash. The aggregate purchase price for all of the outstanding shares of Genomic Solutions common stock is fixed at 3,200,000 shares of Harvard Bioscience common stock and \$9,000,000 in cash, subject to adjustment in limited circumstances for extraordinary stock events and to preserve the intended tax free nature of the transaction. The per share conversion ratio for Genomic Solutions common

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stock and the per share cash consideration will be determined based on the number of shares of Genomic Solutions common stock outstanding at the completion of the merger. The manner in which this conversion ratio will be calculated and the amount of cash you will receive as part of the merger consideration is described in this proxy statement and prospectus. Based on the number of outstanding shares of Genomic Solutions common stock on September 16, 2002, the most recent practicable date prior to the date of this proxy statement and prospectus, and assuming that all in-the-money options to purchase Genomic Solutions common stock as of September 16, 2002 are exercised prior to the merger, each share of Genomic Solutions common stock would be exchanged for approximately 0.1016 of a share of Harvard Bioscience common stock and \$0.2858 in cash. These per share amounts are estimates, however, and may change at the completion of the merger as a result of, among other things, an increase in the number of Genomic Solutions shares of common stock outstanding on the date the merger is completed. You will also receive cash, without interest, rather than a fractional share of Harvard Bioscience common stock that you otherwise would be entitled to receive in the merger.

At the completion of the merger, holders of Genomic Solutions common stock will hold shares of Harvard Bioscience common stock. As a result, the rights of these holders following the merger will be governed by Harvard Bioscience's certificate of incorporation and bylaws, rather than Genomic Solutions' certificate of incorporation and bylaws.

### **Completion and Effectiveness of the Merger (See page 67)**

Harvard Bioscience and Genomic Solutions expect to complete the merger when all of the conditions to completion of the merger contained in the merger agreement have been satisfied or waived.

Harvard Bioscience and Genomic Solutions are working toward satisfying these conditions and completing the merger as quickly as possible. Harvard Bioscience and Genomic Solutions currently plan to complete the merger in the fourth quarter of 2002 following the special meeting of Genomic Solutions stockholders, assuming the Genomic Solutions stockholders adopt and approve the merger agreement and approve the merger and the other merger conditions are satisfied. However, because the merger is subject to specified conditions, some of which are beyond Harvard Bioscience's and Genomic Solutions' control, the exact timing cannot be predicted.

Assuming the Genomic Solutions stockholders approve the merger and the merger agreement, and the other conditions to completion of the merger have been satisfied or waived, the merger will become effective upon the filing of a certificate of merger with the State of Delaware. Harvard Bioscience and Genomic Solutions expect to file the certificate of merger shortly following the special meeting of Genomic Solutions stockholders at which the merger agreement and the merger will be presented and voted upon.

### **Genomic Solutions Prohibited from Soliciting Other Offers (See page 75)**

Genomic Solutions has agreed that, while the merger is pending, it will not solicit, initiate or encourage, or, subject to some limited exceptions, engage in discussions with any third parties regarding some types of extraordinary transactions, such as a tender offer, merger, consolidation or similar transaction involving Genomic Solutions.

**Conditions to Completion of the Merger (See page 78)**

Harvard Bioscience's and Genomic Solutions' obligations to complete the merger are subject to specified conditions described under "The Merger Agreement Conditions to Completion of the Merger."

**Termination of the Merger Agreement and Payment of Termination Fee (See pages 80 and 82)**

Harvard Bioscience and Genomic Solutions may terminate the merger agreement by mutual

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agreement and under other specified circumstances.

Genomic Solutions and Harvard Bioscience have agreed that if the merger agreement is terminated under certain circumstances described under "The Merger Agreement Payment of Termination Fees and Expenses," Genomic Solutions will pay Harvard Bioscience a fee of \$1,300,000.

Genomic Solutions and Harvard Bioscience have also agreed that if the merger agreement is terminated under certain circumstances, Genomic Solutions will reimburse Harvard Bioscience for its out-of-pocket expenses.

**Material United States Federal Income Tax Consequences of the Merger (See page 84)**

In general, for federal income tax purposes, you will recognize capital gain, but not any loss, on the exchange of your Genomic Solutions common stock for Harvard Bioscience common stock and cash to the extent of the lesser of the cash received and the gain realized in the exchange.

**This tax treatment may not apply to all Genomic Solutions stockholders. Determining the actual tax consequences of the merger to you can be complicated. You should consult your own tax advisor for a full understanding of the merger's tax consequences that are particular to you.**

Genomic Solutions will not be obligated to complete the merger unless it receives a legal opinion from its tax counsel, dated as of the closing date, as to the tax consequences of the merger. If Genomic Solutions' tax counsel is unwilling or unable to render the tax opinion, Harvard Bioscience's tax counsel may render the tax opinion. This opinion will not bind the Internal Revenue Service, which could take a different view.

**Accounting Treatment of the Merger (See page 86)**

The merger will be accounted for under the purchase method of accounting and Harvard Bioscience will be considered the acquiror of Genomic Solutions for accounting purposes. Accordingly, the historical financial statements of Harvard Bioscience will become the historical financial statements of the combined company following the merger.

**Regulatory Approvals Required to Complete the Merger (See page 86)**

Neither Harvard Bioscience nor Genomic Solutions is aware of any material governmental or regulatory approval required for completion of the merger, other than compliance with applicable corporate law of the State of Delaware and federal and state securities laws.

**Dissenters' Rights of Appraisal (See pages 48 and 87)**

Under Section 262 of the Delaware General Corporation Law, record holders of Genomic Solutions common stock are entitled to dissent from the merger, request a judicial appraisal of the fair value of their shares of Genomic Solutions common stock and, if the merger is consummated and all requirements of Section 262 are satisfied by Genomic Solutions stockholders seeking to exercise appraisal rights, to receive payment equal to the fair value of their shares of Genomic Solutions common stock, as determined in the manner set forth under Section 262. The procedures which must be followed in connection with the exercise of appraisal rights by dissenting stockholders are described in the sections entitled "The Special Meeting of Genomic Solutions Stockholders Dissenters' Rights of Appraisal" and "The Merger and Related Transactions Dissenters' Rights of Appraisal," beginning on page 48 and page 87, respectively, of this proxy statement and prospectus. A copy of Section 262 of the Delaware General Corporation Law is attached as Annex C to this proxy statement and prospectus. Failure to strictly follow the procedures set forth in Section 262 on a timely basis may result in a termination or loss of appraisal rights.

**Restrictions on the Ability to Sell Harvard Bioscience Common Stock Received in the Merger (See page 86)**

All shares of Harvard Bioscience common stock that you receive in connection with the merger will be freely transferable unless you are deemed to be an affiliate of Genomic Solutions prior to the completion of the merger or an affiliate of Harvard Bioscience after the completion of the merger under the Securities Act, or your shares are subject to other contractual restrictions. Shares of Harvard Bioscience common stock received by persons deemed to be affiliates in the merger may only be sold in compliance with Rule 145 under the Securities Act.

**Listing of Harvard Bioscience Common Stock (See page 87)**

The shares of Harvard Bioscience common stock issued in connection with the merger will be listed on the Nasdaq National Market under the symbol "HBIO."

**HARVARD BIOSCIENCE SUMMARY SELECTED CONSOLIDATED FINANCIAL DATA**

The following summary selected consolidated statement of operations data of Harvard Bioscience for each of the three years ended December 31, 2001, 2000 and 1999 and the summary selected consolidated balance sheet data as of December 31, 2001 and 2000 set forth below, are derived from the historical audited consolidated financial statements included in Harvard Bioscience's Annual Report on Form 10-K for the year ended December 31, 2001. The summary selected consolidated statement of operations data for each of the two years ended December 31, 1998 and 1997 and the consolidated balance sheet data as of December 31, 1999, 1998 and 1997 are derived from Harvard Bioscience's historical audited financial statements. Harvard Bioscience derived the summary selected consolidated balance sheet and statement of operations data as of and for the six month periods ended June 30, 2002 and 2001 from its unaudited consolidated financial statements. These unaudited consolidated financial statements include, in the opinion of management, all normal and recurring adjustments that are necessary for a fair statement of results. The operating results for the six months ended June 30, 2002 are not necessarily indicative of the results that may be expected for the year ending December 31, 2002. When you read the following summary historical data, it is important that you read it along with the historical consolidated financial statements and related notes in Harvard Bioscience's Annual Report on Form 10-K for the year ended December 31, 2001 and Harvard Bioscience's quarterly reports on Form 10-Q filed with the Securities and Exchange Commission and incorporated by reference into this proxy statement and prospectus, as well as the section of Harvard Bioscience's Annual Report on Form 10-K entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations."

	Years Ended December 31,					Six Months Ended June 30,	
	1997	1998	1999	2000	2001	2001	2002
	(in thousands, except per share data)					(unaudited)	
<b>Consolidated Statement of Operations Data:</b>							
Revenues	\$ 11,464	\$ 12,154	\$ 26,178	\$ 30,575	\$ 40,868	\$ 18,318	\$ 25,692
Costs and Expenses:							
Cost of product revenues	5,128	5,351	13,547	15,833	20,179	9,223	12,405
General and administrative expenses	2,338	2,317	4,147	5,181	7,001	3,332	4,032
Severance and other related costs					460		
Sales and marketing expense	1,672	1,722	2,449	3,186	4,840	2,042	3,297
Research and development	207	325	1,188	1,533	3,179	1,048	2,024
Stock compensation expense			3,283	14,676	2,679	1,541	655
In-process research and development					5,447	5,447	
Amortization of goodwill and other intangibles		27	368	604	1,744	487	612
Operating income (loss)	2,119	2,412	1,196	(10,438)	(4,661)	(4,802)	2,667



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	Years Ended December 31,					Six Months Ended June 30,	
	1997	1998	1999	2000	2001	2001	2002
<b>Other (expenses) income:</b>							
Foreign currency (loss) gain	(96)	21	(48)	(324)	(99)	(237)	129
Common stock warrant interest expense	(117)	(1,379)	(29,694)	(36,885)			
Interest (expense) income, net	(222)	(210)	(657)	(756)	1,352	951	187
Amortization of deferred financing costs			(63)	(153)			
Other	106	10	(17)	45	(10)	7	(34)
<b>Other income (expense), net</b>	<b>(329)</b>	<b>(1,558)</b>	<b>(30,479)</b>	<b>(38,073)</b>	<b>1,243</b>	<b>721</b>	<b>282</b>
<b>Income (loss) before income taxes</b>	<b>1,790</b>	<b>854</b>	<b>(29,283)</b>	<b>(48,511)</b>	<b>(3,418)</b>	<b>(4,081)</b>	<b>2,949</b>
<b>Income taxes</b>	<b>682</b>	<b>783</b>	<b>137</b>	<b>1,359</b>	<b>1,790</b>	<b>1,012</b>	<b>1,158</b>
<b>Net income (loss)</b>	<b>1,108</b>	<b>71</b>	<b>(29,420)</b>	<b>(49,870)</b>	<b>(5,208)</b>	<b>(5,093)</b>	<b>1,791</b>
<b>Preferred stock dividends</b>	<b>(122)</b>	<b>(122)</b>	<b>(157)</b>	<b>(136)</b>			
<b>Net income (loss) available to common stockholders</b>	<b>\$ 986</b>	<b>\$ (51)</b>	<b>\$ (29,577)</b>	<b>\$ (50,006)</b>	<b>\$ (5,208)</b>	<b>\$ (5,093)</b>	<b>\$ 1,791</b>
<b>Income (loss) per share:</b>							
Basic	\$ 0.13	\$ (0.01)	\$ (5.28)	\$ (6.25)	\$ (0.20)	\$ (0.20)	0.07
Diluted	\$ 0.06	\$ (0.01)	\$ (5.28)	\$ (6.25)	\$ (0.20)	\$ (0.20)	0.07
<b>Weighted average common shares:</b>							
Basic	7,406	5,599	5,599	8,005	25,785	25,377	26,470
Diluted	17,500	5,599	5,599	8,005	25,785	25,377	27,061

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**Goodwill and other intangible assets** Adoption of Statement of Financial Accounting Standards (SFAS) No. 142, "Goodwill and Other Intangible Assets"

The following table presents the net income (loss) data of Harvard Bioscience, as if SFAS No. 142 was adopted for all years presented. On January 1, 2002, Harvard Bioscience adopted SFAS No. 142, and accordingly no longer amortizes goodwill and indefinite lived intangible assets, but rather such assets are subject to annual impairment reviews or more frequently, if events or circumstances indicate that there may be an impairment. During the second quarter of 2002, Harvard Bioscience completed the implementation review as required under SFAS No. 142, and concluded that there was no impairment of goodwill at the time of adoption on January 1, 2002.

	Years Ended December 31,					Six Months Ended June 30,	
	1997	1998	1999	2000	2001	2001	2002
	(in thousands, except per share data)					(unaudited)	
Net income (loss)	\$ 986	\$ (51)	\$ (29,577)	\$ (50,006)	\$ (5,208)	\$ (5,093)	\$ 1,791
Add back: Goodwill amortization, net of tax	0	18	303	459	811	282	0

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	Years Ended December 31,					Six Months Ended June 30,	
	1997	1998	1999	2000	2001	2001	2002
Adjusted net income (loss)	\$ 986	\$ (33)	\$ (29,274)	\$ (49,547)	\$ (4,397)	\$ (4,811)	\$ 1,791
Basic earnings per share							
Net income (loss)	\$ 0.13	\$ (0.01)	\$ (5.28)	\$ (6.25)	\$ (0.20)	\$ (0.20)	\$ 0.07
Add back: Goodwill amortization, net of tax		0.00	0.05	0.06	0.03	0.01	
Adjusted net income (loss)	\$ 0.13	\$ (0.01)	\$ (5.23)	\$ (6.19)	\$ (0.17)	\$ (0.19)	\$ 0.07
Diluted earnings per share							
Net income (loss)	\$ 0.06	\$ (0.01)	\$ (5.28)	\$ (6.25)	\$ (0.20)	\$ (0.20)	\$ 0.07
Add back: Goodwill amortization, net of tax		0.00	0.05	0.06	0.03	0.01	
Adjusted net income (loss)	\$ 0.06	\$ (0.01)	\$ (5.23)	\$ (6.19)	\$ (0.17)	\$ (0.19)	\$ 0.07
	As of December 31,					As of June 30,	
	1997	1998	1999	2000	2001	2001	2002
	(in thousands)					(unaudited)	

**Balance Sheet Data:**

Cash and cash equivalents	\$ 707	\$ 957	\$ 2,396	\$ 35,817	\$ 29,386	\$ 31,182	\$ 27,025
Working capital	1,698	2,206	3,783	40,552	32,597	36,521	36,210
Total assets	6,161	7,220	20,610	58,809	82,362	73,537	83,538
Long-term debt, net of current portion	829	638	5,073	1	637	40	92
Preferred stock	1,621	1,500	2,500				
Common stock warrants		1,500	31,194				
Stockholders' equity (deficit)	737	678	(25,711)	52,335	66,812	65,317	71,481

**Recent Developments**

On July 1, 2002, Harvard Bioscience's Biochrom subsidiary completed the acquisition of all the assets of Walden Precision Apparatus for a purchase price of approximately \$1.4 million in cash and the assumption of specified operating liabilities. The transaction will be accounted for using the purchase method of accounting.

**GENOMIC SOLUTIONS SUMMARY SELECTED CONSOLIDATED FINANCIAL DATA**

The table below presents summary selected historical consolidated financial data of Genomic Solutions. When you read this summary historical financial data, it is important that you read it along with the historical consolidated financial statements and related notes included in this proxy statement and prospectus beginning on page F-1, as well as the section entitled "Genomic Solutions' Management's Discussion and Analysis of Financial Condition and Results of Operations of Genomic Solutions" beginning on page of this proxy statement and prospectus. The summary selected consolidated statement of operations data for each of the three years ended December 31, 2001, 2000 and 1999 and the selected consolidated balance sheet data as of December 31, 2001 and 2000, set forth below, are derived from the historical audited consolidated financial statements included in Genomic Solutions' Form 10-K for the year ended December 31, 2001. The summary selected historical consolidated statement of operations data of Genomic Solutions for the years ended December 31, 1998 and 1997 and the summary selected balance sheet data as of December 31, 1999, 1998 and 1997, set forth below, have been derived from the historical audited consolidated financial statements not included herein. Genomic Solutions derived the summary selected consolidated balance sheet and statement of operations data as of and for the six months ended June 30, 2002 and 2001, set forth below, from its unaudited financial statements. These unaudited financial statements include, in the opinion of management, all normal recurring adjustments that are necessary for a fair statement of results. Operating results for the six months ended June 30, 2002 are not necessarily indicative of the results that may be expected for the entire

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year ending December 31, 2002.

	Years Ended December 31,					Six Months Ended June 30,	
	1997	1998	1999	2000	2001	2001	2002
	(in thousands, except per share data)					(unaudited)	
<b>Consolidated statement of operations data:</b>							
Revenue	\$ 2,164	\$ 5,507	\$ 12,092	\$ 19,077	\$ 16,840	\$ 8,842	\$ 12,716
Costs of revenue(1):	1,063	3,266	6,990	9,374	11,792	4,966	6,657
Gross profit	1,101	2,241	5,102	9,703	5,048	3,876	6,059
<b>Operating expenses:</b>							
Selling, general and administrative	2,198	6,372	8,652	11,919	14,136	6,932	7,311
Research and development	942	3,354	4,830	5,596	6,797	3,620	2,483
Restructuring and other unusual charges(2)	1,578	340	438	600	10,936		
Total operating expenses	4,718	10,066	13,920	18,115	31,869	10,552	9,794
Loss from operations	(3,617)	(7,825)	(8,818)	(8,412)	(26,821)	(6,676)	(3,735)
Total other (expense) income	(261)	39	(2,324)	558	721	830	(228)
Loss before taxes and extraordinary items	(3,878)	(7,786)	(11,142)	(7,854)	(26,100)	(5,846)	(3,963)
(Benefit from) Provision for income taxes	(642)					72	
Loss before extraordinary items	(3,236)	(7,786)	(11,142)	(7,854)	(26,100)	(5,918)	(3,963)
Extraordinary items(3)	1,245			(1,050)			
Net Loss	(1,991)	(7,786)	(11,142)	(8,904)	(26,100)	(5,918)	(3,963)
Non-cash common stock warrant benefit (charge)(4)			(3,861)	1,059			
Deemed dividend upon issuance to and subsequent repurchase of stock from PerkinElmer, Inc.(5)				(8,000)	(2,811)	(2,811)	
Net loss attributable to common stockholders	\$ (1,991)	\$ (7,786)	\$ (15,003)	\$ (15,845)	\$ (28,911)	\$ (8,729)	\$ (3,963)
<b>Net loss per share, basic and diluted:</b>							
Loss per share before extraordinary items	\$ (6.93)	\$ (2.71)	\$ (3.75)	\$ (0.45)	\$ (1.05)	\$ (0.24)	\$ (0.13)
Net loss per share	\$ (4.27)	\$ (2.71)	\$ (3.75)	\$ (0.51)	\$ (1.05)	\$ (0.24)	\$ (0.13)
Net loss per share attributable to common stockholders	\$ (4.27)	\$ (2.71)	\$ (5.04)	\$ (0.90)	\$ (1.17)	\$ (0.35)	\$ (0.13)
Weighted average common shares	467	2,876	2,974	17,526	24,791	24,734	31,176

- (1) In September 2001, Genomic Solutions recorded an inventory impairment charge of approximately \$1,180,000.
- (2) In 2001, Genomic Solutions recorded a restructuring charge of approximately \$2,731,000 to close its Lansing, Michigan engineering and production facility; to reduce its workforce by 25%; to record the impairment of goodwill originating from the acquisition of PBA Technologies, Ltd. and the electrophoresis and gel services business of ESA, Inc.; and to record the impairment of long lived assets and the loss on sale and disposal of assets. In 2001 Genomic Solutions also recorded unusual charges of \$4,200,000 for the write-off of in-process research and development acquired from Cartesian Technologies, Inc. and of \$4,005,000 for the impairment of certain long lived assets. In 2000 Genomic Solutions recorded a restructuring charge of \$600,000 to close its Chelmsford, Massachusetts proteomic facility. In 1999 Genomic Solutions recorded an unusual charge of approximately \$438,000 for the write-off of goodwill originating from the acquisition of certain assets of Insight Biomedical Imaging. In 1998 Genomic Solutions recorded an unusual charge of approximately \$340,000 for the write-off of in-process research and development acquired from ESA, Inc. In 1997 Genomic Solutions recorded an unusual charge of approximately \$1,578,000 consisting of approximately \$861,000 for the write down of goodwill and intangible assets and approximately \$328,000 write-off of unamortized capitalized software development costs related to the merger with B.I. System Corporation and approximately \$389,000 write-off of in-process research and development acquired from PBA Technologies, Ltd.
- (3) In 2000, Genomic Solutions accounted for the amendment to its subordinated notes as an extinguishment of debt and recorded an extraordinary loss of \$1,050,000. In 1997 Genomic Solutions recorded an extraordinary gain of approximately \$1,245,000 on the forgiveness of debt.
- (4) In 2000, Genomic Solutions recorded decretion of approximately \$1,059,000 on its common stock warrants. In 1999 Genomic Solutions recorded accretion of approximately \$3,861,000 on its common stock warrants.
- (5) In 2001, Genomic Solutions recorded a deemed dividend charge of approximately \$2,811,000 related to the repurchase of a portion of the Series P preferred stock held by PerkinElmer, Inc. In 2000 Genomic Solutions recorded a charge of \$8,000,000 related to the beneficial conversion feature associated with the issuance of Series P preferred stock to PerkinElmer, Inc.

