

NORTHFIELD LABORATORIES INC /DE/

Form PRER14A

August 13, 2008

Table of Contents

**SCHEDULE 14A
(RULE 14a-101)
INFORMATION REQUIRED IN PROXY STATEMENT
SCHEDULE 14A INFORMATION
PROXY STATEMENT PURSUANT TO SECTION 14(a) OF THE SECURITIES
EXCHANGE ACT OF 1934 (AMENDMENT NO.)**

Filed by the registrant

Filed by a party other than the registrant

Check the appropriate box:

- Preliminary proxy statement.
- Confidential, for use of the Commission only (as permitted by Rule 14a-6(e)(2)).
- Definitive proxy statement.
- Definitive additional materials.
- Soliciting material pursuant to Rule 14a-12

NORTHFIELD LABORATORIES INC.

(Name of Registrant as Specified in Its Charter)

(Name of Person(s) Filing Proxy Statement if Other Than the Registrant)

Payment of filing fee (check the appropriate box):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

(1) Title of each class of securities to which transaction applies:

(2) Aggregate number of securities to which transaction applies:

(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):

(4) Proposed maximum aggregate value of transaction:

(5) Total fee paid:

- Fee paid previously with preliminary materials.
- Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the form or schedule and the date of its filing.

- (1) Amount Previously Paid:
 - (2) Form, Schedule or Registration Statement No.:
 - (3) Filing Party:
 - (4) Date Filed:
-

Table of Contents

NORTHFIELD LABORATORIES INC.

1560 Sherman Avenue, Suite 1000

Evanston, Illinois 60201-4800

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

to be held
October 2, 2008

TO THE STOCKHOLDERS OF NORTHFIELD LABORATORIES INC:

The Annual Meeting of the stockholders of Northfield Laboratories Inc. (the Company) will be held on Thursday, October 2, 2008 at 10:00 A.M., local time, at The Deer Path Inn, 255 East Illinois Road, Lake Forest, Illinois 60045 for the following purposes:

1. To elect seven directors to hold office until the next Annual Meeting of the stockholders of the Company;
2. To ratify the appointment of KPMG LLP as independent auditors of the Company to serve for the Company's 2009 fiscal year;
3. To approve an amendment to the Northfield Laboratories Inc. 2003 Equity Compensation Plan to increase the number of shares available for awards under the Plan from 2,250,000 to 4,000,000 shares and to amend certain other provisions of the Plan;
4. To approve a proposal to amend the Company's Restated Certificate of Incorporation to permit a reverse split of the outstanding shares of the Company's Common Stock, par value \$.01 per share; and
5. To transact such other business as may properly come before the Annual Meeting.

The Board of Directors has fixed the close of business on August 11, 2008 as the record date for determination of stockholders entitled to notice of and to vote at the Annual Meeting or any adjournment or postponement thereof.

Stockholders are requested to complete and sign the enclosed Proxy, which is solicited by the Board of Directors, and promptly return it in the accompanying envelope.

By Order of the Board of Directors

JACK J. KOGUT
Secretary

Evanston, Illinois

August , 2008

It is important that your stock be represented at the Annual Meeting regardless of the number of shares you hold. Please complete, sign and mail the enclosed Proxy in the accompanying envelope even if you intend to be present at the Annual Meeting. Returning the Proxy will not limit your right to vote in person or to attend the Annual Meeting, but will ensure your representation if you cannot attend. The Proxy is revocable at any time prior to its use.

TABLE OF CONTENTS

PROXY STATEMENT

MANAGEMENT

EXECUTIVE COMPENSATION

SUMMARY COMPENSATION TABLE

GRANTS OF PLAN-BASED AWARDS

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR END

OPTION EXERCISES AND STOCK VESTED

SUMMARY OF COMPENSATION AND BENEFITS STEVEN A. GOULD, M.D.

SUMMARY OF COMPENSATION AND BENEFITS JACK J. KOGUT

SUMMARY OF COMPENSATION AND BENEFITS ROBERT L. MCGINNIS

SUMMARY OF COMPENSATION AND BENEFITS DONNA O. NEILL-MULVIHILL

SUMMARY OF COMPENSATION AND BENEFITS LAUREL A. OMERT, M.D.

AUDIT COMMITTEE REPORT

SECURITY OWNERSHIP OF PRINCIPAL STOCKHOLDERS AND MANAGEMENT

Item 2. RATIFICATION OF APPOINTMENT OF INDEPENDENT PUBLIC ACCOUNTANTS

Item 3. APPROVAL OF AMENDMENT TO THE NORTHFIELD LABORATORIES INC. 2003

EQUITY COMPENSATION PLAN

Item 4: AMENDMENT TO RESTATED CERTIFICATE OF INCORPORATION TO EFFECT A

REVERSE SPLIT OF NORTHFIELD S COMMON STOCK

PROCEDURE FOR SUBMITTING STOCKHOLDER PROPOSALS AND NOMINATIONS

GENERAL

Table of Contents

Northfield Laboratories Inc.

PROXY STATEMENT

This document is being furnished to holders of the common stock of Northfield Laboratories Inc. in connection with the solicitation of proxies by our board of directors for use at Northfield's annual meeting of stockholders to be held on Thursday, October 2, 2008 at 10:00 A.M., local time, at The Deer Path Inn, 255 East Illinois Road, Lake Forest, Illinois 60045 and at any adjournment or postponement thereof, for the purpose of considering and acting upon the matters set forth in the accompanying Notice of Annual Meeting of Stockholders.

This document is first being mailed to holders of common stock on or about August 1, 2008.

Our principal executive offices are located at 1560 Sherman Avenue, Suite 1000, Evanston, Illinois 60201-4800. Our telephone number is (847) 864-3500. We also maintain an Internet website at www.northfieldlabs.com. The information contained on our website is not deemed to be soliciting material and is not incorporated by reference in this document.

Voting and Record Date

Only holders of record of common stock as of the close of business on August 11, 2008, the record date for the annual meeting, are entitled to notice of and to vote at the annual meeting. As of August 11, 2008, there were 26,958,516 shares of common stock outstanding and entitled to be voted at the annual meeting.

Quorum

The presence, in person or by proxy, of the holders of a majority of the outstanding shares of common stock entitled to vote at the annual meeting is necessary to constitute a quorum at the annual meeting. Shares that are present and entitled to vote on any of the proposals to be considered at the annual meeting will be considered to be present at the annual meeting for purposes of establishing the presence or absence of a quorum for the transaction of business. If a broker indicates on the enclosed proxy that it does not have discretionary authority as to certain shares to vote on a particular proposal, but otherwise has authority to vote at the annual meeting, those shares will also be considered as present for purposes of determining the presence or absence of a quorum at the annual meeting.

Required Vote

Each holder of record of shares who is entitled to vote may cast one vote per share held on all matters properly submitted for the vote of our stockholders at the annual meeting.

Directors are elected by plurality vote and the seven nominees who receive the greatest number of votes will be elected. Withheld votes and abstentions will not be taken into account for purposes of determining the outcome of the election of directors.

The affirmative vote of a majority of the shares present in person or by proxy at the annual meeting and entitled to vote on such proposal will be required to ratify the appointment of our independent auditors and the proposal to amend the Northfield Laboratories Inc. 2003 Equity Compensation Plan. Abstentions will have the effect of negative votes with respect to these proposals.

The affirmative vote of at least 80 percent of the shares of our common stock outstanding as of the record date for the annual meeting will be required to approve the proposal to amend our restated certificate of incorporation to permit a reverse split of our common stock. Abstentions will have the effect of negative votes with respect to this proposal.

If a broker indicates on the enclosed proxy that it does not have discretionary authority as to certain shares to vote on a particular proposal, those shares will not be considered as votes cast with respect to the proposal, but will be considered as present for purposes of determining the number of votes required to approve the proposal.

Table of Contents

Proxies

All shares entitled to vote and represented by properly executed proxies received and not revoked prior to the annual meeting will be voted at the annual meeting in accordance with the instructions indicated on those proxies. If no instructions are indicated on a properly executed proxy, the shares represented by that proxy will be voted as recommended by the board of directors.

If any other matters are properly presented at the annual meeting for consideration, including, among other things, consideration of a motion to adjourn the annual meeting to another time or place, the persons named in the enclosed form of proxy will have discretion to vote on those matters in accordance with their best judgment to the same extent as the person signing the proxy would be entitled to vote. It is not currently anticipated that any other matters will be raised at the annual meeting.

Any proxy given pursuant to this solicitation may be revoked by the person giving it at any time before it is voted. A proxy may be revoked by filing with Northfield's Corporate Secretary, at or before the taking of the vote at the annual meeting, a written notice of revocation or a duly executed proxy, in either case later dated than the prior proxy relating to the same shares. A proxy may also be revoked by attending the annual meeting and voting in person, although attendance at the annual meeting will not itself revoke a proxy. Any written notice of revocation or subsequent proxy should be delivered to Northfield Laboratories Inc., 1560 Sherman Avenue, Suite 1000, Evanston, Illinois 60201-4800, Attention: Corporate Secretary, or hand delivered to the Corporate Secretary, at or before the taking of the vote at the annual meeting.

We will bear all of the expenses of this solicitation. In addition to solicitation by mail, our directors, officers and employees may solicit proxies personally and by telephone, internet and telegraph, all without extra compensation.

Annual Report

A copy of our Annual Report on Form 10-K for our 2008 fiscal year, including financial statements, has been sent simultaneously with this document or has been previously provided to all stockholders entitled to vote at the annual meeting.

Recommendation of the Board of Directors

The board of directors recommends a vote **FOR** each of the proposals to be considered at the annual meeting.