#### Goodwill and other intangible assets Adoption of SFAS No. 142 (unaudited)

The following table presents the net loss data of Genomic Solutions, as if SFAS No. 142 was adopted for all years presented. On January 1, 2002, Genomic Solutions adopted SFAS No. 142, and accordingly no longer amortizes goodwill and indefinite lived intangible assets, but rather such assets are subject to annual impairment reviews or more frequently, if events or circumstances indicate that there may be an impairment. During the second quarter of 2002, Genomic Solutions completed the implementation review as required under SFAS No. 142, and concluded that there was no impairment of goodwill at the time of adoption on January 1, 2002.

	Years Ended December 31,					Six Months Ended June 30,	
	1997	1998	1999	2000	2001	2001	2002
	(in thousands, except per share data)						
Net loss before extraordinary items	\$ (3,236)	\$ (7,786)	\$ (11,142)	\$ (7,854)	\$ (26,100)	\$ (5,918)	\$ (3,963)
Net loss	(1,991)	(7,786)	(11,142)	(8,904)	(26,100)	(5,918)	(3,963)

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	Years Ended December 31,					Six Months Ended June 30,	
	1997	1998	1999	2000	2001	2001	2002
Net loss attributable to common stockholders	(1,991)	(7,786)	(15,003)	(15,845)	(28,911)	(8,729)	(3,963)
Add back: Goodwill amortization, net of tax	13	166	416	293	248	147	
Adjusted net loss before extraordinary items	\$ (3,223)	\$ (7,620)	\$ (10,726)	\$ (7,561)	\$ (25,852)	\$ (5,771)	\$ (3,963)
Adjusted net loss	\$ (1,978)	\$ (7,620)	\$ (10,726)	\$ (8,611)	\$ (25,852)	\$ (5,771)	\$ (3,963)
Adjusted net loss attributable to common stockholders	\$ (1,978)	\$ (7,620)	\$ (14,587)	\$ (15,552)	\$ (28,663)	\$ (8,582)	\$ (3,963)
<b>Net Loss per share, basic and diluted:</b>							
Net loss before extraordinary items	\$ (6.93)	\$ (2.71)	\$ (3.75)	\$ (0.45)	\$ 1.05	\$ (0.24)	\$ (0.13)
Net loss	(4.27)	(2.71)	(3.75)	(0.51)	(1.05)	(0.24)	(0.13)
Net loss attributable to common stockholders	(4.27)	(2.71)	(5.04)	(0.90)	(1.17)	(0.35)	(0.13)
Add back: Goodwill amortization, net of tax	0.03	0.06	0.14	0.02	0.01	0.01	
Adjusted net loss before extraordinary items	\$ (6.90)	\$ (2.65)	\$ (3.61)	\$ (0.43)	\$ (1.04)	\$ (0.23)	\$ (0.13)
Adjusted net loss	\$ (4.24)	\$ (2.65)	\$ (3.61)	\$ (0.49)	\$ (1.04)	\$ (0.23)	\$ (0.13)
Adjusted net loss attributable to common stockholders	\$ (4.24)	\$ (2.65)	\$ (4.90)	\$ (0.89)	\$ (1.16)	\$ (0.35)	\$ (0.13)
	As of December 31,					As of June 30,	
	1997	1998	1999	2000	2001	2001	2002
	(in thousands)					(unaudited)	

**Consolidated balance sheet data:**

Cash and cash equivalents	\$ 5,089	\$ 2,880	\$ 1,328	\$ 40,159	\$ 13,097	\$ 23,928	\$ 5,266
Total assets	8,579	11,694	13,858	65,224	47,924	48,790	41,993
Total debt	901	2,819	11,190	1,956	2,623	1,565	2,588
Total stockholders' equity (deficit)	\$ 5,912	\$ 5,845	\$ (9,381)	\$ 51,989	\$ 34,439	\$ 40,125	\$ 30,932

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**Recent Developments**

*Restructuring*

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In September 2001, Genomic Solutions announced a restructuring of its operations to implement significant cost savings and to accelerate its plan to achieve profitability. As part of the restructuring, it closed its Lansing, Michigan manufacturing facility and relocated those operations to its headquarters in Ann Arbor. The restructuring reduced Genomic Solutions' workforce in the United States and the United Kingdom by approximately 25%. In connection with the Cartesian Technologies, Inc. acquisition, Genomic Solutions closed its San Diego, California sales office and consolidated these activities with Cartesian's Irvine, California operations and Cartesian has closed its United Kingdom office and moved its operations to Genomic Solutions' Huntingdon facility.

As part of the restructuring, Genomic Solutions also sold certain assets used in connection with its proteomic contract research services business to Proteomic Research Services, Inc., a newly formed company owned and controlled by former employees of Genomic Solutions who were actively involved in providing proteomic-related services. Genomic Solutions owns 19.9% of Proteomic Research Services and has agreed to contract with it for assistance with certain proteomic projects. In return, Proteomic Research Services has agreed to purchase Genomic Solutions' instruments and consumables to the extent such items are required in connection with the operations of Proteomic Research Services.

In July 2002, Genomic Solutions announced a further restructuring of its operations. The restructuring is expected to result in a reduction of Genomic Solutions' operating cost structure. As part of the restructuring, Genomic Solutions reduced its workforce by approximately 30%, discontinued certain products and will close certain facilities. As a result of this restructuring, Genomic Solutions will record restructuring and inventory impairment charges of approximately \$1.5 million during the third quarter of 2002.

### *Relationship with Proteometrics*

In February 2002, Genomic Solutions entered into an exclusive worldwide software license with Proteometrics, LLC. Under this relationship, Genomic Solutions obtained the exclusive right to develop, support and license the Proteometrics bioinformatic software product line.

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## SELECTED COMBINED COMPANY UNAUDITED PRO FORMA FINANCIAL INFORMATION

The following selected unaudited pro forma combined financial information for the year ended December 31, 2001 and the six months ended June 30, 2002 has been derived from and should be read in conjunction with the Combined Company Unaudited Pro Forma Condensed Combined Financial Information and related notes included elsewhere in this proxy statement and prospectus. This information is based on the respective audited and unaudited historical consolidated financial statements of Harvard Bioscience and Genomic Solutions and after giving effect to the acquisition of Genomic Solutions, using the purchase method of accounting for business combinations. This information is for illustrative purposes only. The companies may have performed differently had they always been combined. You should not rely on the selected unaudited pro forma combined financial information as being indicative of the historical results that would have been achieved had the companies always been combined or the future results that the combined company will experience after the merger.

	<b>Year Ended December 31, 2001</b>	<b>Six months ended June 30, 2002</b>
<b>(in thousands, except per share amounts)</b>		
<b>Pro Forma Statement of Operations Data:</b>		
Revenues	\$ 57,708	\$ 38,408
Costs and Expenses:		
Cost of product and service revenues	31,971	19,062
Selling, marketing, general and administrative expenses	25,598	14,217
Research and development	9,976	4,507
Stock compensation expense	2,679	655
In-process research and development expense	9,647	
Amortization of goodwill and other intangibles	2,299	889
Restructuring costs	7,196	
Operating loss	(31,658)	(922)

Other (expense) income:

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	Year Ended December 31, 2001	Six months ended June 30, 2002
Interest, net	2,293	237
Other	(329)	(183)
Other (expense) income, net	1,964	54
Loss before income taxes	(29,694)	(868)
Income taxes	1,709	806
Net loss	(31,403)	(1,674)
Deemed dividend upon issuance to and subsequent repurchase of stock	(2,811)	
Net loss available to common stockholders	\$ (34,214)	\$ (1,674)
Loss per share:		
Basic and diluted	\$ (1.18)	\$ (0.06)
Weighted average common shares:		
Basic and diluted	28,985	29,670
	<b>As of June 30, 2002</b>	
	(in thousands)	

**Pro Forma Balance Sheet Data:**

Cash and cash equivalents	\$ 23,291
Working capital	37,760
Total assets	114,997
Long-term debt, net of current portion	136
Stockholders' equity	86,412

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**COMPARATIVE HISTORICAL AND PRO FORMA PER SHARE DATA**

The following tables set forth certain historical per share data of Harvard Bioscience and Genomic Solutions and combined per share data on an unaudited pro forma basis after giving effect to the merger using the purchase method of accounting, and assuming that an aggregate of 3.2 million shares of Harvard Bioscience common stock are issued in exchange for all of the shares of Genomic Solutions common stock in connection with the merger. The actual conversion ratio for Genomic Solutions common stock in the merger may be different than this assumed conversion ratio. The following data should be read in conjunction with the separate historical consolidated financial statements of Genomic Solutions included in this proxy statement and prospectus and the separate historical consolidated financial statements of Harvard Bioscience incorporated by reference in this proxy statement and prospectus. The unaudited pro forma combined per share data do not necessarily indicate the operating results that would have been achieved had the merger been completed as of the beginning of the earliest period presented and should not be taken as representative of future operations. The results may have been different if the companies had always been consolidated. All per share information has been restated, as applicable for stock splits, as discussed in each entity's respective consolidated financial statements and notes thereto. No cash dividends have ever been declared or paid on Harvard Bioscience or Genomic Solutions common stock.

	For the year ended December 31, 2001	As of and for the six months ended June 30, 2002
<b>Harvard Bioscience Historical:</b>		

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	For the year ended December 31, 2001		As of and for the six months ended June 30, 2002	
Basic income (loss) per share	\$	(0.20)	\$	0.07
Diluted income (loss) per share	\$	(0.20)	\$	0.07
Book value per Common Share as of June 30, 2002	\$		\$	2.67
<b>Genomic Solutions Historical:</b>				
Basic income (loss) per share	\$	(1.17)	\$	(0.13)
Diluted income (loss) per share	\$	(1.17)	\$	(0.13)
Book value per Common Share as of June 30, 2002	\$		\$	0.99
<b>Pro Forma Combined:</b>				
Basic loss per share	\$	(1.18)	\$	(0.06)
Diluted loss per share	\$	(1.18)	\$	(0.06)
Book value per Common Share as of June 30, 2002	\$		\$	2.88

**COMPARATIVE PER SHARE MARKET PRICE DATA AND DIVIDEND INFORMATION**

Genomic Solutions common stock is traded on the Nasdaq National Market under the symbol "GNSL." Harvard Bioscience common stock is traded on the Nasdaq National Market under the symbol "HBIO." The following table shows the high and low sale prices per share of Genomic Solutions common stock and Harvard Bioscience common stock as reported on the Nasdaq National Market for each of the quarters in the two most recent years and in the current year. Genomic Solutions common stock has been listed on the Nasdaq National Market since May 5, 2000, the date of Genomic Solutions' initial public offering. Harvard Bioscience common stock has been listed on the

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Nasdaq National Market since December 7, 2000, the date of Harvard Bioscience's initial public offering.

Fiscal Quarters	Genomic Solutions		Harvard Bioscience	
	High	Low	High	Low
2000:				
First Quarter				
* Second Quarter	\$ 17.38	\$ 7.88		
Third Quarter	30.12	11.81		
** Fourth Quarter	18.81	4.94	\$ 13.50	\$ 8.00
2001:				
First Quarter	\$ 9.00	\$ 2.50	\$ 7.12	\$ 5.88
Second Quarter	5.89	1.75	11.60	5.90
Third Quarter	4.44	1.50	14.50	7.81
Fourth Quarter	2.93	1.54	13.25	7.35
2002:				
First Quarter	\$ 2.80	\$ 1.30	\$ 10.15	\$ 6.75
Second Quarter	1.65	0.58	9.10	4.07
Third Quarter (through September 16, 2002)	0.90	0.37	6.73	3.85

\* Commencing on May 5, 2000 for Genomic Solutions

\*\* Commencing on December 7, 2000 for Harvard Bioscience

The Nasdaq stock market has notified Genomic Solutions that Genomic Solutions currently fails to meet the maintenance standards for continued listing on the Nasdaq National Market and that Genomic Solutions common stock is subject to delisting. Genomic Solutions is in the process of filing an appeal with Nasdaq and will continue to be listed on the Nasdaq National Market pending the resolution of this appeal.



**Recent Closing Prices**

The following table shows the closing prices per share of Genomic Solutions common stock and Harvard Bioscience common stock as reported on the Nasdaq National Market on (1) July 17, 2002, the business day preceding the public announcement that Harvard Bioscience and Genomic Solutions had entered into the merger agreement and (2) September 16, 2002, the most recent practicable date prior to the date of this proxy statement and prospectus.

The following table also includes the equivalent price per share of Genomic Solutions common stock on those dates. This equivalent per share price reflects the value of the Harvard Bioscience common stock and cash consideration you would receive for each share of your Genomic Solutions common stock if the merger was completed on either of these dates, applying (1) an assumed conversion ratio as of July 17, 2002 of 0.1015 of a share of Harvard Bioscience common stock and \$0.2855 in cash for each share of Genomic Solutions common stock and (2) an assumed conversion ratio as of September 16, 2002 of 0.1016 of a share of Harvard Bioscience common stock and \$0.2858 in cash for each share of Genomic Solutions common stock. These amounts are estimates based on the number of outstanding shares of Genomic Solutions common stock on each of July 17, 2002 and September 16, 2002, the most recent practicable date prior to the date of this proxy statement and prospectus, and assuming that all in-the-money options to purchase Genomic Solutions common stock outstanding on each of July 17, 2002 and September 16, 2002 are exercised prior to the merger, and may change at the completion of the merger as a result of changes in the number of shares of

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Genomic Solutions common stock outstanding due to, among other things, actual stock option exercises and purchases under the Genomic Solutions employee stock purchase plan.

	<b>Genomic Solutions Common Stock</b>	<b>Harvard Bioscience Common Stock</b>	<b>Equivalent Price Per Share</b>
July 17, 2002	\$ 0.50	\$ 5.34	\$ 0.8275*
September 16, 2002	\$ 0.69	\$ 4.87	\$ 0.7806**

\*

Applying an assumed conversion ratio as of July 17, 2002 of 0.1015 of a share of Harvard Bioscience common stock and \$0.2855 in cash for each share of Genomic Solutions common stock.

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Applying an assumed conversion ratio as of September 16, 2002 of 0.1016 of a share of Harvard Bioscience common stock and \$0.2858 in cash for each share of Genomic Solutions common stock.

**Because the market price of Genomic Solutions common stock and Harvard Bioscience common stock may increase or decrease before the completion of the merger, you are urged to obtain current market quotations.**

As of September 16, 2002, the most recent practicable date prior to the date of this proxy statement and prospectus, there were approximately 141 stockholders of record of Genomic Solutions who held an aggregate of 31,257,198 shares of Genomic Solutions common stock.

As of September 16, 2002, the most recent practicable date prior to the date of this proxy statement and prospectus, there were approximately 104 stockholders of record of Harvard Bioscience who held an aggregate of 26,797,396 shares of Harvard Bioscience common stock.

**Dividend Policy**

Genomic Solutions has never paid dividends on its common stock. Genomic Solutions currently intends to retain any earnings for use in its operations and does not anticipate paying cash dividends in the foreseeable future.

Harvard Bioscience has never declared or paid dividends on its common stock in the past and does not intend to pay dividends in the foreseeable future. Any future determination to pay dividends will be at the discretion of Harvard Bioscience's board of directors and will depend on Harvard Bioscience's financial condition, results of operations, capital requirements and other factors Harvard Bioscience's board of directors deems relevant.

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## RISK FACTORS

By voting in favor of the adoption and approval of the merger agreement and the approval of the merger, you will be choosing to invest in Harvard Bioscience common stock. An investment in Harvard Bioscience common stock involves a high degree of risk. In addition to the other information contained in or incorporated by reference into this proxy statement and prospectus, you should carefully consider the following risk factors in deciding whether to vote in favor of adoption and approval of the merger agreement and approval of the merger. In addition, you should keep the following risk factors in mind when you read forward-looking statements in this proxy statement and prospectus. Please refer to the section entitled "Cautionary Statements Regarding Forward-Looking Statements in this Proxy Statement and Prospectus" beginning on page 44 of this proxy statement and prospectus.

### Risks Related to the Merger

*Harvard Bioscience may not realize the expected benefits of the merger due to difficulties integrating the businesses, operations and product lines of Harvard Bioscience and Genomic Solutions.*

Harvard Bioscience's ability to achieve the benefits of the merger will depend in part on the integration and leveraging of technology, operations, sales and marketing channels and personnel of Harvard Bioscience and Genomic Solutions. The integration process will be a complex, time-consuming and expensive process and may disrupt Harvard Bioscience's business if not completed in a timely and efficient manner. The challenges involved in this integration include the following:

demonstrating to the combined company's customers and suppliers that the merger will not result in adverse changes in client service standards or business focus;

persuading the combined company's employees that Harvard Bioscience's and Genomic Solutions' business cultures are compatible; and

addressing any perceived adverse changes in business focus.

Harvard Bioscience may have difficulty successfully integrating the businesses, the domestic and foreign operations or the product lines of Harvard Bioscience and Genomic Solutions, and as a result, Harvard Bioscience may not realize any of the anticipated benefits of the merger. In particular, Harvard Bioscience may not successfully leverage Genomic Solutions' sales force or its distribution relationships which could adversely affect the combined company following the merger. Additionally, neither Harvard Bioscience nor Genomic Solutions can assure you that the growth rate of the combined company will equal the growth rates that have been experienced by Harvard Bioscience and Genomic Solutions, respectively, operating as separate companies in the past.

*If you are a holder of Genomic Solutions common stock, you will receive a fixed amount of cash and a fixed number of shares of Harvard Bioscience common stock in exchange for each of your shares of Genomic Solutions common stock, regardless of any changes in market value of Harvard Bioscience common stock or Genomic Solutions common stock.*

Upon completion of the merger, each share of Genomic Solutions common stock will be converted into the right to receive cash and shares of Harvard Bioscience common stock. While the aggregate merger consideration to be received by the stockholders of Genomic Solutions is fixed at 3,200,000 shares of Harvard Bioscience common stock and \$9,000,000 in cash, subject to adjustment in limited circumstances for extraordinary stock events and to preserve the intended tax free nature of the transaction, the per share conversion ratio for Genomic Solutions common stock will be determined based on the number of shares of Genomic Solutions common stock actually outstanding at the completion of the merger. Based on the number of outstanding shares of Genomic Solutions common stock on September 16, 2002, the most recent practicable date prior to the date of this proxy statement and prospectus, and assuming that all in-the-money options to purchase Genomic Solutions common

stock as of September 16, 2002 are exercised prior to the merger, each outstanding share of Genomic Solutions common stock would be converted into the right to receive approximately \$0.2858 in cash and 0.1016 shares of Harvard Bioscience common stock pursuant to the merger agreement. There will be no adjustment to the conversion ratio for Genomic Solutions common stock in the merger as a result of changes in the market price of either Harvard Bioscience common stock or Genomic Solutions common stock, and neither Harvard Bioscience nor Genomic Solutions is permitted to withdraw from the merger solely because of changes in the market price of Harvard Bioscience common stock or Genomic Solutions common stock. Accordingly, the amount of cash and the amount and dollar value of Harvard Bioscience common stock you will receive upon completion of the merger will depend on the number of shares of Genomic Solutions common stock outstanding and the market value of Harvard Bioscience common stock at the time of the merger, which may be different than the number of shares of Genomic Solutions common stock outstanding and the market value of Harvard Bioscience common stock on July 17, 2002 (the business day preceding the public announcement that Harvard Bioscience and Genomic Solutions had entered into the merger agreement), or September 16, 2002 (the most recent practicable date prior to the date of this proxy statement and prospectus). In addition, the merger may not be completed immediately following the Genomic Solutions special meeting at which the merger agreement and the merger are presented and voted upon, if other conditions to the merger have not been satisfied or waived. We cannot assure you that the value of the Harvard Bioscience common stock you will receive in the merger will not decline prior to the merger. Because the market price of Harvard Bioscience common stock and Genomic Solutions common stock may increase or decrease before the completion of the merger, you are urged to obtain current market quotations.

***Customer, vendor and employee uncertainty about the merger could harm the combined company.***

Harvard Bioscience's and Genomic Solutions' customers may, in response to the announcement or consummation of the merger, delay or defer purchasing decisions. Any delay or deferral in purchasing decisions by customers could adversely affect the business of the combined company. Similarly, Genomic Solutions' employees may experience uncertainty about their future role with the combined company until or after Harvard Bioscience announces and executes its strategies with regard to Genomic Solutions employees. This may adversely affect the combined company's ability to attract and retain key Genomic Solutions management, sales, marketing and technical personnel.

***Purchase accounting treatment and the impact of amortization of intangibles with definite lives relating to the merger could adversely affect Harvard Bioscience's operating results.***

The merger will be accounted for under the purchase method of accounting and Harvard Bioscience will be considered the acquirer of Genomic Solutions for accounting purposes. Accordingly, the historical financial statements of Harvard Bioscience will become the historical financial statements of the combined company following the merger. Under purchase accounting, Harvard Bioscience will record the following as the cost of acquiring the business of Genomic Solutions:

- (1) the sum of the market value of Harvard Bioscience common stock issued and the cash consideration paid in connection with the merger, and
- (2) the amount of direct transaction costs incurred by Harvard Bioscience.

Harvard Bioscience will allocate the cost of the items described in (1) and (2) above to the individual assets acquired and liabilities assumed, including intangible assets such as acquired technology, based on their respective fair values. Intangible assets, including goodwill with indefinite lives from acquisitions are evaluated annually to determine whether any portion of the remaining balance of goodwill may not be recoverable. The amount of purchase cost allocated to goodwill and other intangibles for accounting purposes is estimated to be approximately \$9.4 million computed using the estimated purchase price of \$27.0 million which is based on cash consideration of \$9 million, the

estimated fair value of common stock of \$17.3 million using the weighted average price of Harvard Bioscience's common stock during the five trading day period ended July 22, 2002, or \$5.41 per share, and direct transaction costs of approximately \$730,000. Included in the assumption of Genomic Solutions' liabilities are direct transaction costs of \$1.1 million estimated to be incurred by Genomic Solutions and one-time payments aggregating \$830,000 to certain officers of Genomic Solutions. If it is determined in the future that a portion of this goodwill is impaired, Harvard Bioscience will be required to write off that portion which could decrease the net income of Harvard Bioscience in the future, and this could have a material and adverse effect on the market value of Harvard Bioscience common stock following the completion of the

merger. These amounts are only estimates, however, and actual amounts may differ from these estimates.

***Harvard Bioscience and Genomic Solutions expect to incur significant costs associated with the merger.***

Harvard Bioscience estimates that it will incur direct transaction costs of approximately \$730,000, in addition to registration costs of approximately \$770,000 associated with the merger. The direct transaction costs of \$730,000 will be included as a part of the total purchase cost for accounting purposes, and the \$770,000 of registration costs will be included as a reduction of stockholders equity. In addition, Genomic Solutions estimates that it will incur transaction costs, which will be expensed as incurred for accounting purposes, of approximately \$1.9 million, including fees and other expenses payable to U.S. Bancorp Piper Jaffray Inc. in connection with the merger as described in the section entitled "The Merger and Related Transactions Consideration of the Merger by Genomic Solutions' Board of Directors Opinion of Genomic Solutions' Financial Advisor" beginning on page 58 of this proxy statement and prospectus and one-time payments aggregating \$830,000 to certain officers of Genomic Solutions. Harvard Bioscience believes the combined company may incur charges to operations, which are not currently reasonably estimable, in the quarter in which the merger is completed or the following quarters, to reflect costs associated with integrating the businesses and operations of Harvard Bioscience and Genomic Solutions. There can be no assurance that the combined company will not incur additional material charges in subsequent quarters to reflect additional costs associated with the merger.

***The price of Harvard Bioscience common stock may be affected by factors different from those affecting the price of Genomic Solutions common stock.***

When the merger is completed, holders of Genomic Solutions common stock will become holders of Harvard Bioscience common stock. Harvard Bioscience's business differs from that of Genomic Solutions, and Harvard Bioscience's results of operations, as well as the price of Harvard Bioscience common stock, may be affected by factors that are different from those affecting Genomic Solutions' results of operations and the price of Genomic Solutions common stock.

***If the merger is not completed, Genomic Solutions' stock price and future business and operations could be adversely affected.***

If the merger is not completed, Genomic Solutions may be subject to the following material risks, among others:

Genomic Solutions may be required to pay Harvard Bioscience a termination fee of \$1.3 million or to reimburse Harvard Bioscience for out-of-pocket expenses, including legal, accounting, printing and other fees, related to this transaction;

the price of Genomic Solutions common stock may decline to the extent that the current market prices of Genomic Solutions common stock reflects a market assumption that the merger will be completed; and

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Genomic Solutions' costs related to the merger, such as legal, accounting and some of the fees of Genomic Solutions' financial advisor, must be paid even if the merger is not completed.

Further, if the merger agreement is terminated and the Genomic Solutions board of directors determines to seek another merger or business combination, Genomic Solutions may not be able to find a partner willing to pay an equivalent or more attractive price than that which would be paid in the merger with Harvard Bioscience.

***The termination fee and the restrictions on solicitation contained in the merger agreement and the terms of the voting agreements may discourage other companies from trying to acquire Genomic Solutions.***

Until the completion of the merger, and with some exceptions, Genomic Solutions is prohibited from initiating or engaging in discussions with a third party regarding some types of extraordinary transactions, such as a merger, business combination or sale of a material amount of assets or capital stock. Genomic Solutions also agreed to pay a termination fee of \$1.3 million to Harvard Bioscience in specified circumstances and in certain other circumstances, to reimburse Harvard Bioscience's out-of-pocket expenses, including legal, accounting, printing and other fees, related to this transaction. In addition, holders of approximately 38% of the outstanding Genomic Solutions common stock as of July 17, 2002 have entered into agreements with Harvard Bioscience in which they agreed to vote in favor of the merger and to restrictions on initiating or engaging in discussions about any other acquisition proposals. These provisions could discourage other companies from trying to acquire Genomic Solutions even though those other companies might be willing to offer greater value to Genomic Solutions stockholders than Harvard Bioscience has offered in the merger. Payment of the termination fee or Harvard Bioscience's out-of-pocket expenses could also have a material

adverse effect on Genomic Solutions' financial condition.

***Certain of Genomic Solutions' directors and executive officers have special interests in the merger that may influence them to support and approve the merger.***

Certain of the directors and executive officers of Genomic Solutions have interests in the merger that are in addition to, or different than, their interests solely as Genomic Solutions stockholders. These interests include the following:

the payment of \$690,000 to Genomic Solutions' chief executive officer, in order to induce him to terminate his prior employment agreement and enter into a new employment agreement with the surviving corporation, which becomes effective upon the closing of the merger;

the nomination of Genomic Solutions' chief executive officer to the board of directors of Harvard Bioscience upon the effectiveness of the proposed merger;

the receipt of change in control payments under employment agreements with certain of Genomic Solutions' other executive officers;

the receipt of ongoing indemnification and insurance coverage with respect to acts taken and omissions to take action in their capacities as directors and officers of Genomic Solutions; and

the accelerated vesting of certain stock options, most of which currently are exercisable at prices higher than the recent trading prices of Genomic Solutions common stock, under the terms of existing option agreements.

The Genomic Solutions board of directors was aware of these interests when it approved the merger agreement and the merger. For a more detailed description of these interests, see "The Merger and Related Transactions Consideration of the Merger by Genomic Solutions' Board of Directors Interests of Genomic Solutions' Directors and Officers in the Merger" beginning on page 64 of this proxy statement and prospectus.

***The merger may fail to qualify as a reorganization for federal income tax purposes, resulting in your recognition of taxable gain or loss in respect of your Genomic Solutions shares and Harvard Bioscience's treatment of the merger as a taxable sale.***

Both Harvard Bioscience and Genomic Solutions intend the merger to qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended. Although the Internal Revenue Service, or IRS, will not provide a ruling on the matter, Genomic Solutions will, as a condition to closing, obtain a legal opinion from its tax counsel that the merger will constitute a reorganization for federal income tax purposes. These opinions do not bind the IRS or prevent the IRS from adopting a contrary position. If the merger fails to qualify as a reorganization, you generally would recognize gain or loss on each share of Genomic Solutions common stock surrendered in an amount equal to the difference between your adjusted tax basis in that share and the sum of the amount of cash and the fair market value of the Harvard Bioscience common stock received in exchange for that share upon completion of the merger.

In addition, if the merger fails to qualify as a reorganization, the merger would be treated as a deemed taxable sale of assets by Genomic Solutions for an amount equal to the merger consideration received by Genomic Solutions' stockholders plus any liabilities assumed by HAG Acq. Corp. As successor to Genomic Solutions, HAG Acq. Corp. would be liable for any tax incurred by Genomic Solutions as a result of this deemed asset sale.

#### **Risks Related to Harvard Bioscience**

***If Harvard Bioscience is unable to achieve and sustain market acceptance of its new target validation high throughput screening, assay development and ADMET screening products across their broad intended range of applications, Harvard Bioscience will not generate expected revenue growth.***

Harvard Bioscience's business strategy depends, in part, on successfully developing and commercializing its new target validation high throughput screening, assay development and ADMET screening technologies to meet customers' expanding needs and demands, an example of which is the COPAS<sup>®</sup> technology obtained from the 2001 acquisition of Union Biometrica. Market acceptance of this and other new products will depend on many factors, including the extent of Harvard Bioscience's marketing efforts and its ability to demonstrate to existing and potential customers that its technologies are superior to other technologies or techniques and products that are available now or may become available in the future. If Harvard Bioscience's new products do not gain market acceptance, or if market acceptance occurs at a slower rate than anticipated, it could materially adversely affect its business and future growth prospects.

***Harvard Bioscience's products compete in markets that are subject to rapid technological change, and therefore one or more of its products could be made obsolete by new technologies.***

Because the market for drug discovery tools is characterized by rapid technological change and frequent new product introductions, Harvard Bioscience's product lines may be made obsolete unless it is able to continually improve existing products and develop new products. To meet the evolving needs of its customers, Harvard Bioscience must continually enhance its current and planned products and develop and introduce new products. However, Harvard Bioscience may experience difficulties that may delay or prevent the successful development, introduction and marketing of new products or product enhancements. In addition, Harvard Bioscience's product lines are based on complex technologies that are subject to rapid change as new technologies are developed and introduced in the marketplace. Harvard Bioscience may have difficulty in keeping abreast of the rapid changes affecting each of the different markets it serves or intends to serve. Harvard Bioscience's failure to develop and introduce products in a timely manner in response to changing technology, market demands or the requirements

of its customers could cause its product sales to decline, and Harvard Bioscience could experience significant losses.

Harvard Bioscience offers and plans to offer a broad product line and has incurred and expects to continue to incur substantial expenses for development of new products and enhanced versions of its existing products. The speed of technological change in its market may prevent Harvard Bioscience from being able to successfully market some or all of its products for the length of time required to recover development costs. Failure to recover the development costs of one or more products or product lines could decrease Harvard Bioscience's profitability or cause Harvard Bioscience to experience significant losses.

***Harvard Bioscience has limited experience in manufacturing some of its products that could cause problems or delays resulting in lost revenue.***

If Harvard Bioscience fails to manufacture and deliver products in a timely manner, its relationships with its customers could be seriously harmed, and its revenue could decline. To achieve the production levels necessary for successful commercialization, Harvard Bioscience will need to scale-up its manufacturing facilities and in some cases establish automated manufacturing methods and quality control procedures. Harvard Bioscience cannot assure you that manufacturing or quality control problems will not arise as it attempts to scale-up its production or that it can scale-up manufacturing and quality control in a timely manner or at commercially reasonable costs. If it is unable to manufacture these products consistently on a timely basis because of these or other factors, Harvard Bioscience may not achieve the level of sales from these products that it otherwise anticipates.

***If Amersham Biosciences (formerly Amersham Pharmacia Biotech) terminates its distribution agreement with Harvard Bioscience or fails to perform its obligations under the distribution agreement, it could impair the marketing and distribution efforts for some of Harvard Bioscience's products and result in lost revenues.***

For the year ended December 31, 2001, approximately 30% of Harvard Bioscience's revenues were generated through an agreement with Amersham Biosciences, which was renegotiated in August 2001, under which Amersham Biosciences acts as the primary marketing and distribution channel for the products of Harvard Bioscience's Biochrom subsidiary. Under the terms of this agreement, Harvard Bioscience is restricted from allowing another person or entity to distribute, market and sell the majority of the products of its Biochrom subsidiary. Harvard Bioscience is also restricted from making or promoting sales of the majority of the products of its Biochrom subsidiary to any person or entity other than Amersham Biosciences or its authorized sub-distributors. Harvard Bioscience has little or no control over Amersham Biosciences' marketing and sales activities or the use of its resources. Amersham Biosciences may fail to purchase sufficient quantities of products from Harvard Bioscience or perform appropriate marketing and sales activities. The failure by Amersham Biosciences to perform these activities could materially adversely affect Harvard Bioscience's business and growth prospects during the term of this agreement. In addition, Harvard Bioscience's inability to maintain its arrangement with Amersham Biosciences for product distribution could materially impede the growth of Harvard Bioscience's business and its ability to generate sufficient revenue. Harvard Bioscience's agreement with Amersham Biosciences may be terminated with 30 days notice under some circumstances, including in the event of a breach of a material term by Harvard Bioscience. This

agreement has an initial term of three years, commencing August 1, 2001, after which it will automatically renew for an additional two years, unless terminated earlier by either party. In addition, the agreement may be terminated in accordance with its terms by either party upon 18 months prior written notice. While Harvard Bioscience believes its relationship with Amersham Biosciences is good, Harvard Bioscience cannot guarantee that the contract will be renewed or that Amersham Biosciences will aggressively market Harvard Bioscience's products in the future.

***Harvard Bioscience may be adversely affected by litigation involving Harvard University.***

On December 26, 2000, Harvard University filed a lawsuit in U.S. District Court, District of Massachusetts alleging that Harvard Bioscience's use of the "Harvard Bioscience" and "Harvard Apparatus" names infringes on Harvard University's trademarks. Harvard University is seeking both injunctive relief and monetary damages. On April 10, 2001, the U.S. District Court, District of Massachusetts denied Harvard University's request for a preliminary injunction prohibiting Harvard Bioscience from using the names "Harvard Bioscience" and "Harvard Apparatus." The Court did issue an order directing Harvard Bioscience not to use the "Harvard" name in the color crimson or in a font similar to the font used by Harvard University. On May 6, 2002, the Court issued a partial summary judgment order in favor of Harvard Bioscience and against Harvard University regarding Harvard Bioscience's use of the name "Harvard Apparatus." Harvard Bioscience intends to continue to vigorously defend the remaining claims as it believes that it has strong rights to the name "Harvard Bioscience" and that Harvard University's claims are without merit. Harvard Bioscience believes that the defense of these claims could involve significant litigation-related expenses, which could have an adverse effect on Harvard Bioscience's results of operations. If claims for injunctive relief or other damages are decided against it, Harvard Bioscience could suffer monetary damages, lose its ability to use the names "Harvard Bioscience" and "Harvard Apparatus," lose the reputation and goodwill associated with these names and ultimately experience decreased revenues and earnings in subsequent periods.

***Harvard Bioscience may be adversely affected by litigation or arbitration involving Paul D. Grindle.***

On February 4, 2002, Paul D. Grindle, the former owner of Harvard Apparatus, Inc., initiated an arbitration proceeding against Harvard Bioscience and certain directors before JAMS in Boston, Massachusetts. Mr. Grindle's claims arise out of post-closing purchase price adjustments related to Harvard Bioscience's purchase of the assets and business of Harvard Apparatus by virtue of an Asset Purchase Agreement dated March 15, 1996 and certain related agreements. In the arbitration demand, Mr. Grindle sought the return of 1,563,851 shares of stock in Harvard Bioscience, or the disgorgement of the profits of Harvard Bioscience's sale of the stock, as well as compensatory damages and multiple damages and attorney's fees under Mass. Gen. Laws, chapter 93A. In a demand letter that was attached to the arbitration demand, Mr. Grindle asserted losses in the amount of \$15 million, representing the value of the 1,563,851 shares of Harvard Bioscience's stock as of January 2, 2002. Harvard Bioscience believes that Mr. Grindle's claims are without merit and intends to defend them vigorously. Harvard Bioscience believes that the defense of these claims could involve significant litigation-related expenses, which could have an adverse effect on Harvard Bioscience's results of operations. If claims for injunctive relief or other damages are decided against it, Harvard Bioscience could suffer monetary damages.