Table of Contents**Item 1. ELECTION OF DIRECTORS**

The number of directors comprising our full board of directors is currently fixed at seven. All of our directors stand for election each year at our annual meeting. Directors elected at this year's annual meeting will hold office until the next annual meeting or until their earlier resignation or removal.

Northfield's board of directors, based on the recommendation of its nominating and corporate governance committee, has nominated the following nominees for election at the annual meeting. In the event any of the nominees should become unavailable for election, the nominating and corporate governance committee may designate substitute nominees, in which event shares represented by all proxies returned will be voted for the substitute nominees unless an indication to the contrary is included on the proxies. The board of directors recommends a vote **FOR** the election of each of the following director nominees.

| Name | Director Since | Office | Principal Occupation and Business Experience |
|-----------------------|-----------------------|--------------------------------------|---|
| Steven A. Gould, M.D. | 1993 | Chairman and Chief Executive Officer | Dr. Gould, age 61, is a founding member of Northfield's scientific team and has served as the Chairman and Chief Executive Officer of Northfield since July 2002. From July 1993 to July 2002, Dr. Gould served as President and a director of Northfield. Prior to that time, Dr. Gould served as a Consultant and Principal Investigator for Northfield's clinical trials. From 1989 to 1993, Dr. Gould served as Chief of the Department of Surgery of Michael Reese Hospital. Since 1990, Dr. Gould has also served as Professor of Surgery, nonsalaried, at the University of Illinois College of Medicine. From 1979 through 1989, Dr. Gould was Assistant Professor and then Associate Professor in the Department of Surgery at The University of Chicago School of Medicine. Dr. Gould has been involved in development of national transfusion policy through his participation in the activities of the National Heart Lung Blood Institute, the National Blood Resource Education Panel, the Department of Defense, the American Association of Blood Banks, the American College of Surgeons and the American Red Cross. Dr. Gould received his M.D. degree from the Boston University School of Medicine in 1973. |
| John F. Bierbaum | 2002 | Director | Mr. Bierbaum, age 64, has served as a director of Northfield since September 2002. Currently, he is serving as Chief Financial Officer, Archdiocese of Saint Paul and Minneapolis. Mr. Bierbaum has served as a consultant to PepsiAmericas, Inc. since May 2003. Prior to that date, Mr. Bierbaum served as a senior officer of PepsiAmericas, Inc., formerly known as Whitman Corporation, and its |

predecessors. Mr. Bierbaum is also a director of Holstein USA, Inc. Mr. Bierbaum is a C.P.A. and received his B.S. degree from the University of Minnesota in 1967.

Bruce S. Chelberg 1989 Director

Mr. Chelberg, age 74, has served as a director of Northfield since 1989. Mr. Chelberg served from May 1992 through November 2000 as the Chairman and Chief Executive Officer of PepsiAmericas, Inc., formerly known as Whitman Corporation. Mr. Chelberg is also a director of First Midwest Bancorp, Inc. and Snap-On Incorporated. Mr. Chelberg received his LLB degree from the University Of Illinois College of Law in 1958.

Table of Contents

| Name | Director Since | Office | Principal Occupation and Business Experience |
|--------------------|-----------------------|---------------|---|
| Alan L. Heller | 2006 | Director | Mr. Heller, age 54, has served as a director of Northfield since February 2006. He has served as an Investment Advisor to Water Street Capital since February 2006. From November 2004 to November 2005, he was President and Chief Executive Officer of American Pharmaceutical Partners. From January 2004 to November 2004, Mr. Heller was an investment advisor on life science transactions to One Equity Partners, a private equity arm of JP Morgan Chase/Bank. From October 2000 to January 2004, Mr. Heller served as Senior Vice President and President Global Renal operations at Baxter Healthcare Corporation. Prior to joining Baxter, Mr. Heller spent 23 years at G.D. Searle. Mr. Heller is also a director of Savient Pharmaceuticals, Inc., Applied Neurosolutions, and Multiple Myeloma Research Foundation and Illinois Biotech Association, each not-for-profit organizations. He holds a B.S. in Accounting from the University of Illinois at Chicago and an M.B.A. from De Paul University. |
| Paul M. Ness, M.D. | 2002 | Director | Dr. Ness, age 62, has served as a director of Northfield since September 2002. Dr. Ness is Professor of Pathology, Medicine and Oncology at the Johns Hopkins University School of Medicine and has been Director of the School's Transfusion Medicine Division since 1979. Dr. Ness previously served as Chief Executive Officer, Senior Medical Director and Scientific Director of the American Red Cross Blood Services Greater Chesapeake and Potomac Region. Dr. Ness served on the Blood Products Advisory Committee of the Food and Drug Administration, or FDA, from 1996 to 1998 and has also served on numerous FDA advisory panels. He was the president of the American Association of Blood Banks in 1999 and became Editor of the journal TRANSFUSION in 2003. Dr. Ness received his M.D. degree from the State University of New York in 1971. |
| David A. Savner | 1998 | Director | Mr. Savner, age 64, has served as a director of Northfield since April 1998. Mr. Savner has been the Senior Vice President and General Counsel of General Dynamics Corporation since April 1998. From 1987 to 1998, Mr. Savner was a senior partner in the law firm of Jenner & Block. Mr. Savner serves |

as a director of Everybody Wins DC, a not-for-profit organization. Mr. Savner received his J.D. degree from Northwestern University Law School in 1968.

Table of Contents

| Name | Director Since | Office | Principal Occupation and Business Experience |
|---------------------|-----------------------|---------------|--|
| Edward C. Wood, Jr. | 2005 | Director | Mr. Wood, age 63, has served as a director of Northfield since September 2005. Since 2000, he has served as Chief Executive Officer of Summit Roundtable, consultants to medical products companies. Prior to 2000, Mr. Wood served as President of COBE BCT Inc., now Cardian BCT Inc., a blood component technology company. Mr. Wood is also a director of MonoGen, Inc., Engineering and Research Associates, Inc. (SEBRA) and ArcScan, Inc. Mr. Wood received his M.B.A. from the University of Colorado in 1972. |

Committees of the Board of Directors

Our board of directors has three standing committees: the audit committee, the nominating and corporate governance committee and the compensation committee.

The following directors currently serve as members of these committees:

| | |
|---|--|
| Audit Committee | John F. Bierbaum (Chairman) Alan L. Heller Edward C. Wood, Jr. |
| Nominating and Corporate Governance Committee | David A. Savner (Chairman) Paul M. Ness, M.D. |
| Compensation Committee | David A. Savner (Chairman) Bruce S. Chelberg |

Director Independence

The board of directors has determined that each of the non-management directors, Messrs. Bierbaum, Chelberg, Heller, Ness, Savner and Wood, is an independent director as defined in Rule 4200 of the Nasdaq listing standards and, therefore, that a majority of our board of directors is independent as so defined.

The foregoing independence determination also included the conclusion of the board of directors that each of the members of the audit committee is independent for purposes of membership on the audit committee under Rule 4350(d) of the Nasdaq listing standards, which includes the independence requirements of Rule 4200 and additional independence requirements under SEC Rule 10A-3(b), and that each of the members of the nominating and corporate governance committee and compensation committee is independent under the Nasdaq listing standards applicable for purposes of membership on those committees.

Executive Sessions

Our independent directors participate in regularly scheduled executive sessions at which only independent directors are present. During our 2008 fiscal year, our independent directors participated in three executive sessions, all of

which were held in conjunction with regularly scheduled board meetings.

Audit Committee

Meetings. During our 2008 fiscal year, the audit committee met five times. Each of the members of the audit committee participated in at least 75 percent of the meetings of the committee.

Charter and Purposes. The charter of the audit committee is available on our Internet website as described below under Corporate Governance and Website Information. The primary purposes of the audit committee are to oversee on behalf of the board of directors:

our accounting and financial reporting processes and the integrity of our financial statements;

5

Table of Contents

the audits of our financial statements and the appointment, compensation, qualifications, independence and performance of our independent auditors; and

our internal control over financial reporting.

Members. The board of directors has determined that the members of the audit committee are independent as described above under *Director Independence*. The board of directors has also determined that all of the members of the audit committee meet the requirement of the Nasdaq listing standards that each member be able to read and understand fundamental financial statements, including a company's balance sheet, income statement and cash flow statement. Additionally, the board of directors has determined that Mr. Bierbaum meets the requirement of the Nasdaq listing standards that at least one member of the committee has past employment experience in finance or accounting, requisite professional certification in accounting, or other comparable experience or background which results in the individual's financial sophistication.

Audit Committee Financial Expert. The board of directors has not determined that any of the members of the audit committee is an *audit committee financial expert* as defined in SEC Regulation S-K Item 401(h). Our board of directors believes that the current members of the audit committee have requisite levels of financial literacy and financial sophistication to enable the audit committee to be effective in relation to the purposes outlined in its charter and in light of the scope and nature of our company's business and financial statements. The board of directors accordingly does not believe it is necessary at this time to recruit a new board member in order to name an *audit committee financial expert*.

Nominating and Corporate Governance Committee and Director Nomination Process

Meetings. During our 2008 fiscal year, the nominating and corporate governance committee met one time. Each of the members of the nominating and corporate governance committee participated in the meeting of the committee.

Charter and Purposes. The charter of the nominating and corporate governance committee is available on our Internet website as described below under *Corporate Governance and Website Information*. The primary purposes of the committee are to:

select the individuals qualified to serve on the board of directors for election by our stockholders at each annual meeting of stockholders and to fill vacancies on the board of directors; and

develop, assess and recommend to the board of directors corporate governance policies for our company.

Members. The board of directors has determined that the members of the nominating and corporate governance committee are independent as described above under *Director Independence*.

Process for Identifying Director Candidates. The committee's current process for identifying and evaluating nominees for director consists of general periodic evaluations of the size and composition of the board of directors with a goal of maintaining continuity of appropriate industry expertise and knowledge of our company.