***Harvard Bioscience's competitors and potential competitors may develop products and technologies that are more effective or commercially attractive than its products.***

Harvard Bioscience expects to encounter increased competition from both established and development-stage companies that continually enter the market. Harvard Bioscience anticipates that these competitors will include:

companies developing and marketing life sciences research tools,

health care companies that manufacture laboratory-based tests and analyzers,

diagnostic and pharmaceutical companies, and

companies developing drug discovery technologies.

Currently, Harvard Bioscience's principal competition comes from established companies that provide products that perform many of the same functions for which Harvard Bioscience markets its products. Harvard Bioscience's competitors may develop or market products that are more effective or commercially attractive than its current or future products. Many of Harvard Bioscience's competitors have substantially greater financial, operational, marketing and technical resources than Harvard Bioscience does. Moreover, these competitors may offer broader product lines and tactical discounts, and may have greater name recognition. In addition, Harvard Bioscience may face competition from new entrants into the field. Harvard Bioscience may not have the financial resources, technical expertise or marketing, distribution or support capabilities to compete successfully in the future.

***If Harvard Bioscience is unable to effectively protect its intellectual property, third parties may use its technology, which would impair Harvard Bioscience's ability to compete in its markets.***

Harvard Bioscience's continued success will depend in significant part on its ability to obtain and maintain meaningful patent protection for certain of its products throughout the world. Patent law relating to the scope of claims in the technology fields in which Harvard Bioscience operates is still evolving. The degree of future protection for Harvard Bioscience's proprietary rights is uncertain. Harvard Bioscience owns eleven U.S. patents and has eight patent applications pending in the U.S. Harvard Bioscience also owns numerous U.S. registered trademarks and trade names and has applications for the registration of trademarks and trade names pending. Harvard Bioscience relies on patents to protect a significant part of its intellectual property and to enhance its competitive position. However, Harvard Bioscience's presently pending or future patent applications may not issue as patents, and any patent previously issued to Harvard Bioscience may be challenged, invalidated, held unenforceable or circumvented. Furthermore, the claims in patents which have been issued or which may be issued to Harvard Bioscience in the future may not be sufficiently broad to prevent third parties from producing competing products similar to Harvard Bioscience's products. In addition, the laws of various foreign countries in which Harvard Bioscience competes may not protect its intellectual property to the same extent as do the laws of the United States. If Harvard Bioscience fails to obtain adequate patent protection for its proprietary technology, its ability to be commercially competitive will be materially impaired.

In addition to patent protection, Harvard Bioscience also relies on protection of trade secrets, know-how and confidential and proprietary information. To maintain the confidentiality of trade-secrets and proprietary information, Harvard Bioscience generally seeks to enter into confidentiality agreements with its employees, consultants and strategic partners upon the commencement of a relationship. However, Harvard Bioscience may not obtain these agreements in all circumstances. In the event of unauthorized use or disclosure of this information, these agreements, even if obtained, may not provide meaningful protection for Harvard Bioscience's trade-secrets or other confidential information. In addition, adequate remedies may not exist in the event of unauthorized use or disclosure of this information. The loss or exposure of Harvard Bioscience's trade secrets and other proprietary information would impair its competitive advantages and could have a material adverse effect on its operating results, financial condition and future growth prospects.

***Harvard Bioscience may be involved in lawsuits to protect or enforce its patents that would be expensive and time-consuming.***

In order to protect or enforce its patent rights, Harvard Bioscience may initiate patent litigation against third parties. Harvard Bioscience may also become subject to interference proceedings conducted in the patent and trademark offices of various countries to determine the priority of inventions. Several of Harvard Bioscience's products are based on patents that are closely surrounded by patents held by competitors or potential competitors. As a result, Harvard Bioscience believes there is a greater likelihood of a patent dispute than would be expected if its patents were not closely

surrounded by other patents. The defense and prosecution, if necessary, of intellectual property suits, interference proceedings and related legal and administrative proceedings would be costly and divert Harvard Bioscience's technical and management personnel from their normal responsibilities. Harvard Bioscience may not prevail in any of these suits. An adverse determination of any litigation or defense proceedings could put Harvard Bioscience's patents at risk of being invalidated or interpreted narrowly and could put its patent applications at risk of not issuing.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of Harvard Bioscience's confidential information could be compromised by disclosure during this type of litigation. For example, during the course of this kind of litigation, there could be public announcements of the results of hearings, motions or other interim proceedings or developments in the litigation. Securities analysts or investors may perceive these announcements to be negative, which could cause the market price of Harvard Bioscience's stock to decline.

***Harvard Bioscience's success will depend partly on its ability to operate without infringing on or misappropriating the intellectual property rights of others.***



Harvard Bioscience may be sued for infringing on the intellectual property rights of others, including the patent rights, trademarks and trade names of third parties. Intellectual property litigation is costly and the outcome is uncertain. If Harvard Bioscience does not prevail in any intellectual property litigation, in addition to any damages it might have to pay, Harvard Bioscience could be required to stop the infringing activity, or obtain a license to or design around the intellectual property in question. If Harvard Bioscience is unable to obtain a required license on acceptable terms, or is unable to design around any third party patent, Harvard Bioscience may be unable to sell some of its products and services, which could result in reduced revenue.

AmiKa Corporation, whose assets Harvard Bioscience purchased in July 2000, received and responded to correspondence from counsel to a third party competitor regarding the possible infringement by it of a patent and other pending patent applications held by such third party. Because this competitor has not pursued this matter since AmiKa's reply on June 7, 2000 in which AmiKa stated that it did not believe it was infringing on this competitor's patents, Harvard Bioscience believes that this matter has been concluded. However, Harvard Bioscience cannot assure you that this third party competitor will not assert these or similar claims in the future. Harvard Bioscience does not currently derive a significant portion of its revenue from products which depend on the intellectual property related to this alleged infringement.

***Changes in accounting for goodwill amortization may have a material adverse effect on Harvard Bioscience.***

Harvard Bioscience has historically amortized goodwill purchased in its acquisitions on a straight-line basis ranging from five to 15 years. Upon the adoption of SFAS No. 142, "Goodwill and Other Intangible Assets," goodwill and intangible assets with indefinite lives from acquisitions after June 30, 2001 and existing as of December 31, 2001 will not be amortized, but instead will be evaluated annually to determine whether any portion of the remaining balance of goodwill may not be recoverable, or more frequently, if events or circumstances indicate there may be an impairment. If it is determined in the future that a portion of Harvard Bioscience's goodwill is impaired, Harvard Bioscience will be required to write off that portion of its goodwill which could have an adverse effect on net income for the period in which the write off occurs. At June 30, 2002, Harvard Bioscience had unamortized goodwill of \$20.8 million, or 25% of its total assets.

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***Harvard Bioscience is dependent upon its licensed technologies and may need to obtain additional licenses in the future to offer its products and remain competitive.***

Harvard Bioscience has licensed key components of its technologies from third parties. While it does not currently derive a material portion of its revenue from products that depend on these licensed technologies, Harvard Bioscience may in the future. If its license agreements were to terminate prematurely or if it breaches the terms of any licenses or otherwise fails to maintain its rights to these technologies, Harvard Bioscience may lose the right to manufacture or sell its products that use these licensed technologies. In addition, Harvard Bioscience may need to obtain licenses to additional technologies in the future in order to keep its products competitive. If it fails to license or otherwise acquire necessary technologies, Harvard Bioscience may not be able to develop new products that it needs to remain competitive.

***Many of Harvard Bioscience's current and potential customers are from the pharmaceutical and biotechnology industries and are subject to risks faced by those industries.***

Harvard Bioscience derives a substantial portion of its revenues from pharmaceutical and biotechnology companies. Harvard Bioscience expects that pharmaceutical and biotechnology companies will continue to be its major source of revenues for the foreseeable future. As a result, Harvard Bioscience is subject to risks and uncertainties that affect the pharmaceutical and biotechnology industries, such as pricing pressures as third-party payers continue challenging the pricing of medical products and services, government regulation, ongoing consolidation and uncertainty of technological change, and to reductions and delays in research and development expenditures by companies in these industries. In particular, several proposals are being contemplated by lawmakers in the United States to extend the federal Medicare program to include reimbursement for prescription drugs. Many of these proposals involve negotiating decreases in prescription drug prices or imposing price controls on prescription drugs. If appropriate reimbursement cannot be obtained, it could result in customers purchasing fewer products from Harvard Bioscience as they reduce their research and development expenditures.

In particular, the biotechnology industry has been faced with declining market capitalization and a difficult capital-raising and financing environment. If biotechnology companies are unable to obtain the financing necessary to purchase Harvard Bioscience's products, Harvard Bioscience's business and results of operations could be materially adversely affected. As it relates to the pharmaceutical industry, several companies have significant patents that have expired or are about to expire, which could result in reduced revenues for those companies. If pharmaceutical companies suffer reduced revenues as a result of these patent expirations, they may be unable to purchase Harvard Bioscience's products, and Harvard Bioscience's business and results of operations could be materially adversely affected.

In addition, Harvard Bioscience is dependent, both directly and indirectly, upon general health care spending patterns, particularly in the research and development budgets of the pharmaceutical and biotechnology industries, as well as upon the financial condition of various governments and government agencies. Many of Harvard Bioscience's customers, including universities, government research laboratories, private foundations and other institutions, obtain funding for the purchase of products from grants by governments or government agencies. There exists the risk of a potential decrease in the level of governmental spending allocated to scientific and medical research which could substantially reduce or even eliminate these grants. If government funding necessary to purchase Harvard Bioscience's products were to decrease, Harvard Bioscience's business and results of operations could be materially adversely affected.

***Current negative economic trends may adversely impact Harvard Bioscience's business.***

Harvard Bioscience may experience reduced demand for its products as a result of the recent downturn and increased uncertainty in the general economic environment in which Harvard Bioscience and its customers operate. Harvard Bioscience cannot project the extent of the impact of the recent economic downturn. If economic conditions worsen or if a wider economic slowdown occurs, Harvard Bioscience may experience a material adverse effect on its business, operating results, and financial condition.

***Harvard Bioscience's business is subject to economic, political and other risks associated with international revenues and operations.***

Since Harvard Bioscience manufactures and sells its products worldwide, its business is subject to risks associated with doing business internationally. Harvard Bioscience's revenues from its non-U.S. operations represented approximately 60% of total revenues for the year ended December 31, 2001. Harvard Bioscience anticipates that revenue from international operations will continue to represent a substantial portion of total revenues. In addition, a number of Harvard Bioscience's manufacturing facilities and suppliers are located outside the United States. Accordingly, Harvard Bioscience's future results could be harmed by a variety of factors, including:

changes in foreign currency exchange rates, which resulted in a foreign currency loss of approximately \$100,000 and a reduction of foreign equity of approximately \$235,000 for the year ended December 31, 2001,

changes in a specific country's or region's political or economic conditions, including Western Europe, in particular,

potentially negative consequences from changes in tax laws affecting the ability to expatriate profits,

difficulty in staffing and managing widespread operations, and

unfavorable labor regulations applicable to European operations, such as the unenforceability of non-competition agreements in the United Kingdom.

***Harvard Bioscience's quarterly revenues will likely be affected by various factors, including the seasonal nature of purchasing in Europe and the timing of capital equipment purchases by customers.***

Harvard Bioscience's revenues may vary from quarter to quarter due to a number of factors, including the timing of catalog mailings and new product introductions, future acquisitions and its substantial sales to European customers, who in summer months often defer purchases. Therefore, Harvard Bioscience expects revenues from European sales to be lower during the summer season and as a result quarter-to-quarter revenues will likely experience fluctuations. With the acquisition of Union Biometrica in May 2001, an increasing portion of Harvard Bioscience's revenues may result from sales of relatively high-priced products. Delays in purchase orders, receipt, manufacture, shipment or receivables collection of these relatively high-priced products could lead to substantial variability in revenues, operating results and working capital requirements from quarter-to-quarter, which could adversely affect Harvard Bioscience's stock price. In particular, delays or reduction in purchase orders from the pharmaceutical and biotechnology industries could have a material adverse effect on Harvard Bioscience, as more fully described elsewhere in these risk factors.

***Harvard Bioscience may lose money when it exchanges foreign currency received from international revenues into U.S. dollars.***

For the year ended December 31, 2001, approximately 60% of Harvard Bioscience's business was conducted in currencies other than the U.S. dollar, which is its reporting currency. As a result, currency fluctuations among the U.S. dollar and the currencies in which Harvard Bioscience does business have caused and will continue to cause foreign currency transaction gains and losses. Currently, Harvard Bioscience attempts to manage foreign currency risk through the matching of assets and liabilities. In the future, Harvard Bioscience may undertake to manage foreign currency risk through additional hedging methods. Harvard Bioscience recognizes foreign currency gains or losses arising from its operations in the period incurred. Harvard Bioscience cannot guarantee that it will be successful in managing foreign currency risk or in predicting the effects of exchange rate fluctuations upon its future operating results because of the number of currencies involved, the variability of currency exposure and the potential volatility of currency exchange rates.

***If it engages in any acquisition, Harvard Bioscience will incur a variety of costs, and may never realize the anticipated benefits of the acquisition.***

Harvard Bioscience's business strategy includes the future acquisition of businesses, technologies, services or products that it believes are a strategic fit with its business. If Harvard Bioscience does undertake any acquisition, the process of integrating an acquired business, technology, service or product may result in unforeseen operating difficulties and expenditures and may absorb significant management attention that would otherwise be available for ongoing development of its business. Moreover, Harvard Bioscience may fail to realize the anticipated benefits of any acquisition as rapidly as expected or at all. Future acquisitions could reduce stockholders' ownership, cause Harvard Bioscience to incur debt, expose it to future liabilities and result in amortization expenses related to intangible assets with definite lives.

***If it fails to retain key personnel and hire, train and retain qualified employees, Harvard Bioscience may not be able to compete effectively, which could result in reduced revenue or increased costs.***

Harvard Bioscience's success is highly dependent on the continued services of key management, technical and scientific personnel. Harvard Bioscience's management and other employees may voluntarily terminate their employment at any time upon short notice. The loss of the services of any member of the senior management team, including the Chief Executive Officer, Chane Graziano, the President, David Green, the Chief Financial Officer, Susan Luscinski, or any of the technical or scientific staff may significantly delay or prevent the achievement of product development and other business objectives. Harvard Bioscience maintains key person life insurance on Messrs. Graziano and Green. Harvard Bioscience's future success will also depend on its ability to identify, recruit and retain additional qualified scientific, technical and managerial personnel. Competition for qualified personnel in the technology area is intense, and Harvard Bioscience operates in several geographic locations where labor markets are particularly competitive, including Boston, Massachusetts and London and Cambridge, England, and where demand for personnel with these skills is extremely high and is likely to remain high. As a result, competition for qualified personnel is intense, particularly in the areas of general management, finance, information technology, engineering and science, and the process of hiring suitably qualified personnel is often lengthy and expensive, and may become more expensive in the future. If it is unable to hire and retain a sufficient number of qualified employees, Harvard Bioscience's ability to conduct and expand its business could be seriously reduced.

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***Harvard Bioscience plans significant growth, and there is a risk that it will not be able to manage this growth.***

Harvard Bioscience's success will depend on the expansion of its operations both through organic growth and acquisitions. Effective growth management will place increased demands on management, operational and financial resources. To manage growth, Harvard Bioscience must expand its facilities, augment its operational, financial and management systems, and hire and train additional qualified personnel. Failure to manage this growth effectively could impair Harvard Bioscience's ability to generate revenue or could cause Harvard Bioscience's expenses to increase more rapidly than revenue, resulting in operating losses.

***Harvard Bioscience's stock price has fluctuated in the past and could experience substantial declines in the future and, as a result, management's attention may be diverted from more productive tasks.***

The market price of Harvard Bioscience's common stock has experienced significant fluctuations since its initial public offering in December 2000 and may become volatile and could decline in the future, perhaps substantially, in response to various factors, many of which are beyond its control, including:

technological innovations by competitors or in competing technologies,

revenues and operating results fluctuating or failing to meet the expectations of securities analysts or investors in any quarter,

downward revisions in securities analysts' estimates or management guidance,

conditions or trends in the biotechnology and pharmaceutical industries,

announcements of significant acquisitions or financings or changes in strategic partnerships, and

a decrease in the demand for Harvard Bioscience's common stock.

In addition, the stock market in general, and the Nasdaq National Market and the biotechnology industry market in particular, have experienced significant price and volume fluctuations that at times have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry factors may seriously harm the market price of Harvard Bioscience's common stock, regardless of its operating performance. In the past, securities class action litigation has often been instituted following periods of volatility in the market price of a company's securities. A securities class action suit against Harvard Bioscience could result in substantial costs, potential liabilities and the diversion of management's attention and resources.

***Provisions of Delaware law and of Harvard Bioscience's charter and bylaws may make a takeover more difficult which could cause its stock price to decline.***

Provisions in Harvard Bioscience's certificate of incorporation and bylaws and in the Delaware corporate law may make it difficult and expensive for a third party to pursue a tender offer, change in control or takeover attempt which is opposed by management and the board of directors. Public stockholders who might desire to participate in such a transaction may not have an opportunity to do so. Harvard Bioscience also has a staggered board of directors that makes it difficult for stockholders to change the composition of the board of directors in any one year. These anti-takeover provisions could substantially impede the ability of public stockholders to change Harvard Bioscience's management and board of directors. Such provisions may also limit the price that investors might be willing to pay for shares of Harvard Bioscience's common stock in the future.

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***Failure to raise additional capital or generate the significant capital necessary to expand its operations and invest in new products could reduce Harvard Bioscience's ability to compete and result in lower revenue.***

Harvard Bioscience anticipates that its existing capital resources will enable it to maintain currently planned operations for the foreseeable future. However, this expectation is premised on the current operating plan, which may change as a result of many factors, including market acceptance of new products and future opportunities with collaborators. Consequently, Harvard Bioscience may need additional funding sooner than anticipated. Harvard Bioscience's inability to raise capital could seriously harm its business and product development efforts.

If Harvard Bioscience raises additional funds through the sale of equity or convertible debt or equity-linked securities, existing percentages of ownership in the company will be reduced. In addition, these transactions may dilute the value of outstanding Harvard Bioscience stock. Harvard Bioscience may issue securities that have rights, preferences and privileges senior to its common stock. If it raises additional funds through collaborations or licensing arrangements, Harvard Bioscience may relinquish rights to certain of its technologies or products, or grant licenses to third parties on terms that are unfavorable. Harvard Bioscience may be unable to raise additional funds on acceptable terms. If future financing is not available or is not available on acceptable terms, Harvard Bioscience may have to curtail operations or change its business strategy.

***Future issuance of preferred stock may dilute the rights of Harvard Bioscience's common stockholders.***

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Harvard Bioscience's board of directors has the authority to issue up to 5,000,000 shares of preferred stock and to determine the price, privileges and other terms of these shares. The board of directors may exercise this authority without any further approval of stockholders. The rights of the holders of common stock may be adversely affected by the rights of future holders of preferred stock.

***Cash dividends will not be paid on Harvard Bioscience's common stock.***

Harvard Bioscience intends to retain all of its earnings to finance the expansion and development of its business and does not anticipate paying any cash dividends in the foreseeable future. As a result, capital appreciation, if any, of Harvard Bioscience's common stock will be a stockholder's sole source of gain for the foreseeable future.

***An active trading market for Harvard Bioscience's common stock may not be sustained.***

Although Harvard Bioscience's common stock is quoted on the Nasdaq National Market, an active trading market for the shares may not be sustained.

### **Risks Related to Genomic Solutions**

The following matters, among others, may have a material adverse effect on the business, financial condition, liquidity, results of operations or prospects, financial or otherwise, of Genomic Solutions, particularly if the stockholders of Genomic Solutions do not vote to adopt and approve the merger agreement and approve the merger at the special meeting. In addition, many of the following risks will apply to Harvard Bioscience if the merger is completed.

***Genomic Solutions has a history of losses and anticipates future losses and negative cash flow.***

Genomic Solutions incurred net losses of \$4.0 million for the six months ended June 30, 2002, \$26.1 million for the fiscal year ended December 31, 2001, \$8.9 million for the fiscal year ended December 31, 2000 and \$11.1 million for the fiscal year ended December 31, 1999. As of June 30, 2002, Genomic Solutions had an accumulated deficit of \$72.0 million. In September 2001, Genomic Solutions instituted a restructuring plan designed to reduce its operating expenses. In July 2002,

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Genomic Solutions announced a further restructuring of its operations. However, even with these restructurings, Genomic Solutions needs to generate significant revenues to achieve and maintain profitability. Genomic Solutions' continued revenue growth depends on many factors, many of which are beyond its control, including factors discussed in this risk factors section. Genomic Solutions may not sustain revenue growth and it may become profitable at a different time or it may never become profitable. Even if Genomic Solutions does achieve profitability, it may not sustain or increase profitability on a quarterly or annual basis.

***Genomic Solutions may need additional capital to fund its operations, which capital may be unavailable or costly.***

Based on its current plans, Genomic Solutions believes that its existing cash and cash equivalents and revenue generated from operations will be sufficient to fund its operating expenses, debt obligations and capital requirements through June 30, 2003. However, if Genomic Solutions is not able to achieve positive cash flow during this period, it may need to raise additional capital to fund its operations. Genomic Solutions may also need to raise additional capital to fund research and development programs, scale up manufacturing activities, to expand sales and marketing capabilities and to fund unforeseen expenses. Many factors, some of which are beyond its control, may determine the timing and amount of funds Genomic Solutions will need, and it may need funds sooner than currently anticipated. Genomic Solutions may be unable to obtain these funds on suitable terms, or at all.

***Genomic Solutions' systems and products may fail to maintain or achieve sufficient market acceptance, which would impair its ability to generate sales revenue.***

The commercial success of Genomic Solutions' systems and products will depend upon continued and expanding market acceptance of its new and existing DNA microarray, proteomic, and high speed dispensing products by pharmaceutical and biotechnology companies, academic research centers and government research laboratories. Market acceptance depends on many factors, including researchers' belief that Genomic Solutions' systems are an attractive alternative to current technologies for the generation, acquisition, analysis and management of genomic, proteomic and other drug discovery information. These potential customers may be reluctant to accept newer technologies that may require learning new techniques and procedures and abandoning or modifying current methodologies with which they are comfortable and familiar.

*The relatively high price of Genomic Solutions' products and services may deter potential customers from buying its systems.*

Genomic Solutions' potential customers may be deterred from buying its products due to their cost. Genomic Solutions may be required by competitive forces or for other reasons to discount the price of its products to generate sales. Furthermore, its failure to place sufficient quantities of its systems will have a material adverse effect on its ability to sell consumables. Market acceptance of products could be adversely affected by limited funding available for capital acquisitions by customers, as well as internal obstacles to customer approvals for purchases of products. Because of these and other factors, Genomic Solutions may not be able to maintain or achieve sufficient market acceptance to become profitable.

*Genomic Solutions' products will require additional development to remain competitive, which it may be unable to achieve in a timely and cost-effective manner.*

While Genomic Solutions' products have been sold commercially, its currently available microarray, proteomic and high speed dispensing products may require design and functional modifications as scientific procedures and methods change. As scientific knowledge advances, Genomic Solutions

anticipates a need for new instrumentation, software and consumable products. Any future products will require significant development, investment and testing. Genomic Solutions may need to undertake costly and time-consuming efforts to achieve these objectives. It cannot assure you that it will successfully design, develop, manufacture, market or sell any future products in a timely and cost-effective manner, if at all, or that it will be able to sustain or increase sales revenue from its current systems and products.

*Concentration of customers may limit Genomic Solutions' market and its ability to achieve sales growth.*

Genomic Solutions expects that its customers will be concentrated in a limited number of pharmaceutical and biotechnology companies, academic research centers and government-funded research laboratories that can afford its systems. As a result, its financial performance may depend on large orders from a limited number of customers, and the loss of, or reduction in, purchase orders from its customers will impair its sales. If consolidation trends in the pharmaceutical and biotechnology industries continue, the number of Genomic Solutions' current and potential customers could decrease. If this occurs, its large customers may seek reductions in the prices of products and services based on volume purchases.

*If Genomic Solutions fails to achieve and maintain the high manufacturing standards that its products require, or if it is unable to develop additional manufacturing capacity, its commercial opportunity will be reduced or eliminated.*

Genomic Solutions' microarray and proteomic systems and high speed dispensing products require careful calibration and precise, high-quality manufacturing. If Genomic Solutions fails to achieve and maintain these high manufacturing standards, including the incidence of manufacturing errors, design defects or component failures, it could experience product recalls or withdrawals, delays or failures in product testing or delivery, cost overruns or other problems that will impair sales. Despite its high manufacturing standards, Genomic Solutions cannot completely eliminate the risk of errors, defects or failures. If it is unable to manufacture its products on a timely basis at acceptable quality and cost and in commercial quantities, or if it experiences unanticipated technological problems or delays in production, Genomic Solutions' commercial opportunity will be reduced or eliminated.

*The sales cycle for Genomic Solutions' products is lengthy and it may spend significant time on sales opportunities with no assurance of success.*

Genomic Solutions' ability to obtain customers for its products depends in significant part upon the perception that its products can help accelerate drug discovery and development efforts. The sales cycle for its systems is typically between three and six months due to the education effort that is required. Genomic Solutions' sales efforts often require sales presentations to various departments within a single customer, including research and development personnel and key management. In addition, Genomic Solutions may be required to negotiate agreements containing terms unique to each customer. Genomic Solutions may expend substantial funds and management effort with no assurance that it will successfully sell its systems or products to the customer.

*Genomic Solutions depends on third-party suppliers, and any failure to obtain product components from these suppliers in a timely manner will interfere with its ability to produce its products.*

The lasers, filters and optics used in Genomic Solutions' GeneTAC Biochip Analyzers, the fluid transport mechanism used in its GeneTAC Hybridization Station, and the valves used in its high speed dispensing products are supplied by a limited group of suppliers. These products accounted for approximately 50% of Genomic Solutions' revenue in 2001 and 59% of Genomic Solutions' revenue in the six months ended June 30, 2002. If Genomic Solutions is unable to obtain these parts from its suppliers, it may be unable to secure an alternative supplier within a reasonable time period, or on commercially reasonable terms, if at all. Genomic Solutions' reliance on outside vendors generally, and a sole or a limited group of suppliers in particular, could also result in reduced control over quality, pricing and time of receipt of materials and components.

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***Any reduction, delay or termination of government research funding could reduce, or cause timing fluctuations in, Genomic Solutions' sales.***

Genomic Solutions depends on revenue derived from sales to researchers, universities, government laboratories and private foundations whose funding may partially depend upon grants from government agencies like the U.S. National Institutes of Health and similar domestic and international agencies. Although the level of research funding has increased during the past several years, these increases may not continue or research funding may be reduced. Government funding of research and development is subject to the political process, which is inherently fluid and unpredictable. Also, government proposals aiming to reduce or eliminate budget deficits have sometimes included reduced allocations or delays or terminations of funding to the National Institutes of Health and other government agencies that fund research and development activities. A reduction in government funding for the National Institutes of Health or other government research agencies could result in lower sales or cause fluctuations in Genomic Solutions' sales and operating results.

***As a result of converting its distribution arrangement with PerkinElmer, Inc. to a non-exclusive arrangement, Genomic Solutions' revenues could be adversely affected.***

In 2001 Genomic Solutions relied on PerkinElmer, Inc. to exclusively market and sell Genomic Solutions' products in every country except the United States and Japan. For the year 2001, sales by PerkinElmer accounted for approximately 30% of Genomic Solutions' revenue. In November 2001, PerkinElmer completed its acquisition of Packard Biosciences, giving it the opportunity to manufacture and distribute products which are competitive with Genomic Solutions' microarray scanning and high throughput screening products. In January 2002, Genomic Solutions modified its arrangement so that PerkinElmer has the non-exclusive right to market and sell most of Genomic Solutions' products outside of the United States and Japan and non-exclusive rights to distribute limited products in the United States and Japan. If PerkinElmer does not successfully market and sell Genomic Solutions' products in its capacity as a non-exclusive distributor, Genomic Solutions' revenues will be adversely affected.

***If Genomic Solutions is unable to find additional distributors to supplement PerkinElmer's efforts, its revenues could be adversely affected.***

As a result of the modification of Genomic Solutions' arrangement with PerkinElmer to make PerkinElmer a non-exclusive distributor of its products, Genomic Solutions has more flexibility and control over the distribution of its products in foreign markets while retaining the benefit of having PerkinElmer as a distributor. Genomic Solutions intends to supplement the efforts of PerkinElmer by expanding its direct sales activities in Europe and appointing new distributors in other foreign markets. Because the PerkinElmer relationship was only recently changed, Genomic Solutions has not yet had adequate time to locate, hire and train the appropriate number of new salespersons and distributors and it cannot assure you that it will be able to do so. If Genomic Solutions is not successful in supplementing PerkinElmer's sales efforts with direct sales efforts and new distributors, its revenues will be adversely affected.

***The risks associated with maintaining international operations could adversely affect Genomic Solutions' business.***

The sale and manufacture of Genomic Solutions' products internationally involve a number of risks, including:

difficulties in staffing and managing foreign operations;

costs and risks of deploying systems in foreign countries;

changes in regulatory requirements;

licenses, tariffs and other trade barriers;

limited protection of intellectual property rights;

the burden of complying with a wide variety of complex foreign laws and treaties;

potentially adverse tax consequences; and

political and economic instability.

Genomic Solutions' international operations also will be subject to the risks associated with the imposition of legislation and regulations relating to the import or export of high-technology products. Tariffs or restrictions upon the importation or exportation of Genomic Solutions' products may be implemented by the United States or other countries which will adversely affect its ability to sustain or increase its international sales.

***Genomic Solutions is subject to foreign currency fluctuations which may affect its operating results.***

A significant portion of Genomic Solutions' business historically has been conducted in currencies other than the U.S. dollar, which is Genomic Solutions' reporting currency. Genomic Solutions' agreement with PerkinElmer requires payment in U.S. currency. Currently, only Genomic Solutions' business in Japan and the U.K. is conducted in foreign currencies. Japan and the U.K. represented approximately 20% of Genomic Solutions' total revenue in fiscal year 2001 and may continue to represent a large portion of its total sales. As Genomic Solutions establishes direct sales forces in foreign markets, some of its business may be conducted in foreign currencies. Currency fluctuations among the U.S. dollar and the currencies in which Genomic Solutions will do business will cause foreign currency transaction gains and losses in the period incurred. Genomic Solutions cannot predict the effects of exchange rate fluctuations upon its future operating results because of the variability of currency exposures and the potential volatility of currency exchange rates. Genomic Solutions may choose to engage in foreign exchange hedging transactions to manage its foreign currency exposure, but its strategies may not adequately protect its operating results from the effects of exchange rate fluctuations and may expose its business to additional risk and loss.

***If Genomic Solutions is unable to retain its core employee base and hire skilled scientists, technicians and other key personnel, its ability to develop and manufacture its products and provide its services could suffer.***

In September of 2001, and July of 2002, Genomic Solutions implemented separate restructuring plans that included significant reductions in the number of Genomic Solutions' employees. Genomic Solutions' ability to adequately service its customers will depend, in large part, on its ability to retain its remaining employee base and hire new scientists and technicians with the skills necessary to keep pace with continuing changes in genomic and proteomic research and high throughput dispensing. Genomic Solutions believes that it faces risks associated with employee attrition based on its recent restructuring and the general downturn in the economy. Genomic Solutions believes that its recent reductions in work force could make it difficult to retain its remaining employees and hire new employees as needed. Any failure to retain this base or hire and train new qualified personnel would seriously damage Genomic Solutions' business.

***If Genomic Solutions is unable to efficiently integrate and operate recent acquisitions, its business could be harmed.***

Genomic Solutions acquired Cartesian Technologies, Inc. in December 2001. It has also acquired numerous other businesses, complementary technologies and product lines in the last several years. The

rapid growth associated with these acquisitions and the difficulties Genomic Solutions has experienced in integrating these businesses has placed, and will continue to place, a significant strain on Genomic Solutions' systems, controls and managerial resources. The management team of Genomic Solutions has expended significant time and effort in integrating the operations of acquired businesses. It expects to continue to expend significant resources in integrating those companies. If it does not accomplish these tasks, Genomic Solutions' financial condition and



results of operations may be materially and adversely affected.

***Genomic Solutions' stock price may be volatile and may lead to losses by investors and result in securities litigation.***

The trading price of Genomic Solutions common stock may be subject to wide fluctuation. Between its initial public offering on May 5, 2000 and the conversion of all of its callable common stock to common stock on April 18, 2001, the per share sales price of Genomic Solutions callable common stock on the Nasdaq National Market fluctuated from a low of \$1.906 to a high of \$30.125. Between April 19, 2001, and September 16, 2002, the per share sales price of Genomic Solutions common stock on the Nasdaq National Market fluctuated from a low of \$.37 to a high of \$5.42.

Factors that might cause the market price of Genomic Solutions common stock to fluctuate include:

changes in Genomic Solutions' business or results of operation;

delisting of Genomic Solutions' common stock from the Nasdaq National Market;

quarterly variations in operating results or growth rates;

changes in estimates or recommendations by securities analysts;

market conditions related to investor interest in life science and biotechnology stocks;

general conditions in the industry;

announcements of mergers and acquisitions and other actions by competitors;

regulatory and judicial actions;

general economic conditions; and

announcements of product developments and other events.

In addition, the stock market in general, and the Nasdaq National Market and the biotechnology industry market in particular, have experienced significant price and volume fluctuations that at times have been unrelated or disproportionate to the operating performance of the companies whose stock is traded on those markets. These broad market and industry factors may seriously harm the market price of Genomic Solutions' common stock, regardless of its operating performance. In the past, securities class action litigation has often been instituted following periods of volatility in the market price of a company's securities. A securities class action suit against Genomic Solutions could result in substantial costs, potential liabilities and the diversion of management's attention and resources.

***Genomic Solutions' market price may be negatively impacted if the merger with Harvard Bioscience is not concluded.***

On July 17, 2002, Genomic Solutions entered into the merger agreement with Harvard Bioscience. Consequently, Genomic Solutions believes its stock price has begun to take into account the likelihood of the merger being concluded. Failure to consummate this merger may have a significant negative impact on the trading price of Genomic Solutions' common stock. While Genomic Solutions is working to complete the merger during the fourth quarter of calendar year 2002, the consummation of the

merger is subject to approval of the transaction by Genomic Solutions' stockholders and other customary closing conditions, many of which are beyond Genomic Solutions' control.

***Genomic Solutions' common stock may be delisted from the Nasdaq National Market.***

The Nasdaq stock market has notified Genomic Solutions that Genomic Solutions currently fails to meet the maintenance standards for continued listing on the Nasdaq National Market. As a result, Genomic Solutions' common stock is subject to delisting. Genomic Solutions is in the process of filing an appeal with Nasdaq and will continue to be listed on the Nasdaq National Market pending the resolution of this appeal. Genomic Solutions believes that the market price for its common stock may be adversely affected as a result of its failure to continue to be listed on the Nasdaq National Market.

***The recent economic downturn may adversely affect Genomic Solutions' business.***

Genomic Solutions' ability to sell its products depends upon the general economic environment in which its customers operate. The recent economic downturn could cause longer sales cycles and slower growth. In addition, Genomic Solutions' business depends upon personal interactions of its sales force and customers. Typically before a sale is consummated, the customer visits Genomic Solutions' facilities to receive a demonstration of the products. As a result of the economic downturn many customers have curtailed travel. If Genomic Solutions' customers are unwilling to travel by air, its sales could be adversely affected.

***Genomic Solutions does not expect to pay any dividends in the foreseeable future.***

Genomic Solutions has never paid dividends on its common stock and it does not anticipate paying cash dividends in the foreseeable future. It intends to retain any earnings to finance the development of its business and, consequently, may never pay cash dividends.

***Genomic Solutions and its customers are subject to significant technological uncertainty which could result in reduced acceptance and demand for Genomic Solutions' products.***

Genomic Solutions' products, and the research for which they are predominately used, involve several new and complex technologies. The instrumentation and software that comprise Genomic Solutions' systems have only recently been used in commercial applications. Scientists and technicians using Genomic Solutions' products require new technical skills and training and may experience difficulties with the products. As the products continue to be used, it is possible that previously unrecognized defects will emerge. Further, in order for Genomic Solutions to address new applications for its products, it may have to add features and design new software. If it is unable to validate or achieve the improvements in its products necessary for their continued successful commercialization, the demand for its products will suffer.

The outcomes of research based on technologies using Genomic Solutions' products will be subject to the risks of failure inherent in the development of new technologies. These risks include the possibility that:

any products based on these technologies are ineffective, unreliable or unsafe, or otherwise fail;

producers will be unable to manufacture the products on a large scale or market the products economically;

proprietary rights of third parties will preclude the marketing of the products; and

third parties will market equivalent or superior products.

The failure of research and development activities using Genomic Solutions' products to result in commercially viable products could reduce the demand for those products.

***Genomic Solutions faces intense competition which could result in reduced acceptance and demand for its products.***

The genomic, proteomic and high throughput screening markets are intensely competitive, highly fragmented and rapidly changing. Genomic Solutions competes with many companies in the United States and abroad that are engaged in the development and production of products that analyze genomic and proteomic information and equipment used for high speed dispensing. Currently, Genomic Solutions' principal competition comes from established companies and organizations providing products that use existing technologies which perform many of the same functions for which Genomic Solutions markets its systems. These products include a variety of established assays and tests, including gel-based technologies. Future competition in the genomic, proteomic and high throughput screening fields will likely come from existing competitors as well as other companies seeking to develop new technologies for these markets. In addition, pharmaceutical and biotechnology companies have significant needs for genomic and proteomic information and high speed dispensing equipment and may choose to develop or acquire competing technologies to meet these needs. If Genomic Solutions is unable to compete effectively, there will be reduced acceptance of and demand for its products.