Director Nominations Made by Stockholders. The nominating and corporate governance committee will consider nominations timely made by stockholders pursuant to the requirements of our bylaws referred to below under *Procedure for Submitting Stockholder Proposals and Nominations*. The committee has not formally adopted any specific elements of this policy, such as minimum specific qualifications or specific qualities or skills that must be possessed by qualified nominees, beyond the committee's willingness to consider candidates proposed by stockholders.

The committee expects to monitor developments in this area in the future and may or may not consider adopting a more detailed policy.

Compensation Committee

Meetings. During our 2008 fiscal year, the compensation committee met two times. Each of the members of the compensation committee participated in at least 75 percent of the meetings of the committee.

Table of Contents

Charter and Purposes. The charter of the compensation committee is available on our Internet website as described below under Corporate Governance and Website Information. The primary purposes of the committee are to:

review and approve the compensation of our Chief Executive Officer and other executive officers;

review the performance of our Chief Executive Officer and other executive officers; and

make recommendations to the board of directors with respect to compensation, incentive compensation plans and equity-based plans applicable to our executive officers and employees.

Members. The board of directors has determined that the members of the compensation committee are independent as described above under Director Independence.

Stockholder Communications to the Board of Directors

The audit committee has undertaken on behalf of the board of directors to be the recipient of communications from stockholders relating to our company. If particular communications are directed to the full board, independent directors as a group, or individual directors, the audit committee will route these communications to the appropriate directors or committees so long as the intended recipients are clearly stated. You may send communications intended to be anonymous by mail, without indicating your name or address, to Northfield Laboratories Inc., 1560 Sherman Avenue, Suite 1000, Evanston, Illinois 60201-4800, Attention: Chairman of the Audit Committee. Communications not intended to be made anonymously may be made by mail to the above address, including whatever identifying or other information you wish to communicate.

Communications from employees or agents of our company will not be treated as communications from our stockholders unless the employee or agent clearly indicates that the communication is made solely in the person's capacity as a stockholder. Stockholder proposals and director nominations intended to be presented at a meeting of stockholders by inclusion in our company's proxy statement under SEC Rule 14a-8 or intended to be brought before a stockholders meeting in compliance with our bylaws are subject to specific notice and other requirements referred to under Procedure for Submitting Stockholder Proposals and Nominations. The communications process for stockholders described above does not modify or relieve any requirements for stockholder proposals or nominations intended to be presented at a meeting of stockholders. If you wish to make a stockholder proposal or nomination to be presented at a meeting of stockholders, you may not communicate such proposals anonymously and may not use the audit committee communication process described above in lieu of following the notice and other requirements that apply to stockholder proposals or nominations intended to be presented at a meeting of stockholders.

Corporate Governance Guidelines

The board of directors has adopted a set of corporate governance guidelines which, along with the charters of the board's committees, establish the framework for Northfield's corporate governance. These guidelines address a range of governance issues, including: the responsibilities, composition, operations and structure of the board of directors and its committees; director and executive compensation; and Northfield's code of business conduct and ethics. The board of directors reviews these guidelines and other aspects of Northfield's governance practices periodically and may make changes in these guidelines in the future. Our corporate governance guidelines are available on our Internet website as described below under Corporate Governance and Website Information.

Our corporate governance guidelines provide that it is Northfield's general policy not to nominate individuals who have reached the age of 72 for election to our board of directors. Individuals over the age of 72 years may stand for

election as directors with the approval of the nominating and corporate governance committee and a two-thirds vote of the directors then in office and for circumstances of significant benefit to Northfield. Based on the recommendation of the nominating and corporate governance committee, the board of directors has unanimously approved the nomination of Bruce Chelberg for election at the annual meeting. The board of directors based its determination to nominate Mr. Chelberg on his extensive business experience and his valuable continuing contributions as a Northfield director.

Corporate Governance and Website Information

We believe that we are presently in compliance with the corporate governance requirements of the Nasdaq listing standards and will continue to be in compliance with these requirements as of the date of the annual meeting, assuming

Table of Contents

the nominees for director are elected and the absence of circumstances beyond our control that would adversely affect compliance. The principal elements of these governance requirements as implemented by our company are:

an affirmative determination by the board of directors that a majority of the directors is independent;

regularly scheduled executive sessions of independent directors;

an audit committee, nominating and corporate governance committee and compensation committee comprised of independent directors and having the purposes and charters described above under the separate committee headings;

specific audit committee authority and procedures outlined in the charter of the audit committee; and

a code of business conduct and ethics applicable to directors, officers and employees of our company that meets the definition of a code of ethics set forth in SEC Regulation S-K Item 406. This code also contains provisions that constitute a code of ethics specifically applicable to our Chief Executive Officer, Vice President Finance and other members of the our finance department based on their special role in promoting fair and timely public reporting of financial and business information about our company.

The charters of our three independent board committees, our audit committee's pre-approval policy for services provided by our auditors, our corporate governance guidelines and our code of business conduct and ethics are available without charge on our Internet website at www.northfieldlabs.com.

Compensation of Directors

We compensate our outside directors for their participation at board of directors meetings and at committee meetings of the board of directors at a rate of \$1,000 per meeting. Directors are also reimbursed for their expenses for attending meetings of the board of directors and committees. In addition, non-employee directors receive an annual grant of 10,000 stock options, the share equivalent of \$15,000 in stock and an annual cash retainer of \$10,000 per year. The stock options provide for an exercise price equal to the market price of our common stock on the date of grant and are immediately exercisable. The stock grants are immediately vested on date of grant.

The table below sets forth the remuneration earned during our most recent fiscal year by each of our outside directors:

| Name | Fees Earned or Paid in Cash | Stock Awards | Option Awards(1) | All Other Compensation | Total |
|---------------------|--|-------------------------|-----------------------------|-----------------------------------|-------------------|
| John F. Bierbaum | \$ 20,000 | \$ 15,000 | \$ 20,600 | | \$ 55,600 |
| Bruce S. Chelberg | 17,000 | 15,000 | 20,600 | | 52,600 |
| Alan L. Heller | 20,000 | 15,000 | 20,600 | | 55,600 |
| Paul M. Ness, M.D. | 15,000 | 15,000 | 20,600 | 60,000(2) | 110,600 |
| David A. Savner | 16,000 | 15,000 | 20,600 | | 51,600 |
| Edward C. Wood, Jr. | 20,000 | 15,000 | 20,600 | | 55,600 |
| Total | \$ 108,000 | \$ 90,000 | \$ 123,600 | | \$ 381,600 |

- (1) The fair value of each option grant is estimated on the date of grant using the Black-Scholes option pricing model.
- (2) Dr. Ness has provided consulting services to Northfield relating to FDA matters and the sourcing of red blood cells from major blood banking organizations. Dr. Ness received \$60,000 from Northfield as payment for his consulting services during our 2008 fiscal year.

Director Attendance

During our 2008 fiscal year, our board of directors held five meetings. Each of our directors attended 75 percent or more of these meetings.

We encourage our directors to attend our annual meeting of stockholders, but we have not adopted a formal policy requiring attendance. At our 2007 annual meeting, all but one of our directors was in attendance.

Table of Contents

MANAGEMENT

Executive Officers

The board of directors will elect our executive officers at its first meeting following the annual meeting. Our executive officers are as follows:

| Name | Position |
|-------------------------|--|
| Steven A. Gould, M.D. | Chairman of the Board of Directors and Chief Executive Officer |
| Jack J. Kogut | Senior Vice President Administration, Secretary and Treasurer |
| Robert L. McGinnis | Senior Vice President Operations |
| Marc D. Doubleday | Chief Technical Officer |
| George A. Hides | Vice President Clinical Operations and Regulatory Affairs |
| Laurel A. Omert, M.D. | Chief Medical Officer |
| Donna O Neill-Mulvihill | Vice President Finance |
| Sophia H. Twaddell | Vice President Corporate Communications |

A biographical summary of the business experience of Dr. Gould is included under Election of Directors.

Mr. Kogut, age 61, has served as Senior Vice President Administration since August 2006. Mr. Kogut served as Northfield's Senior Vice President and Chief Financial Officer from January 2003 to August 2006 and as Vice President Finance, Secretary and Treasurer since January 1994. From 1982 to 1986, he was the Group Controller Health Products for Sybron Corporation and also served as President of Sybron Asia. Mr. Kogut received his M.B.A. degree from Loyola University of Chicago in 1972.

Mr. McGinnis, age 44, has served as Senior Vice President Operations since September 2005. Mr. McGinnis served as Northfield's Vice President Planning and Resource Development from February 2003 to September 2005. Prior to that time, Mr. McGinnis served as Northfield's Vice President Manufacturing Development since August 1997. From 1995 to 1997, Mr. McGinnis was a Project Manager for Raytheon Engineering and Construction. Prior to 1995, Mr. McGinnis was employed by the John Brown division of Trafalgar House as a Project Manager and Engineer. Mr. McGinnis received his M.B.A. degree from the University of Chicago in 1995.

Mr. Doubleday, age 49, has served as Chief Technical Officer since September 2005. Mr. Doubleday served as Northfield's Vice President and General Manager from February 2003 to September 2005 and as Vice President Process Engineering, Plant Manager and Senior Process Engineer since 1988. Before joining Northfield in 1988, Mr. Doubleday was employed in various capacities with Davy McKee, Millipore Corporation and Abbott Laboratories, Inc. Mr. Doubleday received his M.M. degree from Northwestern University in 1991.

Mr. Hides, age 41, has served as Vice President Clinical and Regulatory Affairs since July 2008. Mr. Hides served as Northfield's Vice President Clinical Operations from January 2005 to July 2008. Prior to that time, Mr. Hides served as Northfield's Senior Director of Clinical and Regulatory Affairs. Before joining Northfield in 1995, Mr. Hides was employed in various clinical and research capacities at Columbia/HCA Michael Reese Hospital. Mr. Hides received his B.A. degree from De Pauw University in 1989.

Dr. Omert, age 51, has served as Northfield's Chief Medical Officer since January 2005. From 1997 to January 2005, Dr. Omert served as an Associate Professor of Surgery at Drexel University and as Associate Director of Trauma at

Allegheny General Hospital. Prior to 1997, Dr. Omert served as Associate Professor of Surgery in the Division of Trauma at West Virginia University. Dr. Omert received her M.D. degree from the Loyola University/ Stritch School of Medicine in 1982.

Ms. O Neill-Mulvihill, age 47, has served as Vice President Finance since March 2007. Prior to that time, Ms. O NeillMulvihill served as the Company's Controller since January 2006. From November 1998 to January 2006, she served as Controller of Evanston Lumber Company. Ms. O Neill-Mulvihill received a B.S. in Finance in 1999, and an M.B.A in Management Information Systems in 2005, both from DePaul University.

Ms. Twaddell, age 56, has served as Vice President Corporate Communications since January 2003. From 1999 to 2002, Ms. Twaddell was Senior Vice President and Partner and Global Biotechnology Practice Leader at Fleishman-Hillard. Prior to joining Fleishman-Hillard, Ms. Twaddell was Vice President Investment Banking at Prudential Vector Healthcare Group and held various positions at American Hospital Supply Corporation, Baxter Healthcare Corporation and Boots Pharmaceuticals, Inc. She received an M.A. degree from Northwestern University in 1978.

Table of Contents

EXECUTIVE COMPENSATION

Compensation Discussion and Analysis

Compensation Policy Objectives

The primary objective of our policies with respect to executive compensation is to compensate our executive officers fairly and adequately in relation to their responsibilities, capabilities and contributions to Northfield. We have also sought to further align the interests of senior management with those of our stockholders with respect to long term increases in stockholder value. Our compensation policies are designed to reward the individual performance and continued service of each executives as well as to provide senior management with current and long term incentives based on the achievement of Northfield's corporate objectives.

Elements of Compensation

The principal elements of compensation paid to our executive officers consist of base salary, cash bonuses, stock options, restricted stock awards, contributions to our 401(k) savings plan, enhanced life and disability insurance coverage and participation in various welfare benefit plans made available generally to our employees.

The annual salaries paid to our executive officers are determined based principally on the compensation levels for similar or competitive companies, including companies in the pharmaceutical and biomedical industries, as well as the levels of responsibility and experience of the individual executive officers.

Our executive officers may also receive cash bonuses based on their individual contributions to Northfield as well as the achievement of Northfield's corporate objectives. Our employment agreements with Steven A. Gould, M.D., our Chief Executive Officer, Jack J. Kogut, our Senior Vice President Administration, Secretary and Treasurer, and Robert L. McGinnis, our Senior Vice President Operations, provide for target bonus payments equal to 50 percent, 40 percent and 40 percent, respectively, of their annual base salary. For superior performance, the maximum bonus opportunity is 150 percent, 100 percent and 100 percent, respectively, of each executive's annual base salary. The performance criteria for bonuses under these agreements is established prospectively by our compensation committee each year and include factors such as achievement of clinical, regulatory, manufacturing and administrative objectives. The board of directors elected not to adopt performance goals as they relate to bonus payments for officers in fiscal 2003, and accordingly no bonuses were paid to our officers for fiscal 2003. The employment agreements also provide for cash bonus payments equal to 150 percent, 100 percent and 100 percent, respectively, of each executive's annual base salary, as then in effect, upon the approval by Food and Drug Administration of the commercial sale of PolyHeme® in the United States. Our compensation committee may also approve cash bonuses from time to time for our other executive officers. The timing and amount of these bonus payments are based upon recommendations from our Chief Executive Officer and are not determined pursuant to a formal bonus plan or policy.

We grant stock options and make restricted stock awards to our executive officers in order to provide long term incentives and to further align the interests of our senior management with those of our stockholders. In most cases, grants and awards are made subject to vesting requirements of up to four years in order to provide a long term incentive and to ensure continuity in our senior management.

We do not have a formal policy with respect to allocations between current and long term compensation for our executive officers, or with respect to allocations among various forms of long term compensation. In order to help preserve our available capital, we have historically provided a greater proportion of long term incentive compensation to our executive officers in the form of stock option grants and restricted stock awards than through cash bonuses. Tax

and accounting considerations have not been a significant factor in our compensation policies and decisions. Our current practice is to grant stock options and make restricted stock awards annually in June of each year, although special awards may be made in connection with the hiring of new executive officers, promotions of executive officers and in similar circumstances.

Table of Contents

Decisions Relating to Executive Compensation

Our board of directors, based on the recommendation of its compensation committee, authorizes all material compensation plans, policies and agreements in which our executive officers are eligible to participate. The compensation committee is responsible for reviewing and authorizing all compensation paid to our executive officers. Our Chief Executive Officer makes recommendations each year to our compensation committee with respect to the compensation payable to our executive officers.

Our board of directors and compensation committee have not engaged compensation consultants or other advisors in connection with the development of our compensation policies or the determination of the compensation paid to our executive officers. The compensation committee from time to time reviews publicly available information regarding the compensation paid by similar or competitive companies in determining compensation policies and the composition and levels of compensation for our executive officers. The compensation committee has not, however, conducted formal benchmarking with respect to total compensation or any elements of compensation.

Fiscal Year 2008 Compensation

During our 2008 fiscal year, our Chief Executive Officer, Steven A. Gould, M.D., received \$375,900 in base salary, a grant of 100,000 stock options, no cash bonus and no award of restricted stock. The amount and composition of Dr. Gould's compensation during our 2008 fiscal year were determined based principally on compensation levels applicable to the chief executive officers of similar or competitive companies and secondarily on Dr. Gould's prior contributions to Northfield and his high level of experience and involvement with the development and clinical testing of PolyHeme.

During our last completed fiscal year, we granted 375,000 stock options to our named executive officers. We paid no cash bonuses to our named executive officers during our last completed fiscal year. The other benefits provided to our executive officers consist of enhanced life and disability insurance coverage. Executive officers are also eligible for coverage under our general medical and life insurance programs and may participate in our defined contribution 401(k) savings plan on the same terms as other employees.

Certain Tax Considerations

The Budget Reconciliation Act of 1993 amended the Internal Revenue Code to add Section 162(m) which bars a deduction to any publicly held corporation for compensation paid to a covered employee in excess of \$1,000,000 per year. Generally, we intend that compensation paid to covered employees will be deductible to the fullest extent permitted by law. Our stock option plans are intended to qualify under Section 162(m) of the Internal Revenue Code. However, we intend to retain the flexibility necessary to provide total compensation in line with competitive practices, our compensation philosophy and our company's best interests. Accordingly, we may from time to time pay compensation to our executive officers that may not be deductible. There were no amounts that were non-deductible for our 2008 fiscal year.

Compensation Committee Report

The compensation committee of our board of directors has reviewed and discussed the foregoing Compensation Discussion and Analysis and, based on its review and discussion, has recommended to our board of directors that the Compensation Discussion and Analysis be included in this proxy statement.

Submitted by the Compensation Committee
of the Board of Directors

David A. Savner (Chairman)
Bruce S. Chelberg

Table of Contents

The foregoing report does not constitute solicitation material and should not be deemed filed or incorporated by reference into any prior or future filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.

Compensation Information

The following table summarizes all compensation paid for our last three completed fiscal years to our Chief Executive Officer, our Vice President Finance and our three other most highly compensated executive officers.

SUMMARY COMPENSATION TABLE

| Name and Principal Position | Year(1) | Salary (\$) | Bonus (\$) | Stock Awards (\$) | Option Awards (\$)(2) | Nonqualified Non-Deferred Incentive Compensation | | All Other Compensation (\$)(3) | Total (\$) |
|--|---------|----------------|------------|-------------------------|-----------------------------|---|------|---|------------|
| | | | | | | (\$) | (\$) | | |
| Steven A. Gould, M.D. Chairman and Chief Executive Officer | 2008 | 375,900 | 0 | | 602,629 | | | 34,411 | 1,012,940 |
| | 2007 | 365,000 | 100,000 | | 640,746 | | | 42,689 | 1,148,435 |
| | 2006 | 358,896 | 140,000 | | | | | 45,278 | 544,174 |
| Donna O Neill-Mulvihill Vice President Finance | 2008 | 164,800 | 0 | | 28,041 | | | 14,203 | 207,044 |
| | 2007 | 137,865 | 12,825 | | 12,014 | | | 12,459 | 175,163 |
| | 2006(4) | 51,900 | 0 | | | | | 4,919 | 56,819 |
| Jack J. Kogut Senior Vice President Administration | 2008 | 257,500 | 0 | | 311,197 | | | 22,105 | 590,802 |
| | 2007 | 258,750 | 55,000 | | 319,696 | | | 35,497 | 668,943 |
| | 2006 | 279,050 | 88,000 | | | | | 37,787 | 404,837 |
| Robert L. McGinnis Senior Vice President Operations | 2008 | 255,000 | 0 | | 161,297 | | | 16,760 | 433,057 |
| | 2007 | 225,000 | 36,000 | | 144,926 | | | 16,781 | 422,707 |
| | 2006 | 207,085 | 44,000 | | | | | 18,523 | 269,608 |
| Laurel A. Omert, M.D. Chief Medical Officer | 2008 | 249,260 | 0 | | 142,518 | | | 17,405 | 409,183 |
| | 2007 | 242,000 | 35,000 | | 122,756 | | | 19,606 | 419,362 |
| | 2006 | 165,421 | 20,000 | | | | | 11,807 | 197,228 |

- (1) Our fiscal year begins on June 1 and ends on May 31. Our 2008 fiscal year ended May 31, 2008.
- (2) Effective June 1, 2006, we adopted Financial Accounting Standards Board (FASB) Statement No. 123 (revised), Share-Based Payment (SFAS 123R). Among its provisions, SFAS 123R requires us to recognize compensation expense for equity awards over the vesting period based on their grant-date fair value. For this purpose, we estimate the fair value of each option as of the date of grant using the Black-Scholes option pricing model. For equity awards granted after the date of adoption, we amortize share-based compensation expense on a straight-line basis over the vesting term. See Summary of Significant Accounting Policies Stock Based Compensation in the Notes to the Financial Statements contained in our Annual Report on Form 10-K for our fiscal year ended May 31, 2008.
- (3) The indicated amounts represent life insurance premiums paid by Northfield and contributions made by Northfield to the indicated executive officer's 401(k) plan account.