Many of Genomic Solutions' competitors have greater financial, technical, research, marketing, sales, distribution, service and other resources than Genomic Solutions does. Moreover, its competitors may have greater name recognition and more extensive customer bases than it does, and they may offer discounts as a competitive tactic. In addition, several development-stage companies are currently producing or developing products that compete with or will compete with Genomic Solutions' products. Genomic Solutions' competitors may develop or market technologies or products that are more effective or commercially attractive than Genomic Solutions' current or future products, or that may render its technologies and products obsolete.

***Genomic Solutions may be involved in lawsuits to protect or enforce its patents, which would be expensive and, if Genomic Solutions loses, may cause it to lose some of its intellectual property rights, which would reduce its ability to compete in the market.***

Genomic Solutions' success will depend on its ability to obtain and protect patents on its technology and to protect its trade secrets. Genomic Solutions' issued and future patents may not afford meaningful protection for its technology and products. Others may challenge those patents and, as a result, the patents could be narrowed, invalidated or unenforceable. In addition, Genomic Solutions' current and future patent applications may not result in the issuance of patents in the United States or foreign countries. Competitors may develop similar products that do not conflict with Genomic Solutions' patents. Competitors may have filed applications or obtained patents or proprietary rights competitive with or similar to those of Genomic Solutions. In order to protect or enforce its patent rights, Genomic Solutions may initiate patent litigation which would be expensive, take significant time and divert management's attention from other business concerns. The patent position of biotechnology firms generally is highly uncertain, involves complex legal and factual questions, and has recently been the subject of much litigation. No consistent policy has emerged from the U.S. Patent and Trademark Office or the courts regarding the breadth of claims allowed or the degree of protection afforded under biotechnology patents. In addition, there is a substantial backlog of biotechnology patent applications at the U.S. Patent and Trademark Office, and the approval or rejection of patent applications may take several years.

***The rights Genomic Solutions relies upon to protect the intellectual property underlying its products may not be adequate, which could enable third parties to use Genomic Solutions' technology, reducing its ability to compete in the market.***

Genomic Solutions relies on trade secret protection for some of the confidential and proprietary information for which it has not sought patent protection. Genomic Solutions believes that it has developed proprietary technology and processes relating to numerous aspects of its micro-array, proteomic and high throughput systems. Genomic Solutions has taken measures to protect its proprietary technologies and processes and continues to explore ways to enhance these protections. It requires its employees, consultants and advisors to execute confidentiality agreements. However, Genomic Solutions cannot guarantee that these agreements will provide adequate protection against improper use or disclosure of confidential information. Further, others may independently develop substantially equivalent proprietary information and techniques, or otherwise gain access to Genomic Solutions' trade secrets.

***Genomic Solutions' success depends on its ability to operate without infringing or misappropriating the proprietary rights of others.***

Genomic Solutions cannot be certain that U.S. or foreign patents or patent applications of other companies do not exist or will not be issued that would materially and adversely affect its ability to commercialize its products. Genomic Solutions may be sued for infringing or misappropriating the patent or other intellectual property rights of others. Intellectual property litigation is costly, even if Genomic Solutions prevails. In addition, litigation is time consuming and could divert management attention and resources away from Genomic Solutions' business. If Genomic Solutions does not prevail in any litigation, in addition to any damages it might have to pay, it could be required to stop the infringing activity or obtain a license requiring royalty payments. Any required license may not be available to Genomic Solutions on acceptable terms, or at all. In addition, some licenses may be non-exclusive, and therefore, Genomic Solutions' competitors may have access to the same technology licensed to it. If Genomic Solutions fails to obtain a required license or is unable to design around a patent which it infringes, it may be unable to sell some of its products.

***Ethical concerns surrounding the use of genomic information and misunderstanding of the nature of its business could adversely affect Genomic Solutions' ability to develop and sell its existing products and new products.***

Genetic screening of humans is used to determine individual predisposition to medical conditions. Genetic screening has raised ethical issues regarding the confidentiality and appropriate uses of the resulting information. Government authorities may regulate or prohibit the use of genetic screening to determine genetic predispositions to medical conditions. Additionally, the public may disfavor and reject the use of genetic screening.

Genomic and proteomic research is used to determine the role of genes and proteins in living organisms. Genomic Solutions' products are designed and used for genomic and proteomic research and drug discovery and cannot be used for genetic screening without significant modification. However, it is possible that government authorities and the public may fail to distinguish between the genetic screening of humans and genomic and proteomic research. If this occurs, Genomic Solutions' products and the processes for which its products are used may be subjected to government regulations intended to affect genetic screening. Further, if the public fails to distinguish between the two fields, it may pressure Genomic Solutions' customers to discontinue the research and development initiatives for which Genomic Solutions' products are used.

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***Genomic Solutions may not have adequate insurance, and if it is subject to product liability claims, it may experience reduced demand for its products or be required to pay damages that exceed its insurance limitations.***

Product liability claims asserted against Genomic Solutions, regardless of their merit or potential outcome, may adversely affect Genomic Solutions' reputation, result in reduced demand for its products and make it more difficult for Genomic Solutions to expand its business. Also, Genomic Solutions cannot assure you that its current insurance policies will adequately protect it or that it can or will maintain its insurance policies on commercially acceptable terms, or at all.

***Genomic Solutions' former independent public accountant, Arthur Andersen LLP, has been found guilty of federal obstruction of justice charges and you are unlikely to be able to exercise effective remedies against them in any legal action.***

Although Genomic Solutions has dismissed Arthur Andersen LLP as its independent public accountants and engaged KPMG LLP, its consolidated financial statements as of and for the fiscal years ended December 31, 2001, 2000, 1999, 1998 and 1997 were audited by Arthur Andersen LLP. On March 14, 2002, Arthur Andersen was indicted on federal obstruction of justice charges arising from the government's investigation of Enron Corporation. On June 15, 2002, a jury in Houston, Texas found Arthur Andersen guilty of these federal obstruction of justice charges. In light of the jury verdict and the underlying events, Arthur Andersen has informed the Securities and Exchange Commission that it will cease practicing before the Securities and Exchange Commission by August 31, 2002, unless the Securities and Exchange Commission determines another date is appropriate. A substantial number of Arthur Andersen LLP's personnel have already left the firm, including the individuals responsible for auditing Genomic Solutions' audited consolidated financial statements included in this proxy statement and prospectus, and substantially all remaining personnel are expected to do so in the near future. Because it is unlikely that Arthur Andersen LLP will survive, you are unlikely to be able to exercise effective remedies or collect judgments against them. In addition, Arthur Andersen LLP has not consented to the inclusion of their report in this proxy statement and prospectus, and the requirement to file their consent has been dispensed with in reliance on Rule 437a under the Securities Act. Because Arthur Andersen LLP has not consented to the inclusion of their report in this prospectus, you will not be able to recover against Arthur Andersen LLP under Section 11 of the Securities Act for any untrue statement of a material fact contained in the consolidated financial statements audited by Arthur Andersen LLP or any omissions to state a material fact required to be stated in those consolidated financial statements.

Moreover, as a public company, Genomic Solutions is required to file with the Securities and Exchange Commission periodic consolidated financial statements audited or reviewed by an independent public accountant. The Securities and Exchange Commission has said that it will continue accepting financial statements audited by Arthur Andersen LLP on an interim basis without a reissued audit report so long as a reasonable effort is made to have Arthur Andersen LLP reissue its reports and to obtain a manually signed accountant's report from Arthur Andersen LLP. Arthur Andersen LLP is no longer able to reissue its audit reports on Genomic Solutions because both the partner and the audit manager who were assigned to Genomic Solutions' account have left the firm. In addition, Arthur Andersen LLP is unable to perform procedures to assure the continued accuracy of its report on Genomic Solutions' audited consolidated financial statements incorporated by reference in this proxy statement and prospectus. Arthur Andersen LLP will also be unable to perform such procedures or to provide other information or documents that would customarily be received by Genomic Solutions or underwriters in connection with financings or other transactions, including consents and "comfort" letters. As a result, Genomic Solutions may encounter delays, additional expense and other difficulties in future financings. Any resulting delay in accessing or inability to access the public capital markets could have a material adverse effect on Genomic Solutions.

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**CAUTIONARY STATEMENTS REGARDING FORWARD-LOOKING STATEMENTS IN THIS PROXY STATEMENT AND PROSPECTUS**

This proxy statement and prospectus and the documents incorporated by reference into this proxy statement and prospectus contain forward-looking statements about Harvard Bioscience within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended. Statements about Harvard Bioscience containing the words "believes," "anticipates," "estimates," "expects" and words of similar import, constitute forward-looking statements that involve risks and uncertainties. Such statements are based on current expectations and are subject to risks, uncertainties and changes in condition, significance, value and effect, including those discussed in the section entitled "Risk Factors" beginning on page 21 of this proxy statement and prospectus, and reports filed by Harvard Bioscience with the Securities and Exchange Commission, specifically forms 8-K, 10-K and 10-Q. Such risks, uncertainties and changes in condition, significance, value and effect could cause Harvard Bioscience's actual results to differ materially from those anticipated events. In evaluating the merger agreement and the merger, you should carefully consider the discussion of risks and uncertainties discussed in the section entitled "Risk Factors" beginning on page 21 of this proxy statement and prospectus.

This proxy statement and prospectus also contains forward-looking statements about Genomic Solutions, Genomic Solutions' financial condition, plans, objectives, future performance, results of operations and business. Words such as "anticipates," "expects," "intends," "plans," "believes," "seeks," "estimates," "will," "may," "should," "would," "projects," "predicts," "continues" and similar expressions or the negative of these terms identify these forward-looking statements. This proxy statement and prospectus also includes forward-looking statements about the consummation and anticipated timing of the merger, the actual conversion ratio for Genomic Solutions common stock in the merger and the tax-free nature of the merger.

Although Genomic Solutions believes that its plans, intentions and expectations as reflected in or suggested by these forward-looking statements are reasonable, it can give no assurance that the plans, intentions or expectations will be achieved. Genomic Solutions stockholders are cautioned that all forward-looking statements involve risks and uncertainties and actual results may differ materially from those discussed as a result of various risk factors described in the section entitled "Risk Factors Risks Related to Genomic Solutions" beginning on page 34 of this proxy statement and prospectus. Listed below and discussed elsewhere in this proxy statement and prospectus are some important risks, uncertainties and contingencies which could cause Genomic Solutions' actual results, performances or achievements to be materially different from the forward-looking statements made in this proxy statement and prospectus, particularly if the merger with Harvard Bioscience is not completed. These risks, uncertainties and contingencies include, but are not limited to, the following:

anticipated revenues and expenses;

possible price competition and erosion;

expansion into new markets;

future sales mix;

gross margins;

customers;

future developments involving certain investments;

future availability of financings; and

the receipt of stockholder and other approvals of the merger with Harvard Bioscience.

In addition, events may occur in the future that Genomic Solutions is not able to accurately predict or control and that may cause actual results to differ materially from the expectations described in these forward-looking statements.

Readers should not place undue reliance on Genomic Solutions' forward-looking statements contained in this proxy statement and prospectus. These forward-looking statements speak only as of the date on which the statements were made. In evaluating forward-looking statements, you should consider these risks and uncertainties, together with the other risks described from time to time in Genomic Solutions' reports and documents filed with the Securities and Exchange Commission.

### **THE SPECIAL MEETING OF GENOMIC SOLUTIONS STOCKHOLDERS**

Genomic Solutions is furnishing this proxy statement and prospectus to all stockholders of record of Genomic Solutions common stock in connection with the solicitation of proxies by the Genomic Solutions board of directors for use at the special meeting of Genomic Solutions stockholders to be held on October 24, 2002, and at any adjournment or postponement of the special meeting. This proxy statement and prospectus also is being furnished by Harvard Bioscience to Genomic Solutions stockholders as a prospectus for Harvard Bioscience common stock to be issued in connection with the merger.

#### **Date, Time and Place of the Special Meeting**

The special meeting will be held at The Crowne Plaza Hotel, 610 Hilton Boulevard, Ann Arbor, Michigan 48108 on October 24, 2002, at 9:00 a.m., local time.

#### **Purpose of the Special Meeting**

At the special meeting, and any adjournment or postponement of the special meeting, Genomic Solutions stockholders will be asked:

1. to consider and vote upon a proposal to adopt and approve the merger agreement and approve the merger; and
2. to transact any other business that may properly come before the special meeting and any adjournment or postponement of the special meeting.

A copy of the merger agreement is attached to this proxy statement and prospectus as Annex A. Genomic Solutions stockholders are encouraged to read the merger agreement in its entirety and the other information contained in this proxy statement and prospectus carefully before deciding how to vote.

#### **Record Date**

The Genomic Solutions board of directors has fixed the close of business on September 19, 2002, as the record date for determination of Genomic Solutions stockholders entitled to notice of and to vote at the special meeting.

#### **Vote Required for Adoption and Approval of the Merger Agreement and Approval of the Merger**

As a condition to completion of the merger, the Delaware General Corporation Law and the merger agreement require that the holders of a majority of the outstanding voting shares of Genomic Solutions as of the record date must vote to adopt and approve the merger agreement and approve the merger. Each share of Genomic Solutions common stock entitles the holder to one vote per share with respect to the merger agreement and the merger. There are no other voting securities of Genomic Solutions.

As of the close of business on September 16, 2002, the most recent practicable date prior to the date of this proxy statement and prospectus, 31,257,198 shares of Genomic Solutions common stock were outstanding, and held by approximately 141 stockholders of record.

As of the close of business on September 16, 2002, the most recent practicable date prior to the date of this proxy statement and prospectus, directors and executive officers of Genomic Solutions (and their respective affiliates) collectively owned approximately 38% of the outstanding shares of Genomic Solutions common stock entitled to vote at the special meeting on the merger agreement and the merger.

All of Genomic Solutions' directors and certain of its affiliates and executive officers have entered into voting agreements and delivered irrevocable proxies, pursuant to which they have agreed to vote their Genomic Solutions shares in favor of adoption and approval of the merger agreement and approval of the merger, in favor of any matter that would be expected to facilitate the merger, and against any matter that would be expected to result in a breach by Genomic Solutions of the merger agreement or that would be expected to result in Genomic Solutions' obligations under the merger agreement not being fulfilled. At the close of business on September 16, 2002, these directors, officers and affiliates collectively owned approximately 38% of the outstanding shares of Genomic Solutions common stock entitled to vote at the special meeting, all of which are subject to the voting agreements.

#### **Quorum, Abstentions and Broker Non-Votes**

A majority of all voting shares of Genomic Solutions issued and outstanding as of the record date, represented in person or by proxy, constitutes a quorum for the transaction of business at the special meeting. Genomic Solutions has appointed Steven J. Richvalsky, Genomic Solutions' Chief Financial Officer, to function as the inspector of elections of the special meeting. The inspector of elections will ascertain whether a quorum is present, tabulate votes and determine the voting results on all matters presented to Genomic Solutions stockholders at the special meeting. If a quorum is not obtained, or fewer voting shares of Genomic Solutions are voted for the adoption and approval of the merger agreement and the approval of the merger than a majority of the voting shares eligible to vote at the special meeting in person or by proxy, the special meeting may be postponed or adjourned for the purpose of allowing additional time for obtaining additional proxies or votes. At any subsequent reconvening of the special meeting, all proxies will be voted in the same manner as the proxies would have been voted at the original convening of the special meeting, except for any proxies that have been effectively revoked or withdrawn prior to the subsequent reconvening of the special meeting.

If you submit a proxy that indicates an abstention from voting on all matters presented at the special meeting, your shares will be counted as present for the purpose of determining the existence of a quorum at the special meeting, but will not be voted on any matter presented at the special meeting. Consequently, your abstention will have the same effect as a vote against the proposal to adopt and approve the merger agreement and to approve the merger. In addition, the failure of a Genomic Solutions stockholder to return a proxy will have the effect of a vote against the proposal to adopt and approve the merger agreement and to approve the merger.

Under the rules that govern brokers who have record ownership of shares that are held in "street name" for their clients who are the beneficial owners of the shares, brokers have discretion to vote these shares on routine matters but not on non-routine matters. The adoption and approval of the merger agreement and the approval of the merger at the special meeting are not considered routine matters. Accordingly, brokers will not have discretionary voting authority to vote your shares at the special meeting. A "broker non-vote" occurs when brokers do not have discretionary voting authority and have not received instructions from the beneficial owners of the shares. At the special meeting, broker non-votes will be counted for the purpose of determining the presence of a quorum but will not be counted for the purpose of determining the number of votes cast on the merger agreement and the merger. Accordingly, at the special meeting, broker non-votes will have the same effect as a vote against the proposal to adopt and approve the merger agreement and to approve the merger. Consequently, **Genomic Solutions stockholders are urged to return the enclosed proxy card marked to indicate their vote.**

#### **Solicitation of Proxies and Expenses**

Genomic Solutions will bear its own expenses in connection with the solicitation of proxies for the special meeting, except that Genomic Solutions will pay one-half of all costs and expenses incurred in

connection with the printing and mailing of this proxy statement and prospectus, and Harvard Bioscience will pay the other half of those costs and expenses.

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In addition to solicitation by mail, directors, officers and employees of Genomic Solutions may solicit proxies from stockholders by telephone, facsimile, e-mail or in person. No additional compensation will be paid to these individuals for those services. Some of these individuals may have interests in the merger that are different from, or in addition to, the interests of Genomic Solutions stockholders generally. For more information regarding these interests, see the section entitled "The Merger and Related Transactions Consideration of the Merger by Genomic Solutions' Board of Directors Interests of Genomic Solutions' Directors and Officers in the Merger" beginning on page 64 of this proxy statement and prospectus. Genomic Solutions may retain outside agencies for the purpose of soliciting proxies, in which case Genomic Solutions will pay the fees and expenses of those agencies. Record holders such as brokerage houses, nominees, fiduciaries and other custodians will be requested to forward soliciting materials to beneficial owners and to request authority for the exercise of proxies, and, upon the request of such record holders, they will be reimbursed for their reasonable expenses incurred in sending proxy materials to beneficial owners, which Genomic Solutions anticipates will not exceed \$1,000 in the aggregate.

### **Voting of Proxies at the Special Meeting and Revocation of Proxies**

Genomic Solutions requests that all holders of Genomic Solutions common stock on the record date complete, date and sign the accompanying proxy card and promptly return it in the accompanying envelope or otherwise mail it to Genomic Solutions. Brokers holding voting shares in "street name" may vote the shares only if the beneficial owner provides instructions on how to vote. Brokers will provide directions to beneficial owners on how to instruct your broker to vote the shares. Please note, however, that if the holder of record of your shares is your broker, bank or other nominee and you wish to vote at the special meeting, you must bring a letter from the broker, bank or other nominee confirming that you are the beneficial owner of the shares. All properly executed proxies that Genomic Solutions receives prior to the vote at the special meeting, and that are not revoked, will be voted in accordance with the instructions indicated on the proxy card. If no direction is indicated on such proxies, such proxies will be voted in favor of adoption and approval of the merger agreement and approval of the merger (except for broker non-votes, which are discussed above).

A Genomic Solutions stockholder may revoke a previously submitted proxy at any time prior to its use by:

delivering to the Secretary of Genomic Solutions a later-dated signed notice of revocation;

delivering to the Secretary of Genomic Solutions a later-dated, signed proxy (which will automatically replace any earlier dated proxy card that you returned); or

attending the special meeting and voting in person.