(4) Ms. O Neill-Mulvihill became an employee of Northfield in January 2006.

The following table sets forth all grants of plan-based awards to our named executive officers during our last completed fiscal year.

GRANTS OF PLAN-BASED AWARDS

| Name | Grant Date | Exercise or Base Price of Stock Based Awards | Grant Date Fair Value of Stock and Option Awards(1) |
|-------------------------|------------|---|---|
| Steven A. Gould, M.D. | 07/12/2007 | \$ 1.36 | \$ 109,470 |
| Donna O Neill-Mulvihill | 07/12/2007 | \$ 1.36 | \$ 27,368 |
| Jack J. Kogut | 07/12/2007 | \$ 1.36 | \$ 82,103 |
| Robert L. McGinnis | 07/12/2007 | \$ 1.36 | \$ 82,103 |
| Laurel A. Omert, M.D. | 07/12/2007 | \$ 1.36 | \$ 54,735 |

(1) The fair value of each option grant is estimated on the date of the grant using the Black Scholes option-pricing model.

Table of Contents

The following table sets forth information regarding the stock options and shares of restricted stock held by our named executive officers as of May 31, 2008.

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR END

| Name | Number of Shares Underlying Unexercised Stock Options Exercisable | Option Awards | | | Stock Awards | |
|-------------------------|---|---|-----------------------------|------------------------------|---|---|
| | | Number of Shares Underlying Unexercised Stock Options Unexercisable | Option Exercise Price | Option Expiration Date | Number of Shares That Have Not Vested | Market Value of Shares That Have Not Vested |
| Steven A. Gould, M.D. | 30,000 | | \$ 10.81 | 4/07/2009 | | |
| | 15,000 | | \$ 10.88 | 1/02/2011 | | |
| | 100,000 | | \$ 3.62 | 1/02/2013 | | |
| | 100,000 | | \$ 7.50 | 1/16/2014 | | |
| | 100,000 | 25,000 | \$ 18.55 | 1/28/2015 | | |
| | 50,000 | 50,000 | \$ 12.76 | 1/12/2016 | | |
| Donna O Neill-Mulvihill | | 100,000 | \$ 1.36 | 7/12/2017 | | |
| | 2,500 | 2,500 | \$ 13.42 | 1/01/2016 | | |
| | 6,250 | 18,750 | \$ 3.61 | 3/26/2017 | | |
| Jack J. Kogut | | 25,000 | \$ 1.36 | 7/12/2017 | | |
| | 25,000 | | \$ 10.81 | 4/07/2009 | | |
| | 12,000 | | \$ 10.88 | 1/02/2011 | | |
| | 50,000 | | \$ 5.08 | 10/30/2012 | | |
| | 50,000 | | \$ 7.50 | 1/16/2014 | | |
| | 37,500 | 12,500 | \$ 18.55 | 1/28/2015 | | |
| | 25,000 | 25,000 | \$ 12.76 | 1/12/2016 | | |
| Robert McGinnis | | 75,000 | \$ 1.36 | 7/12/2017 | | |
| | 10,000 | | \$ 10.81 | 4/7/2009 | | |
| | 12,000 | | \$ 15.41 | 9/15/2010 | | |
| | 10,000 | | \$ 14.17 | 9/21/2011 | | |
| | 20,000 | | \$ 5.08 | 10/30/2012 | | |
| | 25,000 | | \$ 5.94 | 11/3/2013 | | |
| | 18,750 | 6,250 | \$ 12.90 | 9/1/2014 | | |
| | 17,500 | 17,500 | \$ 13.05 | 9/29/2015 | | |
| Laurel Omert, M.D. | | 75,000 | \$ 1.36 | 7/2/2017 | | |
| | 18,750 | 6,250 | \$ 18.55 | 1/28/2015 | | |
| | 12,500 | 12,500 | \$ 12.76 | 1/12/2016 | | |
| | | 50,000 | \$ 1.36 | 7/12/2017 | | |

The following table sets forth information with respect to the exercises of stock options and vesting of restricted stock awards held by our named executive officers during our last completed fiscal year.

OPTION EXERCISES AND STOCK VESTED

| Name | Option Awards | | Stock Awards | |
|-------------------------|--|-----------------------------------|---|-------------------------------------|
| | Number of Shares Acquired on Exercise | Value Realized on Exercise | Number of Shares Acquired on Vesting | Value Realized on Vesting(1) |
| Steven A. Gould, M.D. | | | | |
| Donna O Neill-Mulvihill | | | | |
| Jack J. Kogut | | | | |
| Robert L. McGinnis | | | | |
| Laurel A. Omert, M.D. | | | | |

(1) Based on the closing price of Northfield's common stock on the vesting date of the applicable stock award.

Table of Contents

Employment Agreements

We have employment agreements with Steven A. Gould, M.D., our Chief Executive Officer, Jack J. Kogut, our Senior Vice President Administration, Secretary and Treasurer, and Robert L. McGinnis, our Senior Vice President Operations. In accordance with the terms of these employment agreements, during our 2008 fiscal year Dr. Gould, Mr. Kogut and Mr. McGinnis, respectively, received:

base salaries of \$375,900, \$257,500 and \$255,000;

no cash bonuses were paid in fiscal 2008

Dr. Gould, Mr. Kogut and Mr. McGinnis were also permitted to participate in all other employee benefit plans and programs we make available generally to our employees.

In accordance with the terms of their employment agreements, Dr. Gould, Mr. Kogut and Mr. McGinnis may become entitled to annual cash bonuses contingent on achieving certain agreed upon performance goals. The board of directors elected not to adopt performance goals as they relate to bonus payments for officers in fiscal 2008, and accordingly no bonuses were paid to our officers for fiscal 2008. For the 2009 fiscal year, the target bonus payments for Dr. Gould, Mr. Kogut and Mr. McGinnis are 50 percent, 40 percent and 40 percent, respectively, of their annual base salary. For superior performance, the maximum bonus opportunity is 150 percent, 100 percent and 100 percent, respectively, of each executive's annual base salary. The employment agreements also provide for cash bonus payments equal to 150 percent, 100 percent and 100 percent, respectively, of each executive's annual base salary, as then in effect, upon the approval by Food and Drug Administration of the commercial sale of PolyHeme® in the United States.

Indemnification Agreements

We have written indemnification agreements with each of our directors and senior executive officers. These agreements require us to indemnify our directors and senior executive officers to the maximum extent permitted by law and to advance all expenses they may reasonably incur in connection with the defense of any claim or proceeding in which they may be involved as a party or witness. The agreements specify certain procedures and assumptions applicable in connection with requests for indemnification and advancement of expenses and also require us to continue to maintain directors and officers and fiduciary liability insurance for a six-year period following any change in control transaction. The rights provided to our directors and senior executive officers under their indemnification agreements are in addition to any other rights such individuals may have under our restated certificate of incorporation or bylaws, applicable law or otherwise.

Potential Payments Upon Termination or Change in Control

We have entered into agreements and maintain certain plans that require us to provide compensation and benefits to the named executive officers in the event of a termination of their employment or a change in control of Northfield. The amount of the compensation payable to each named executive officer in each situation is indicated in the tables below. We have used estimates where it is not possible to provide a precise dollar amount for the potential payments. The estimates assume that the triggering event took place on May 31, 2008, the last day of our 2008 fiscal year. For purposes of valuing our common stock, we have used the closing price of \$.90 on May 31, 2008, the last business day of our 2008 fiscal year. In each of the tables, we have assumed that all accrued base salary has been paid as of the termination date.

Table of Contents

We are a party to an employment agreement with Steven A. Gould, M.D., our chairman and chief executive officer, dated as of February 25, 2008. The following table describes the potential payments and benefits we are required to provide to Dr. Gould upon the termination of his employment or a change in control of Northfield.

**SUMMARY OF COMPENSATION AND BENEFITS
STEVEN A. GOULD, M.D.**

| Executive Compensation and Benefits | Death or Disability | Termination by Northfield for Cause or by Executive Other Than for Good Reason(1)(2) | Termination by Northfield Other Than for Cause or by Executive for Good Reason | Termination Following Change in Control(3)(4) |
|--|--------------------------------|---|---|--|
| Compensation(5): | | | | |
| Accrued compensation(6) | \$ 93,900 | \$ 93,900 | \$ 93,900 | \$ 93,900 |
| Cashbonus | | | | |
| Lump sum cash payment | | | 751,800 | 1,127,700 |
| Career transition assistance | | | 25,000 | 25,000 |
| Stock options (acceleration of vesting) | | | | |
| Restricted stock (acceleration of vesting) | | | | |
| Benefits: | | | | |
| Medical insurance | | | 10,314 | 15,471 |
| Life insurance | | | 51,471 | 77,207 |
| Other welfare benefits | | | 8,813 | 13,219 |
| 280G tax gross-up payment(7) | | | | |

- (1) Under the terms of Dr. Gould's employment agreement, "cause" is defined to include conviction of any felony or any failure to comply in all material respects with any material term of the employment agreement or the proprietary information and inventions agreement between Northfield and Dr. Gould, which conduct or failure is materially injurious to Northfield, monetarily or otherwise.
- (2) "Good reason" is defined in Dr. Gould's employment agreement to include (i) any change in Dr. Gould's title, a material diminution of his duties or authority, the assignment to him of duties materially inconsistent with his position or the institution of a requirement that he report to any person other than our board of directors, (ii) any diminution in his base salary or a material diminution in his benefits, (iii) the institution of a requirement that he relocate his current principal residence or office at a location other than our principal executive offices or (iv) the failure of our board of directors to nominate Dr. Gould for election as a director, the failure of Dr. Gould to be elected as a director by our, or the removal of Dr. Gould from office as a director, without cause, by vote or consent of our stockholders. "Good reason" is also deemed to exist in the case of any uncured failure by Northfield to comply with any material provision of Dr. Gould's employment agreement or any purported termination of

Dr. Gould's employment by Northfield that is not effected pursuant to the terms of his employment agreement.

- (3) Under Dr. Gould's employment agreement, a change in control of Northfield is deemed to have occurred, subject to certain exceptions, if (i) we consummate any sale, lease, exchange or other transfer of all or substantially all of our assets, (ii) our stockholders approve any plan or proposal of liquidation or dissolution of Northfield, (iii) any consolidation or merger of Northfield is consummated in which Northfield is not the surviving or continuing corporation, or pursuant to which shares of our common stock are converted into cash, securities or other property, (iv) any person or group acquires beneficial ownership of securities representing 15% or more of the combined voting power of our then outstanding voting securities ordinarily having the right to vote for the election of directors or (v) individuals serving on our incumbent board of directors cease for any reason to constitute a majority of our board of directors. In addition, under Dr. Gould's employment agreement, a change in control is deemed to have occurred if our board of directors fails to nominate Dr. Gould for

Table of Contents

election as a director, Dr. Gould is nominated for election as a director but is not elected as a director by our stockholders, or Dr. Gould is removed from office as a director, with or without cause, by vote or consent of our stockholders, if, in each case, such event occurs in connection with any actual or threatened solicitation of proxies by any person or group other than our incumbent board of directors.

- (4) If there is a change in control of Northfield, Dr. Gould's employment will be deemed to have been terminated in connection with the change in control if (i) within 12 months following the date of the change in control Northfield terminates his employment, other than for disability or cause, or Dr. Gould terminates his employment for good reason or (ii) within the 30-day period following the date of the change in control.
- (5) We have entered into a proprietary information and inventions agreement with Dr. Gould relating to the ownership and confidentiality of our intellectual property. Under the terms of Dr. Gould's employment agreement, our obligations to make any severance or other post-employment payments to Dr. Gould will terminate if he materially breaches any material provision of his proprietary information and inventions agreement.
- (6) Dr. Gould's accrued compensation includes his base salary through the date of termination of his employment, the balance of any earned but unpaid bonus, up to a maximum of 60 days of accrued but unused paid time off, all vested benefits under our benefit plans and all benefit continuation and conversion rights as provided under our benefit plans.
- (7) Upon a change in control of Northfield, Dr. Gould may be subject to certain excise taxes pursuant to Section 280G of the Internal Revenue Code. Northfield has agreed to reimburse Dr. Gould for all excise taxes that are imposed under Section 280G and any income and excise taxes that are payable by Dr. Gould as a result of any reimbursements for Section 280G excise taxes. The calculation of the Section 280G gross up amount is based on a Section 280G excise tax rate of 20%, a 35% federal income tax rate, a 1.45% Medicare tax rate and a 3% state income tax rate. A Section 280G gross up payment may be payable in connection with a change in control of Northfield regardless of whether Dr. Gould's employment is terminated.

We are a party to an employment agreement with Jack J. Kogut, our senior vice president administration, secretary and treasurer, dated as of February 25, 2008. The following table describes the potential payments and benefits we are required to provide to Mr. Kogut upon the termination of his employment or a change in control of Northfield.

**SUMMARY OF COMPENSATION AND BENEFITS
JACK J. KOGUT**

| | Termination by Northfield for Cause or by Executive Other Than for Good | Termination by Northfield Other Than for Cause or by Executive for | Termination Following Change in |
|--|--|---|--|
| Executive Compensation and Benefits | Death or Disability Reason(1)(2) | Good Reason | Control(3)(4) |

Compensation(5):

| | | | | | | | | |
|--|----|--------|----|--------|---------|--------|----|---------|
| Accrued compensation(6) | \$ | 64,376 | \$ | 64,376 | \$ | 64,376 | \$ | 64,376 |
| Cash bonus | | | | | | | | |
| Lump sum cash payment | | | | | 515,000 | | | 772,500 |
| Career transition assistance | | | | | 25,000 | | | 25,000 |
| Stock options (acceleration of vesting) | | | | | | | | |
| Restricted stock (acceleration of vesting) | | | | | | | | |

Benefits:

| | | | | | | | | |
|------------------------------|--|--|--|--|--------|--|--|--------|
| Medical insurance | | | | | 25,498 | | | 38,246 |
| Life insurance | | | | | 28,087 | | | 42,130 |
| Other welfare benefits | | | | | 8,813 | | | 13,219 |
| 280G tax gross-up payment(7) | | | | | | | | |

Table of Contents

- (1) Under the terms of Mr. Kogut's employment agreement, "cause" is defined to include conviction of any felony or any failure to comply in all material respects with any material term of the employment agreement or the proprietary information and inventions agreement between Northfield and Mr. Kogut, which conduct or failure is materially injurious to Northfield, monetarily or otherwise.
- (2) "Good reason" is defined in Mr. Kogut's employment agreement to include (i) any change in Mr. Kogut's title, a material diminution of his duties or authority, the assignment to him of duties materially inconsistent with his position or the institution of a requirement that he report to any person other than our chief executive officer, (ii) any diminution in his base salary or a material diminution in his benefits or (iii) the institution of a requirement that he relocate his current principal residence or office at a location other than our principal executive offices. "Good reason" is also deemed to exist in the case of any uncured failure by Northfield to comply with any material provision of Mr. Kogut's employment agreement or any purported termination of Mr. Kogut's employment by Northfield that is not effected pursuant to the terms of his employment agreement.
- (3) Under Mr. Kogut's employment agreement, a "change in control" of Northfield is deemed to have occurred, subject to certain exceptions, if (i) we consummate any sale, lease, exchange or other transfer of all or substantially all of our assets, (ii) our stockholders approve any plan or proposal of liquidation or dissolution of Northfield, (iii) any consolidation or merger of Northfield is consummated in which Northfield is not the surviving or continuing corporation, or pursuant to which shares of our common stock are converted into cash, securities or other property, (iv) any person or group acquires beneficial ownership of securities representing 15% or more of the combined voting power of our then outstanding voting securities ordinarily having the right to vote for the election of directors or (v) individuals serving on our incumbent board of directors cease for any reason to constitute a majority of our board of directors.
- (4) If there is a "change in control" of Northfield, Mr. Kogut's employment will be deemed to have been terminated in connection with the change in control if (i) within 12 months following the date of the change in control Northfield terminates his employment, other than for disability or cause, or Mr. Kogut terminates his employment for good reason or (ii) within the 30-day period following the date of the change in control.
- (5) We have entered into a proprietary information and inventions agreement with Mr. Kogut relating to the ownership and confidentiality of our intellectual property. Under the terms of Mr. Kogut's employment agreement, our obligations to make any severance or other post-employment payments to Mr. Kogut will terminate if he materially breaches any material provision of his proprietary information and inventions agreement.
- (6) Mr. Kogut's accrued compensation includes his base salary through the date of termination of his employment, the balance of any earned but unpaid bonus, up to a maximum of 60 days of accrued but unused paid time off, all vested benefits under our benefit plans and all benefit continuation and conversion rights as provided under our benefit plans.
- (7) Upon a change in control of Northfield, Mr. Kogut may be subject to certain excise taxes pursuant to Section 280G of the Internal Revenue Code. Northfield has agreed to reimburse Mr. Kogut for all excise taxes that are imposed under Section 280G and any income and excise taxes that are payable by Mr. Kogut as a result of any reimbursements for Section 280G excise taxes. The calculation of the Section 280G gross up amount is based on a Section 280G excise tax rate of 20%, a 35% federal income tax rate, a 1.45% Medicare tax rate and a 3% state income tax rate. A Section 280G gross up payment may be payable in connection with a change in control of Northfield regardless of whether Mr. Kogut's employment is terminated.

We are a party to an employment agreement with Robert L. McGinnis, our senior vice president operations, dated as of February 25, 2008. The following table describes the potential payments and benefits we are required to provide to Mr. McGinnis upon the termination of his employment or a change in control of Northfield.