Attendance at the special meeting does not in itself constitute the revocation of a previously submitted proxy.

If your shares are held in "street name," your broker or nominee may permit you to vote by telephone or electronically. Please check your proxy card or contact your broker or nominee to determine whether either of these methods of voting is available to you.

### **Dissenters' Rights of Appraisal**

Under Section 262 of the Delaware General Corporation Law, holders of Genomic Solutions common stock are entitled to dissent from the merger, request a judicial appraisal of the fair value of their shares of Genomic Solutions common stock and, if the merger is consummated and all

requirements of Section 262 are satisfied by Genomic Solutions stockholders seeking to exercise dissenters' rights, to receive payment equal to the fair value of their shares of Genomic Solutions common stock, as determined in the manner set forth under Section 262. Failure to strictly follow the procedures set forth in Section 262 on a timely basis may result in a termination or loss of appraisal rights.

Under Section 262, not less than 20 days prior to the special meeting of Genomic Solutions stockholders to be held on October 24, 2002, at which the merger agreement and the merger will be considered and voted upon, Genomic Solutions must notify each of its stockholders entitled to appraisal rights as of the record date of the special meeting that appraisal rights are available, and include in that notice a copy of Section 262. This proxy statement and prospectus constitutes such notice to the Genomic Solutions stockholders and includes a copy of Section 262 which is attached as Annex C to this proxy statement and prospectus.



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Dissenting stockholders who do not wish to accept the merger consideration and who wish to assert their rights to an appraisal of their shares of Genomic Solutions common stock must so notify Genomic Solutions before the taking of the vote on the merger agreement and the merger, by delivering a written demand for appraisal of his or her shares of Genomic Solutions common stock to: Genomic Solutions Inc., 4355 Varsity Drive, Suite E, Ann Arbor, Michigan 48108, Attention: Gary A. Kendra, Secretary. Any written notice from a dissenting stockholder wishing to demand appraisal must be executed by or on behalf of the stockholder of record and must reasonably inform Genomic Solutions of the identity of the stockholder of record and his or her intention to demand appraisal of his or her shares of Genomic Solutions common stock. A proxy or vote against the merger agreement and the merger will not constitute this demand.

Under Section 262, the procedures to obtain appraisal rights must be carried out by and in the name of holders of record of shares of Genomic Solutions common stock. Stockholders who are the beneficial but not the record owners of shares of Genomic Solutions common stock (such as shares held by a broker in "street name" rather than in the name of the beneficial owner thereof) and who wish to exercise such appraisal rights are advised to consult promptly with the record owners as to the timely exercise of appraisal rights and to cause the record owner to make the appropriate demand.

Within 120 days of the effective time of the merger, any dissenting stockholder who has complied with the requirements of Section 262 and who 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 dissenting stockholders of Genomic Solutions. If a petition for an appraisal is timely filed, the Court of Chancery will hold a hearing, determine which stockholders are entitled to appraisal rights and appraise the shares of Genomic Solutions common stock owned by those stockholders, determining the fair value of their 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.

Any dissenting stockholder who has duly demanded an appraisal in compliance with Section 262 will not, after the effective time, be entitled to vote the shares of Genomic Solutions common stock subject to the demand for appraisal for any purpose. The shares of Genomic Solutions common stock subject to the demand for appraisal will not be entitled to dividends or other distributions other than those, if any, payable or deemed to be payable to stockholders of record as of a date prior to the effective time.

For a more detailed discussion of the appraisal rights of Genomic Solutions stockholders and Section 262, see the section entitled "The Merger and Related Transactions Dissenters' Rights of Appraisal" beginning on page 87 of this proxy statement and prospectus and Section 262 of the Delaware General Corporation Law, a copy of which is attached as Annex C to this proxy statement and prospectus.

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### Other Matters to be Voted on

Genomic Solutions knows of no matters that will be presented for consideration at the special meeting other than those stated in this proxy statement and prospectus. However, if any other matters do properly come before the special meeting, the proxy holders will vote proxies in accordance with their best judgment regarding such matters.

### Recommendation of Genomic Solutions' Board of Directors

The Genomic Solutions board of directors has unanimously determined that the merger is advisable, in the best interests of Genomic Solutions stockholders and on terms that are fair to the stockholders of Genomic Solutions. **Accordingly, the Genomic Solutions board of directors has unanimously approved the merger agreement and the merger and recommends that stockholders vote FOR adoption and approval of the merger agreement and approval of the merger.** In considering such recommendation, Genomic Solutions stockholders should be aware that some Genomic Solutions directors and officers have interests in the merger that are different from, or in addition to, those of Genomic Solutions stockholders. For more information about these interests, see the section entitled "The Merger and Related Transactions Consideration of the Merger by Genomic Solutions' Board of Directors Interests of Genomic Solutions' Directors and Officers in the Merger" beginning on page 64 of this proxy statement and prospectus.

**The matters to be considered at the special meeting are of great importance to the stockholders of Genomic Solutions. Accordingly, you are urged to read and carefully consider the information presented in this proxy statement and prospectus, and to complete, date, sign and promptly return the enclosed proxy card in the enclosed postage-paid envelope.**

**Stockholders should not send any stock certificates with their proxy cards. A transmittal form with instructions for the surrender of Genomic Solutions common stock certificates will be mailed to you promptly following completion of the merger. If you send your stock certificates to either Harvard Bioscience or Genomic Solutions, neither Harvard Bioscience nor Genomic Solutions will assume the risk of loss. For more information regarding the procedures for exchanging Genomic Solutions stock certificates for Harvard Bioscience**

stock certificates and cash, see the section entitled "The Merger and Related Transactions The Merger Agreement Exchange of Genomic Solutions Stock Certificates For Harvard Bioscience Stock Certificates and Cash" beginning on page 69 of this proxy statement and prospectus.

## THE MERGER AND RELATED TRANSACTIONS

The following is a description of the material aspects of the merger and related transactions, including the merger agreement and certain other agreements entered into in connection with the merger agreement. While we believe that the following description covers the material terms of the merger, the merger agreement and the related transactions and agreements, the description may not contain all of the information that is important to you. You should read this entire proxy statement and prospectus and the other documents we refer to carefully for a more complete understanding of the merger and the related transactions. In particular, the following summary of the merger agreement is not complete and is qualified in its entirety by reference to the copy of the merger agreement attached to this proxy statement and prospectus as Annex A and incorporated by reference into this proxy statement and prospectus. You should read the merger agreement carefully and in its entirety for a complete understanding of the terms of the merger and related transactions.

### Background of the Merger

The respective management groups of Harvard Bioscience and Genomic Solutions review, on a regular basis, the strategic focus of their companies in light of the rapidly changing competitive environment of the biotechnology industry. An objective of these strategic reviews is to identify opportunities to enhance stockholder value.

On February 7, 2002, the Genomic Solutions board of directors held an informal strategy meeting in Chicago. Among the discussion items were the difficult financial markets, macroeconomic conditions and industry specific conditions, all of which seemed to point to potential consolidation in the life sciences tools industry. The board discussed seeking a merger partner to dramatically improve critical mass as a strong possibility to improve stockholder value.

At the Genomic Solutions quarterly board of directors meeting on March 6, 2002, Edward Lagerstrom, Scott Beardsley and C. Jason Moran of U.S. Bancorp Piper Jaffray ("Piper Jaffray") made a presentation to the board. Piper Jaffray advised the board on market conditions in the life sciences tools industry and presented a list of candidates that potentially would be a good strategic fit for the company in a merger or sale transaction.

On April 16, 2002, the Genomic Solutions board of directors met telephonically to discuss engaging a financial advisor. At that meeting, the Genomic Solutions board of directors established a committee of the board consisting of Jeffrey S. Williams, Genomic Solutions' President and Chief Executive Officer, Damion E. Wicker and Robert G. Shepler to identify possible candidates and make a recommendation to the full board regarding the engagement of a financial advisor.

On April 17, 2002, Chane Graziano, Harvard Bioscience's Chief Executive Officer, and David Green, Harvard Bioscience's President, met with Mr. Lagerstrom of Piper Jaffray to discuss strategic acquisitions of other companies engaged in the life sciences instrumentation fields. Mr. Lagerstrom presented Harvard Bioscience with a list of companies, which included Genomic Solutions. Harvard Bioscience management asked Mr. Lagerstrom to arrange a meeting with the management of Genomic Solutions in order to learn more about the company.

Also on April 17, 2002, the Genomic Solutions board committee met telephonically to discuss possible candidates to serve as Genomic Solutions' financial advisor. The board committee determined that only two candidates had the requisite familiarity with the industry and the Genomic Solutions business.

On April 22, 2002, Messrs. Graziano and Green visited Genomic Solutions' headquarters in Ann Arbor, Michigan. On this visit, the parties entered into a mutual confidentiality agreement to permit the exchange of confidential information for the purpose of evaluating the merits of a possible acquisition of Genomic Solutions by Harvard Bioscience. Mr. Williams discussed with Messrs. Graziano

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and Green the business of Genomic Solutions and its financial prospects and business model. Also in attendance at the discussion from Genomic Solutions were Steven J. Richvalsky, Executive Vice President and Chief Financial Officer, and Andrew A. Jakimcius, Executive Vice President Operations. Mr. Green presented an overview of Harvard Bioscience. The meeting was introductory in nature and the parties generally discussed possible joint opportunities. The parties agreed to have further discussions.

On April 29, 2002, the Genomic Solutions board committee met telephonically to interview the two financial advisor candidates, one of which was Piper Jaffray. At that meeting, the committee decided to recommend engaging Piper Jaffray.

At the Genomic Solutions quarterly board of directors meeting on May 1, 2002, Mr. Lagerstrom and Robert DeSutter of Piper Jaffray gave a presentation on potential strategic partners for Genomic Solutions, including those companies engaged in the life sciences field that might be interested in acquiring Genomic Solutions. Because of the prior contact with Harvard Bioscience, Messrs. Lagerstrom and DeSutter provided an overview of Harvard Bioscience in their presentation. They also identified 13 other potential investors in, or acquirors of, Genomic Solutions. Piper Jaffray also discussed several other companies identified by Mr. Williams and the management team. At that meeting, the Genomic Solutions board of directors agreed to retain Piper Jaffray to serve as its financial advisor based upon the board committee's recommendation. The Genomic Solutions board of directors authorized Piper Jaffray to contact the most likely candidates to explore a possible transaction. The board of directors also authorized the engagement of JRW Technology, Inc. to assess Genomic Solutions' business and operations and to recommend alternatives for achieving profitability. Genomic Solutions subsequently entered into a consulting agreement with JRW.

On May 2, 2002, Messrs. Williams and Graziano met telephonically to discuss a potential combination of Harvard Bioscience and Genomic Solutions. Mr. Williams agreed to provide certain business and financial information to Mr. Graziano regarding Genomic Solutions and its operations. That day, Mr. Williams sent to Harvard Bioscience various materials including those which described Genomic Solutions' business and financial position, its products, intellectual property, corporate structure and current financial prospects. On May 3, 2002, Mr. Williams sent additional historical financial information on Genomic Solutions to Messrs. Graziano and Green.

On May 7, 2002, Messrs. Graziano and Green visited the offices of Genomic Solutions' subsidiary, Cartesian Technologies, Inc., in Irvine, California and met with Thomas C. Tisone, Ph.D., and the senior management team at Cartesian. Among other things, the parties discussed possible market synergies between the two companies. Also on May 7, Susan M. Luscinski, Chief Financial Officer of Harvard Bioscience, sent a preliminary due diligence request list to Mr. Williams.

On May 10, 2002, Gary A. Kendra, Genomic Solutions' Executive Vice President and General Counsel, sent certain preliminary due diligence information to Ms. Luscinski.

On May 14 and 15, 2002, Ms. Luscinski visited Genomic Solutions' headquarters in Ann Arbor, Michigan to gain an overview of Genomic Solutions' financial condition and accounting and financial systems. Ms. Luscinski met with Messrs. Williams, Richvalsky and Kendra to discuss the business and operations of the company. Ms. Luscinski also reviewed certain contracts and agreements to which Genomic Solutions was a party and continued to work on preliminary due diligence concerning Genomic Solutions.

On May 15, 2002, Messrs. Williams and Lagerstrom visited Harvard Bioscience's headquarters located in Holliston, Massachusetts. On that visit, Mr. Green gave a presentation about Harvard Bioscience's business and financial prospects and business model.

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On May 17, 2002, Mr. Williams wrote Messrs. Graziano and Green a letter suggesting that a combination of the businesses could have strategic value and benefit the stockholders of Genomic Solutions and Harvard Bioscience and that, in Mr. Williams' view, further discussions should occur.

During May and June 2002, Piper Jaffray had communications with 10 possible acquirors, including Harvard Bioscience. In addition to Harvard Bioscience, Piper Jaffray received a verbal indication of interest from only one other company. After conducting preliminary due diligence and receiving a management presentation, the other company decided not to pursue a potential transaction.

On May 22, 2002, Mr. Williams met telephonically with a representative of White Pines Ventures, LLC, a stockholder of Genomic Solutions, to request that White Pines assist JRW in the performance of its consulting services to Genomic Solutions. On May 29, 2002, by letter to Mr. Kendra, White Pines agreed to render such assistance and to be bound by all of the terms and conditions of the May 22, 2002, consulting agreement between JRW and Genomic Solutions.

On May 28, 2002, Messrs. Williams and Green conferred by telephone and discussed potential terms of a transaction.

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During the first week of June, Messrs. Graziano and Green and Ms. Luscinski engaged in numerous discussions amongst themselves concerning the terms of an offer to acquire Genomic Solutions. Messrs. Graziano and Green discussed preliminary terms of a business combination transaction with Genomic Solutions' financial advisor. Also during this period, Mr. Green spoke with Messrs. Williams and Richvalsky regarding the recent financial and operating results of Genomic Solutions.

On June 5, 2002, Mr. Graziano visited Genomic Solutions' facilities in the United Kingdom.

On June 7, 2002, Messrs. Graziano and Green verbally indicated to Mr. Lagerstrom that they were prepared to negotiate the acquisition of Genomic Solutions for \$10,000,000 cash plus 3,000,000 shares of Harvard Bioscience common stock. On June 11, 2002, Mr. Green provided Messrs. Williams and Lagerstrom with a summary of the business rationale for Harvard Bioscience's proposal to acquire Genomic Solutions at this price. The proposal took into account Genomic Solutions' intention to implement a cost reduction restructuring plan prior to the time of the transaction. Mr. Lagerstrom subsequently informed Harvard Bioscience that this offer was not acceptable to Genomic Solutions.

Subsequently, Messrs. Green and Lagerstrom engaged in several discussions regarding the terms of the proposal. On June 20, 2002, the Genomic Solutions board of directors met to review the proposed terms of the acquisition by Harvard Bioscience. Messrs. Green and Graziano gave a telephonic presentation to the board on the potential synergies between the two companies and the reasons a transaction with Harvard Bioscience would be in the interests of Genomic Solutions' stockholders. The board took no action at the meeting other than to authorize Mr. Williams to continue to negotiate with Harvard Bioscience to maximize the amount of consideration to be received in any transaction with Harvard Bioscience.

After the board meeting, on the afternoon of June 20, 2002, Messrs. Lagerstrom, Williams, Graziano and Green engaged in further negotiations regarding the consideration to be paid in the proposed transaction. During these discussions, Messrs. Graziano and Green proposed a purchase price of 3,200,000 shares of Harvard Bioscience common stock and \$10,000,000 cash. On the evening of June 20, 2002, Mr. Williams advised the Genomic Solutions board of directors of this proposal and provided the directors with the general terms of the proposed transaction.

As a result of discussions on June 20 and 21, 2002, Messrs. Graziano, Green and Williams reached a tentative agreement on the principal economic terms of the proposed transaction. Thereafter, management of Genomic Solutions and Harvard Bioscience and their financial and legal advisors undertook a due diligence review of the respective companies and businesses.

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On June 24, 2002, Messrs. Williams, Kendra and Richvalsky traveled to Massachusetts and attended a dinner with Messrs. Graziano and Green and Ms. Luscinski and Mr. Lagerstrom. On June 25, 2002, Messrs. Williams, Kendra and Richvalsky visited Harvard Bioscience at its headquarters in Holliston, Massachusetts. There they met with Messrs. Graziano and Green and Ms. Luscinski to discuss various due diligence issues and business items. Messrs. Kendra and Richvalsky remained in Holliston and continued due diligence on June 26, 2002.

On June 25, 2002, counsel to Genomic Solutions sent Harvard Bioscience and its counsel a draft merger agreement. Counsel to Harvard Bioscience indicated that they would provide an initial draft merger agreement and subsequently commenced preparation of the merger agreement, voting agreements and ancillary documents for the proposed transaction.

On June 26, 2002, Harvard Bioscience and Genomic Solutions entered into an exclusivity letter, pursuant to which Genomic Solutions agreed to cease all acquisition negotiations with all other parties and to negotiate exclusively with Harvard Bioscience until the close of business on July 12, 2002.

On June 28, 2002, the Genomic Solutions board of directors met telephonically to discuss the status of the negotiations with Harvard Bioscience. Management of Genomic Solutions advised the board on principal negotiation issues, including the proposed structure of the transaction and preliminary due diligence issues.

During the period from June 28 through July 15, 2002, members of Harvard Bioscience's management team and representatives of Goodwin Procter LLP, Harvard Bioscience's legal counsel, and KPMG LLP, Harvard Bioscience's independent auditors, conducted business, financial, accounting, tax and legal due diligence and participated in discussions with Genomic Solutions, its legal counsel and management team on various issues. Also during this period, third party representatives of Harvard Bioscience and Genomic Solutions separately talked with select customers of Harvard Bioscience and Genomic Solutions.

On July 2, 2002, the Genomic Solutions board of directors met telephonically for an update on the status of negotiations with Harvard Bioscience and on-going due diligence. Also on July 2, 2002, Harvard Bioscience's counsel circulated their first draft of the proposed merger

agreement between the parties.

On July 3, 2002, Mr. Graziano informed Messrs. Lagerstrom and Williams that, based on Harvard Bioscience's due diligence review of Genomic Solutions, the economic terms of the proposed transaction needed to be revisited. After a lengthy discussion, Harvard Bioscience proposed a purchase price of 3,200,000 shares of Harvard Bioscience common stock and \$9,000,000 cash.

On July 8, 2002, the board of directors of Genomic Solutions met to review the most recent proposal by Harvard Bioscience. At the meeting, the board of Genomic Solutions discussed with Piper Jaffray certain financial aspects of the proposed transaction. Genomic Solutions' executive team reviewed its due diligence findings to date and Genomic Solutions' legal counsel commented on the initial draft of the definitive merger agreement.