Table of Contents

**SUMMARY OF COMPENSATION AND BENEFITS
ROBERT L. MCGINNIS**

| Executive Compensation and Benefits | Death or Disability | Termination by Northfield for Cause or by Executive Other Than for Good Reason(1)(2) | Termination by Northfield Other Than for Cause or by Executive for Good Reason | Termination Following Change in Control(3)(4) |
|--|--------------------------------|---|---|--|
| Compensation(5): | | | | |
| Accrued compensation(6) | \$ 37,799 | \$ 37,799 | \$ 37,799 | \$ 37,799 |
| Cash bonus | | | | |
| Lump sum cash payment | | | 510,000 | 765,000 |
| Career transition assistance | | | 25,000 | 25,000 |
| Stock options (acceleration of vesting) | | | | |
| Restricted stock (acceleration of vesting) | | | | |
| Benefits: | | | | |
| Medical insurance | | | 25,498 | 38,246 |
| Life insurance | | | 12,371 | 18,556 |
| Other welfare benefits | | | 3,110 | 4,666 |
| 280G tax gross-up payment(7) | | | | 314,993 |

- (1) Under the terms of Mr. McGinnis's employment agreement, "cause" is defined to include conviction of any felony or any failure to comply in all material respects with any material term of the employment agreement or the proprietary information and inventions agreement between Northfield and Mr. McGinnis, which conduct or failure is materially injurious to Northfield, monetarily or otherwise.
- (2) "Good reason" is defined in Mr. McGinnis's employment agreement to include (i) any change in Mr. McGinnis's title, a material diminution of his duties or authority, the assignment to him of duties materially inconsistent with his position or the institution of a requirement that he report to any person other than our chief executive officer, (ii) any diminution in his base salary or a material diminution in his benefits or (iii) the institution of a requirement that he relocate his current principal residence or office at a location other than our principal executive offices. "Good reason" is also deemed to exist in the case of any uncured failure by Northfield to comply with any material provision of Mr. McGinnis's employment agreement or any purported termination of Mr. McGinnis's employment by Northfield that is not effected pursuant to the terms of his employment agreement.
- (3) Under Mr. McGinnis's employment agreement, a "change in control" of Northfield is deemed to have occurred, subject to certain exceptions, if (i) we consummate any sale, lease, exchange or other transfer of all or

substantially all of our assets, (ii) our stockholders approve any plan or proposal of liquidation or dissolution of Northfield, (iii) any consolidation or merger of Northfield is consummated in which Northfield is not the surviving or continuing corporation, or pursuant to which shares of our common stock are converted into cash, securities or other property, (iv) any person or group acquires beneficial ownership of securities representing 15% or more of the combined voting power of our then outstanding voting securities ordinarily having the right to vote for the election of directors or (v) individuals serving on our incumbent board of directors cease for any reason to constitute a majority of our board of directors.

- (4) If there is a change in control of Northfield, Mr. McGinnis's employment will be deemed to have been terminated in connection with the change in control if (i) within 12 months following the date of the change in control Northfield terminates his employment, other than for disability or cause, or Mr. McGinnis terminates his employment for good reason or (ii) within the 30-day period following the date of the change in control.
- (5) We have entered into a proprietary information and inventions agreement with Mr. McGinnis relating to the ownership and confidentiality of our intellectual property. Under the terms of Mr. McGinnis's employment

Table of Contents

agreement, our obligations to make any severance of other post-employment payments to Mr. McGinnis will terminate if he materially breaches any material provision of his proprietary information and inventions agreement.

- (6) Mr. McGinnis's accrued compensation includes his base salary through the date of termination of his employment, the balance of any earned but unpaid bonus, up to a maximum of 60 days of accrued but unused paid time off, all vested benefits under our benefit plans and all benefit continuation and conversion rights as provided under our benefit plans.
- (7) Upon a change in control of Northfield, Mr. McGinnis may be subject to certain excise taxes pursuant to Section 280G of the Internal Revenue Code. Northfield has agreed to reimburse Mr. McGinnis for all excise taxes that are imposed under Section 280G and any income and excise taxes that are payable by Mr. McGinnis as a result of any reimbursements for Section 280G excise taxes. The calculation of the Section 280G gross up amount is based on a Section 280G excise tax rate of 20%, a 35% federal income tax rate, a 1.45% Medicare tax rate and a 3% state income tax rate. A Section 280G gross up payment may be payable in connection with a change in control of Northfield regardless of whether Mr. McGinnis's employment is terminated.

We are a party to substantially identical agreements to continue employment and severance protection agreements with each of Donna O Neill-Mulvihill, our vice president finance and Laurel A. Olmert, M.D., our chief medical officer. The following table describes the potential payments and benefits we are required to provide to Ms. O Neill-Mulvihill and Dr. Omert upon the termination of their employment, if termination is prior to December 31, 2008, or in the event of a change in control of Northfield. The severance protection agreements provide for payments and the continuation of benefits if the executive officer's employment terminates under certain circumstances within 24 months following a change in control of Northfield.

**SUMMARY OF COMPENSATION AND BENEFITS
DONNA O NEILL-MULVIHILL**

| Executive Compensation and Benefits | Termination Prior 12/31/2008 | Termination Following Change in Control(1)(2) |
|--|---|--|
| Compensation: | | |
| Accrued compensation(3) | \$ 9,609 | \$ 9,609 |
| Cash bonus | | |
| Lump sum cash payment | 164,800 | 164,800 |
| Medical insurance | | 12,749 |
| Life insurance | | |

- (1) If there is a change in control of Northfield, Ms. O Neill-Mulvihill is entitled to benefits under the severance protection agreement if within 24 months following the date of the change in control Northfield terminates her employment, other than for disability or cause, or if Ms. O Neill-Mulvihill terminates her employment for good reason.
- (2) Under each of the executive severance agreements, a change in control of Northfield is deemed to have occurred, subject to certain exceptions, if (i) we consummate any sale, lease, exchange or other transfer of all or

substantially all of our assets, (ii) our stockholders approve any plan or proposal of liquidation or dissolution of Northfield, (iii) any consolidation or merger of Northfield is consummated in which Northfield is not the surviving or continuing corporation, or pursuant to which shares of our common stock are converted into cash, securities or other property, (iv) any person or group acquires beneficial ownership of securities representing 15% or more of the combined voting power of our then outstanding voting securities ordinarily having the right to vote for the election of directors or (v) individuals serving on our incumbent board of directors cease for any reason to constitute a majority of our board of directors. Under the terms of each of the severance protection agreements, cause is defined to include conviction of any felony or any failure to comply in all material respects with any material term of the proprietary information and inventions agreement between Northfield and the executive officer, which conduct or failure is materially injurious to Northfield, monetarily or otherwise. Cause is defined to include conviction of any felony or any failure to comply in all material respects with any material term of the employment agreement or the proprietary information and inventions agreement between Northfield and the executive officer, which conduct or failure is materially injurious to Northfield, monetarily or otherwise.

Good

Table of Contents

reason is defined in each of the severance protection agreements to include (i) the reassignment of the executive officer to position of lesser rank or status or to a location other than the locations of Northfield's corporate headquarters or pilot manufacturing facility, (ii) the reduction in the executive officer's annual base salary or (iii) the material reduction in the executive officer's employment benefits.

- (3) Accrued compensation includes all earned but not paid compensation, including accrued vacation pay, due to Ms. O'Neill-Mulvihill through the date of her termination of employment.

**SUMMARY OF COMPENSATION AND BENEFITS
LAUREL A. OMERT, M.D.**

| Executive Compensation and Benefits | Termination Prior 12/31/2008 | Termination Following Change in Control(1)(2) |
|--|---|--|
| Compensation: | | |
| Accrued compensation(3) | \$ 30,306 | \$ 30,306 |
| Cash bonus | | |
| Lump sum cash payment | 249,260 | 249,260 |
| Medical insurance | | 5,157 |
| Life insurance | | |
| Other welfare benefits | | |

- (1) If there is a change in control of Northfield, Dr. Olmert is entitled to benefits under the severance protection agreement if within 24 months following the date of the change in control Northfield terminates her employment, other than for disability or cause, or Dr. Olmert terminates her employment for good reason.
- (2) The definitions of change in control, cause and good reason in Dr. Olmert's severance protection agreement are the same as those described above with respect to our severance protection agreement with Ms. O'Neill-Mulvihill.
- (3) Accrued compensation includes all monies earned but not paid as well as accrued vacation pay, earned but not taken by Dr. Olmert through the date of her termination of employment.

Securities Authorized for Issuance Under Equity Compensation Plans

We currently have four equity compensation plans under which shares of our common stock are authorized for issuance. The following table sets forth certain information regarding our existing equity compensation plans as of May 31, 2008, the end of our last completed fiscal year.

| Plan Category | Equity Compensation Plan Information | | Number of Shares Remaining Available for Future Issuance Under |
|----------------------|---|---|---|
| | Number of Shares to be Issued Upon Exercise of | Weighted-Average Exercise Price of Outstanding Stock Options | |

| | Outstanding Stock Options | | Equity Compensation Plans(1) | |
|--|--------------------------------------|----|---|---------|
| Equity compensation plans approved by stockholders | 1,609,000 | \$ | 8.30 | 526,000 |
| Equity compensation plans not approved by stockholders | 481,125 | | 8.37 | |
| Total | 2,090,125 | \$ | 8.32 | |

(1) The grant of additional options is prohibited under our stock option plans other than the Northfield Laboratories Inc. 2003 Equity Compensation Plan and the New Employee Stock Option Plan.

Our existing equity compensation plans provide for the grant of stock options and, in the case of the Northfield Laboratories Inc. 2003 Equity Compensation Plan, restricted stock, stock appreciation rights and other forms of equity compensation. Individual grants to directors, officers and employees under our plans have generally been

Table of Contents

made pursuant to individual grant agreements that contain additional terms and conditions, such as vesting requirements and restrictions on exercise of the granted options after termination of employment. The compensation committee of our board of directors acts as the administrator of each of our equity compensation plans.

The Northfield Laboratories Inc. 1996 Stock Option Plan provides for the granting of stock options to purchase up to 500,000 shares of common stock to directors, officers, key employees and consultants. As of May 31, 2008, options to purchase a total of 105,500 shares of common stock at prices between \$10.66 and \$15.41 were outstanding under the 1996 plan. These options expire between 2009 and 2010, ten years after the date of grant. This plan has lapsed but outstanding options remain in effect.