On July 11, 2002 the board of directors of Genomic Solutions met again telephonically to review the status of the Harvard Bioscience transaction and discuss the progress of the due diligence and negotiations on the definitive agreement. At the meeting, the board discussed with Genomic Solutions' legal counsel and its financial advisor aspects of the proposed transaction. Legal counsel reviewed the terms of the voting agreements to which Genomic Solutions board members would be a party and discussed the proposed treatment of stock options. Piper Jaffray gave a summary of its financial analysis of the transaction terms. In addition, Genomic Solutions' executive team and legal counsel reviewed their due diligence findings. At the invitation of the Genomic Solutions board, Messrs. Graziano and Green also briefly telephonically joined the board meeting to express their views on the progress of the negotiations and the need to extend the exclusivity letter. After extensive

discussion of the terms of the definitive agreement, the board expressed concern that the draft of the definitive agreement contained too many conditions to closing that if not satisfied would permit Harvard Bioscience to not close the transaction. The directors expressed their inclination to not approve the transaction unless significant progress could be made in reducing the number of conditions to closing. As such, the board agreed to extend the exclusivity letter only until July 15, 2002. The board established a committee of the board consisting of Messrs. Williams and Shepler and Daniel J. Mitchell to review the draft of the definitive agreement to be provided on July 13, 2002 and determine whether enough progress had been made to warrant an extension of the term of the exclusivity letter through July 17, 2002. The board authorized the committee to extend the exclusivity letter through that date only if all three members agreed that enough progress had been made to justify the extension in light of the board's concern.

On July 12, 2002, Harvard Bioscience and Genomic Solutions executed an extension of the exclusivity letter until 12:01 p.m. on July 15, 2002.

On July 15, 2002, the board of directors of Harvard Bioscience held a meeting at which the directors discussed the terms of the proposed transaction between Harvard Bioscience and Genomic Solutions and the rationale for the transaction. At the meeting, the board determined that it was advisable and in the best interests of Harvard Bioscience and its stockholders to enter into the merger agreement and authorized Harvard Bioscience's management to enter into the merger agreement and related documents.

Also on July 15, 2002, Mr. Williams met telephonically with each of Messrs. Shepler and Mitchell separately to discuss the July 13, 2002 draft of the definitive agreement. Genomic Solutions' outside legal counsel was present during each of the calls to discuss the progress made on the negotiation of the definitive agreement. Each of the directors agreed that management and legal counsel had made significant progress on reducing the number and significance of the closing conditions in the definitive agreement. As a result, Mr. Williams, on behalf of Genomic Solutions, executed an extension of the exclusivity letter with Harvard Bioscience until midnight on July 17, 2002.

On July 16, 2002, the Genomic Solutions board of directors met to consider the final terms of the merger. At the meeting, Piper Jaffray presented summaries of financial analyses it had conducted and delivered and discussed its written fairness opinion regarding the merger consideration. Counsel for Genomic Solutions discussed with the board the legal due diligence review of Harvard Bioscience, presented an analysis of the legal and regulatory aspects of the proposed transaction, reviewed the fiduciary obligations of the Genomic Solutions directors and described the terms of the merger agreement and related documents, including Mr. Williams' employment agreement with Harvard Bioscience. The directors discussed their views of the presentations and the transaction, including the potential advantages and risks associated with the merger. After extensive discussion, the board unanimously determined that the merger was advisable, in the best interests of the Genomic Solutions stockholders, and on terms that are fair to the stockholders. The board unanimously approved the merger and the merger agreement and recommended that stockholders vote their shares in favor of adopting and approving the merger agreement and approving the merger, and further authorized the officers to execute and deliver the merger agreement to Harvard Bioscience.

After the close of business on July 17, 2002, the parties executed the merger agreement, certain voting agreements and an employment agreement for Mr. Williams and issued a joint press release announcing the transaction before the opening of business on July 18, 2002.

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**Consideration of the Merger by Genomic Solutions' Board of Directors***Genomic Solutions' Reasons for the Merger*

Genomic Solutions' board of directors consulted with senior management and Genomic Solutions' financial and legal advisors and considered a number of factors, including those set forth below, in reaching its decision to approve the merger agreement and the transactions contemplated by the merger agreement, and to **recommend that Genomic Solutions' stockholders vote FOR adoption and approval of the merger agreement and approval of the merger.**

The following discussion of Genomic Solutions' reasons for the merger contains a number of forward-looking statements that reflect the current views of Genomic Solutions with respect to future events that may have an effect on its future financial performance. Forward-looking statements are subject to risks and uncertainties. Actual results and outcomes may differ materially from the results and outcomes discussed in the forward-looking statements. Cautionary statements that identify important factors that could cause or contribute to differences in results and outcomes include those discussed in the section entitled "Cautionary Statements Regarding Forward-Looking Statements in this Proxy Statement and Prospectus" beginning on page 44 of this proxy statement and prospectus, and the section entitled "Risk Factors" beginning on page 21 of this proxy statement and prospectus.

*Merger Consideration.* In addition to the analyses and presentations by Genomic Solutions' financial advisor summarized in the section entitled "Opinion of Genomic Solutions' Financial Advisor" beginning on page 58 of this proxy statement and prospectus, the Genomic Solutions board of directors looked at the premium represented by the consideration to be offered to the holders of Genomic Solutions common stock in the merger, based upon the same day price of Harvard Bioscience common stock and cash consideration compared to the price of Genomic Solutions common stock of \$0.47 on July 15, 2002 (an 82.3% premium), \$0.65 on July 8, 2002 (a 31.8% premium), and \$0.70 on June 17, 2002 (a 22.4% premium). Genomic Solutions' board of directors also considered the ability of Genomic Solutions' stockholders to continue to participate in the growth of the combined company since a portion of the consideration to be received by Genomic Solutions' stockholders consists of shares of Harvard Bioscience common stock.

*Advice from Genomic Solutions' Financial Advisor.* Genomic Solutions' board of directors considered the detailed presentations made by Piper Jaffray, Genomic Solutions' financial advisor, with respect to the proposed consideration to be offered to the holders of Genomic Solutions' common stock in the merger. The Genomic Solutions board also considered Piper Jaffray's oral opinion, which was subsequently confirmed in writing, that, as of the date of its opinion, the merger consideration set forth in the merger agreement was fair, from a financial point of view, to the holders of Genomic Solutions common stock. The full text of this opinion is attached to this proxy statement and prospectus as Annex B.

*Review of Prospects in Remaining Independent.* Genomic Solutions' board of directors considered Genomic Solutions' financial condition, results of operations and business and earnings prospects if it were to remain an independent entity.

*Effect on Employees and Facilities.* The board of directors of Genomic Solutions considered the possible effect of the merger on the current facilities and employees of Genomic Solutions.

*Certain Terms of the Merger Agreement Relating to Alternative Transactions.* In evaluating the adequacy of the consideration to be received, the Genomic Solutions board of directors determined that the merger agreement did not preclude a third party offer for Genomic Solutions. In particular, in connection with an acquisition proposal more favorable from a financial point of view than the merger, subject to restrictions discussed more fully in the section entitled "The Merger Agreement and Related Transactions The Merger Agreement" beginning on page 67 of this proxy statement and prospectus,

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the merger agreement permits the Genomic Solutions board of directors, if required by its fiduciary duties, to:

provide information to, and engage in discussion or negotiations with, a third party that makes an unsolicited superior proposal (as defined in the merger agreement); and

withdraw its recommendation that the stockholders vote in favor of adopting and approving the merger agreement and approving the merger.

Genomic Solutions' board of directors also considered that the merger agreement:

permits Harvard Bioscience to terminate the merger agreement if the board of directors withdraws its recommendation in favor of the merger with Harvard Bioscience or recommends another proposal; and

requires Genomic Solutions to pay a termination fee to Harvard Bioscience if the merger agreement is terminated under some circumstances.

The Genomic Solutions board of directors noted that the termination payment provisions of the merger agreement could have the effect of discouraging alternative proposals for a business combination between Genomic Solutions and a third party. However, the board of directors concluded that the amount of the fee that Genomic Solutions may be obligated to pay, and the circumstances under which it may be payable, are typical for transactions of this size and type, are not likely to discourage any such proposals and were necessary to induce Harvard Bioscience to enter into the merger agreement.

*Limited Closing Conditions.* The Genomic Solutions board of directors considered the limited nature of the closing conditions included in the merger agreement, and the likelihood that the merger agreement would be adopted and approved and the merger approved by Genomic Solutions' stockholders.

*Realization of Liquidity.* The Genomic Solutions board of directors considered the recent relative illiquidity of Genomic Solutions' common stock. The Genomic Solutions board believes that some of this lack of liquidity is due to the absence of material market analyst coverage and the relatively small market capitalization of Genomic Solutions. By providing for the exchange of Genomic Solutions common stock for Harvard Bioscience common stock and cash, the merger may enable existing Genomic Solutions stockholders to experience the advantages of a more liquid investment, as Harvard Bioscience common stock has historically experienced higher average trading volumes than Genomic Solutions common stock.

The Genomic Solutions board also identified and considered a number of other factors in its deliberations concerning the merger, including:

risks associated with fluctuations in Harvard Bioscience's stock price prior to the merger;

the risk of disruption of sales momentum as a result of uncertainties created by the announcement of the merger;

the risk that the voting agreements may have the effect of discouraging alternative proposals for a business combination with another third party;

the payment that would be paid to Mr. Williams as a result of the merger;

the new employment agreement between Mr. Williams and the surviving corporation which becomes effective upon the closing of the merger and which includes a nomination for a seat on the board of directors of Harvard Bioscience;

the interests of the directors and officers that are different from, or in addition to, those of Genomic Solutions' stockholders generally, including the receipt of change in control payments under the employment agreements with certain executive officers of Genomic Solutions; and

other applicable risks described in the section of this proxy statement and prospectus entitled "Risk Factors" on page 21.

The Genomic Solutions board of directors believed that these risks and potential negative factors were outweighed by the potential benefits of the merger.

The foregoing discussion of the information and factors considered by Genomic Solutions' board of directors, while not exhaustive, includes the material factors considered by the board of directors. In view of the variety of factors considered in connection with its evaluation of the merger, Genomic Solutions' board of directors did not find it practicable to, and did not, quantify or otherwise assign relative or specific weight or values to any of these factors, and individual directors may have given different weights to different factors.

***Recommendation of Genomic Solutions' Board of Directors***

The Genomic Solutions board of directors has unanimously determined that the merger is advisable, in the best interests of Genomic Solutions stockholders and on terms that are fair to the stockholders of Genomic Solutions. **Accordingly, the Genomic Solutions board of directors has unanimously approved the merger agreement and the merger and recommends that stockholders vote FOR adoption and approval of the merger agreement and approval of the merger.**

***Opinion of Genomic Solutions' Financial Advisor***

Genomic Solutions retained U.S. Bancorp Piper Jaffray Inc. to act as its financial advisor and, if requested, to render to the board of directors of Genomic Solutions an opinion as to the fairness, from a financial point of view, of the consideration to be received by Genomic Solutions stockholders in the merger.

On July 16, 2002, Piper Jaffray delivered to the board of directors of Genomic Solutions its opinion, as of that date and based upon and subject to the assumptions, factors and limitations set forth in the written opinion and described below, that the merger consideration to be received by holders of Genomic Solutions common stock in the merger pursuant to the merger agreement was fair, from a financial point of view, to the holders of common stock of Genomic Solutions. A copy of Piper Jaffray's written opinion is attached to this proxy statement and prospectus as Annex B and is incorporated into this proxy statement and prospectus by reference.

While Piper Jaffray rendered its opinion and provided certain analyses to Genomic Solutions' board of directors, Piper Jaffray was not requested to and did not make any recommendation to Genomic Solutions' board of directors as to the specific form or amount of the consideration to be received by Genomic Solutions stockholders in the proposed merger, which was determined through negotiations between Genomic Solutions and Harvard Bioscience. Piper Jaffray's written opinion, which was directed to the Genomic Solutions board of directors, addresses only the fairness, from a financial point of view, of the merger consideration to be received by Genomic Solutions stockholders in the proposed merger, does not address Genomic Solutions' underlying business decision to proceed with or effect the merger, or the relative merits of the merger compared to any alternative business strategy or transaction in which Genomic Solutions might engage and does not constitute a recommendation to any Genomic Solutions stockholder as to how to vote in the merger.

In arriving at its opinion, Piper Jaffray's review included:

a draft dated July 13, 2002 of the merger agreement;

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selected publicly available financial and other information related to Harvard Bioscience and Genomic Solutions;

certain publicly available market and securities data of Harvard Bioscience and Genomic Solutions;

to the extent publicly available, certain financial and securities data of selected other companies whose securities are traded in public markets;

to the extent publicly available, information relating to selected acquisition transactions involving companies operating in industries deemed similar to the industry in which Genomic Solutions operates; and



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internal financial forecasts of Genomic Solutions prepared and furnished by Genomic Solutions' management and giving effect to Genomic Solutions' previously-announced restructuring.

In addition, Piper Jaffray visited the headquarters of Genomic Solutions and conducted discussions with members of senior management concerning the financial condition, current operating results and business outlook of Genomic Solutions and the combined company following the merger. Piper Jaffray also visited Harvard Bioscience's headquarters and had informal discussions with members of Harvard Bioscience's senior management.

In delivering its opinion to the board of directors of Genomic Solutions, Piper Jaffray prepared and delivered to Genomic Solutions' board of directors written materials containing various analyses and other information material to the opinion. The following is a summary of the analyses contained in the materials:

*Implied Consideration.* Based on the 3,200,000 shares of Harvard Bioscience common stock to be received by Genomic Solutions stockholders in the merger, and the value of Harvard Bioscience stock consideration (based on the five-day trading average of Harvard Bioscience immediately prior to July 16, 2002 of \$5.78 per share), Piper Jaffray calculated the aggregate implied value of the stock consideration payable in the transaction for Genomic Solutions common stock to be approximately \$18.48 million. Piper Jaffray also calculated that stockholders of Genomic Solutions would be issued an aggregate of 10.4% of the total Harvard Bioscience common stock and common stock equivalents outstanding after the merger. Giving effect to the implied value of the stock consideration and the aggregate cash consideration of \$9.0 million, as well as to Genomic Solutions' estimated outstanding debt and cash at the closing of the merger, Piper Jaffray calculated an implied company value (equity value plus debt less cash) for Genomic Solutions of \$29.16 million.

*Market Analysis.* Piper Jaffray calculated the assumed exchange ratio that would result for the merger if all the consideration paid to Genomic Solutions stockholders was in the form of Harvard Bioscience common stock by dividing the per share consideration of \$0.87 by the five-day trading average of Harvard Bioscience immediately prior to July 16, 2002 of \$5.78 per share. This assumed exchange ratio of 0.1515 was measured against the "implied" exchange ratio based on historical stock prices for Harvard Bioscience. Piper Jaffray examined the exchange ratios implied by the 30, 60, 90, 180 day and one year trading median stock prices for Harvard Bioscience. This analysis produced the following implied historical exchange ratios:

	Transaction	Historical Exchange Ratio (Median)
30 Day Period	0.1515x	0.1252
60 Day Period	0.1515x	0.1154
90 Day Period	0.1515x	0.1287
180 Day Period	0.1515x	0.1860
One Year Period	0.1515x	0.2058

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Piper Jaffray presented selected price and volume distribution data of Harvard Bioscience and Genomic Solutions and illustrated the relative stock price performance of Harvard Bioscience and Genomic Solutions against the Nasdaq Stock Market and the S&P 500 composite index. Piper Jaffray also presented ownership data for both Harvard Bioscience and Genomic Solutions and summaries of the published estimates by securities market research analysts for both Harvard Bioscience and Genomic Solutions.

*Genomic Solutions Comparable Public Company Analysis.* Piper Jaffray compared financial information and valuation ratios of Genomic Solutions to corresponding data and ratios from seven publicly traded companies deemed comparable to Genomic Solutions. This group included Aclara Biosciences, Inc., Argonaut Technologies, Inc., Bruker AXS Inc., CIPHERGEN Biosystems, Inc., Nanogen, Inc., Orchid Biosciences, Inc. and Transgenomic, Inc. This group was selected from instrumentation companies operating in the life sciences enabling technology industry with a market capitalization below \$100 million that were expected to be unprofitable or marginally profitable in 2002 based on publicly available estimates, and were companies otherwise deemed comparable by Piper Jaffray.

This analysis produced multiples of selected valuation data as follows:

		Comparable Companies			
Genomic Solutions(1)	Transaction(2)	Low	Mean	Median	High

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	Comparable Companies										
Market capitalization (in millions)	\$	14.7	\$	27.5	<del>15.9</del>	\$	58.3	\$	59.8	\$	70.9
Share price as percentage of 52-week high		11.7%		21.8%	\$	15.3%		22.0%		19.1%	34.8%
Company value to latest twelve months revenue		0.8x		1.4x		0.3x		0.9x		0.7x	2.1x
Company value to estimated calendar 2002 revenue		0.7x		1.2x		0.3x		0.6x		0.4x	1.1x
Company value to estimated calendar 2003 revenue		0.6x		1.1x		0.2x		0.3x		0.3x	0.5x

(1) Based on July 15, 2002 closing price.

(2) Based on the five-day trading average of Harvard Bioscience immediately prior to July 16, 2002.

*Selected Transaction Analysis.* Piper Jaffray reviewed 12 merger and acquisition transactions that it deemed comparable to the merger. It selected these transactions by searching Securities and Exchange Commission filings, public company disclosures, press releases, industry and popular press reports, databases and other sources and by applying the following criteria:

transactions involving target companies in the life sciences enabling technology industry that were primarily instrumentation companies;

transactions in which the target company had an enterprise value between \$5.0 million and \$650.0 million; and

transactions that were announced or completed after January 1, 1998.

Piper Jaffray compared the resulting multiples of company value to the latest 12 months revenues to the multiples for Genomic Solutions derived from the implied value payable in the merger based on the five-day trading average of Harvard Bioscience immediately prior to July 16, 2002.

	Selected Transactions				
	Low	Mean	Median	High	
Company value to latest 12 months revenue	1.4x	0.7x	2.0x	1.8x	3.9x

*Premiums Paid Analysis.* Piper Jaffray reviewed publicly available information for 65 merger and acquisition transactions involving public companies to determine the implied premiums payable in these transactions over recent trading prices. It selected these transactions by searching Securities and

Exchange Commission filings, public company disclosures, press releases, industry and popular press reports, databases and other sources and by applying the following criteria:

transactions involving target companies with SIC codes in the life sciences industry;

transactions in which at least 50% of a public target company was acquired; and

transactions announced or completed after January 1, 2000.

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The table below shows a comparison of those premiums to the premium that would be paid to Genomic Solutions stockholders based on the implied value payable in the merger. The premium calculations for Genomic Solutions stock are based upon an assumed announcement date of July 16, 2002:

Implied Premium (Discount)					
Transaction	Comparable Transactions				
	Low	Mean	Median	High	
One day before announcement	86.1%	(45.4%)	32.2%	28.6%	121.0%
One week before announcement	34.6%	(34.0%)	40.4%	31.0%	127.3%
Four weeks before announcement	25.0%	(47.8%)	52.1%	48.2%	216.2%

*Discounted Cash Flow Analysis.* Piper Jaffray performed a discounted cash flow analysis of Genomic Solutions in which it calculated the present value of the projected hypothetical future cash flows of Genomic Solutions using estimates and financial forecasts prepared by Genomic Solutions' management. Piper Jaffray estimated a range of theoretical values for Genomic Solutions based on the net present value of its implied annual cash flows and a terminal value for Genomic Solutions in 2007 calculated based upon a multiple of EBIT (earnings before interest and taxes). Piper Jaffray applied a range of discount rates of 20% to 30% and a range of terminal value multiples of 8.0x to 12.0x of forecasted 2007 EBIT. This analysis yielded the following results:

### Aggregate Enterprise Value of Genomic Solutions