The Northfield Laboratories Inc. 1999 Stock Option Plan was established effective June 1, 1999. The 1999 plan provides for the granting of stock options to purchase up to 500,000 shares of common stock to directors, officers, key employees and consultants. As of May 31, 2008, options to purchase a total of 275,625 shares of common stock at prices between \$3.62 and \$14.17 were outstanding under the 1999 plan. These options expire between 2011 and 2013, ten years after the date of grant. This plan is no longer issuing options.

The Northfield Laboratories Inc. New Employee Stock Option Plan was established effective January 1, 2003. The new employee plan provides for the granting of stock options to purchase up to 350,000 shares of common stock to newly-hired employees. As of May 31, 2008, options to purchase a total of 55,000 shares common stock at prices between \$3.62 and \$18.55 per share were outstanding under the new employee plan. These options expire between 2013 and 2016, ten years after the date of grant.

Our Nonqualified Stock Option Plan for Outside Directors provides for the granting of stock options to purchase up to 200,000 shares of common stock to directors who are neither employees of nor consultants to Northfield and who were not directors on June 1, 1994. As of May 31, 2008, options to purchase a total of 45,000 shares of common stock at prices between \$4.09 and \$11.18 per share were outstanding under this plan. These options expire between 2011 and 2012. This plan is no longer issuing options.

The Northfield Laboratories Inc. 2003 Equity Compensation Plan provides for the granting of stock options, restricted stock, stock appreciation rights and other forms of equity compensation to our non-employee directors, employees and consultants. As of May 31, 2008, there were no restricted stock awards covering shares of common stock outstanding under this plan. As of May 31, 2008, options to purchase a total of 1,609,000 shares of common stock at prices between \$1.36 and \$18.55 per share were outstanding under this plan. These options expire between 2013 and 2017.

Employee Benefit Plans

We sponsor a defined contribution 401(k) savings plan covering each of our employees satisfying certain minimum length of service requirements. We make discretionary contributions to this plan subject to certain maximum contribution limitations. Our expenses incurred under this plan for the years ended May 31, 2008, 2007 and 2006 were \$275,461, \$269,020 and \$248,112, respectively.

Compensation Committee Interlocks and Insider Participation

The compensation committee of the board of directors consists of Messrs. Savner (Chairman) and Chelberg. Neither of the members of the compensation committee is a current or former Northfield officer or employee or was a party to any disclosable related party transaction involving Northfield during our 2008 fiscal year.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934 requires that our directors, executive officers and persons who beneficially own more than 10% of our common stock file with the Securities and Exchange Commission initial reports of beneficial ownership of the common stock and reports of changes in their beneficial ownership.

To our knowledge, based solely upon a review of copies of reports furnished to us and written representations that no other reports were required during the fiscal year ended May 31, 2008, our officers, directors and greater than 10% beneficial owners complied during our last fiscal year with all applicable Section 16(a) filing requirements.

Table of Contents

AUDIT COMMITTEE REPORT

Our audit committee has (i) reviewed and discussed our audited financial statements with management, (ii) discussed with our independent auditors the matters required to be discussed by SAS 61 (Codification of Statements of Auditing Standards, AU Section 380), as amended, (iii) received the written disclosures and the letter from our independent accountants required by Independence Standards Board Standard No. 1 (Independence Standards Board No. 1, Independence Discussions with Audit Committees), as amended, and (iv) discussed with our independent accountants the accountants' independence. Based on the review and discussions referred to above, the audit committee has recommended to our board of directors that our audited financial statements be included in its Annual Report on Form 10-K for the fiscal year ended May 31, 2008 for filing with the Securities and Exchange Commission.

Members of the Audit Committee

John F. Bierbaum (Chairman)
Alan L. Heller
Edward C. Wood, Jr.

The foregoing report does not constitute solicitation material and should not be deemed filed or incorporated by reference into any prior or future filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.

Table of Contents**SECURITY OWNERSHIP OF PRINCIPAL
STOCKHOLDERS AND MANAGEMENT**

The following table sets forth information known to us with respect to the beneficial ownership of our common stock as of July 31, 2008, for (i) each of our current executive officers named under Management Executive Officers, (ii) each of our current directors, (iii) each other person who is known by us to be the beneficial owner of more than five percent of our outstanding common stock and (iv) all of our current directors and executive officers as a group. Except as otherwise indicated, the address of each person named in the following table is c/o Northfield Laboratories Inc., 1560 Sherman Avenue, Suite 1000, Evanston, Illinois 60201-4800.

| Name of Stockholder | Number of Shares | Percentage Beneficially Owned(1) |
|--|---------------------|--|
| Steven A. Gould, M.D. | 965,908(2) | 3.4% |
| Jack J. Kogut | 314,310(3) | 1.1% |
| Marc D. Doubleday | 148,250(4) | * |
| George A. Hides | 77,750(5) | * |
| Robert L. McGinnis | 165,750(6) | * |
| Laurel Omert, M.D. | 56,250(7) | * |
| Donna O Neill-Mulvihill | 23,250(8) | * |
| Sophia Twaddell | 94,000(9) | * |
| John Bierbaum | 68,236(10) | * |
| Bruce S. Chelberg | 68,236(11) | * |
| Alan L. Heller | 39,840(12) | * |
| Paul M. Ness, M.D. | 68,236(13) | * |
| David A. Savner | 70,236(14) | * |
| Edward C. Wood, Jr. | 44,569(15) | * |
| All Directors and Executive Officers as a Group (14 persons) | | |
| PepsiAmericas, Inc. 60 South Sixth Street Suite 3880 Minneapolis, Minnesota 55402 | 1,502,345(16) | 5.3% |

* Less than one percent

(1) Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission and generally includes voting or investment power with respect to securities. Shares of common stock subject to stock options and warrants currently exercisable or exercisable within 60 days are deemed outstanding for computing the percentage ownership of the person holding the options and the percentage ownership of any group of which the holder is a member, but are not deemed outstanding for computing the percentage ownership of any other person. Except as indicated by footnote, and subject to community property laws where applicable, the persons named in the table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them.

(2)

Includes 420,000 shares of common stock which Dr. Gould is entitled to acquire pursuant to stock options currently exercisable or exercisable within 60 days. Also includes 474,630 shares held in a personal trust and 43,820 shares held in a family trust. Does not include 125,000 shares acquirable pursuant to stock options not currently exercisable or exercisable within 60 days.

- (3) Includes 237,000 shares of common stock which Mr. Kogut is entitled to acquire pursuant to stock options currently exercisable or exercisable within 60 days. Also includes 64,805 shares held in a personal trust. Does not include 75,000 shares acquirable pursuant to stock options not currently exercisable or exercisable within 60 days.

Table of Contents

- (4) Includes 145,750 shares of common stock which Mr. Doubleday is entitled to acquire pursuant to stock options currently exercisable or exercisable within 60 days. Does not include 43,750 shares acquirable pursuant to stock options not currently exercisable or exercisable within 60 days.
- (5) Includes 76,750 shares of common stock which Mr. Hides is entitled to acquire pursuant to stock options currently exercisable or exercisable within 60 days. Does not include 43,750 shares acquirable pursuant to stock options not currently exercisable or exercisable within 60 days.
- (6) Includes 165,750 shares of common stock which Mr. McGinnis is entitled to acquire pursuant to stock options currently exercisable or exercisable within 60 days. Does not include 61,250 shares acquirable pursuant to stock options not currently exercisable or exercisable within 60 days.
- (7) Includes 56,250 shares of common stock which Dr. Omert is entitled to acquire pursuant to stock options currently exercisable or exercisable within 60 days. Does not include 43,750 shares acquirable pursuant to stock options not currently exercisable or exercisable within 60 days.
- (8) Includes 21,250 shares of common stock which Ms. O Neill-Mulvihill is entitled to acquire pursuant to stock options currently exercisable or exercisable within 60 days. Does not include 33,750 shares acquirable pursuant to stock options not currently exercisable or exercisable within 60 days.
- (9) Includes 91,250 shares of common stock which Ms. Twaddell is entitled to acquire pursuant to stock options currently exercisable or exercisable within 60 days. Does not include 43,750 shares acquirable pursuant to stock options not currently exercisable or exercisable within 60 days.
- (10) Includes 55,000 shares of common stock which Mr. Bierbaum is entitled to acquire pursuant to stock options currently exercisable or exercisable within 60 days. Does not include any shares acquirable pursuant to stock options not currently exercisable or exercisable within 60 days.
- (11) Includes 55,000 shares of common stock which Mr. Chelberg is entitled to acquire pursuant to stock options currently exercisable or exercisable within 60 days. Does not include any shares acquirable pursuant to stock options not currently exercisable or exercisable within 60 days.
- (12) Includes 30,000 shares of common stock which Mr. Heller is entitled to acquire pursuant to stock options currently exercisable or exercisable within 60 days. Does not include any shares acquirable pursuant to stock options not currently exercisable or exercisable within 60 days.
- (13) Includes 55,000 shares of common stock which Dr. Ness is entitled to acquire pursuant to stock options currently exercisable or exercisable within 60 days. Does not include any shares acquirable pursuant to stock options not currently exercisable or exercisable within 60 days.
- (14) Includes 55,000 shares of common stock which Mr. Savner is entitled to acquire pursuant to stock options currently exercisable or exercisable within 60 days.
- (15) Includes 30,000 shares of common stock which Mr. Wood is entitled to acquire pursuant to stock options currently exercisable or exercisable within 60 days.
- (16) Based on information reported in the Schedule 13G filed with the Securities and Exchange Commission by PepsiAmerica. Inc.

Table of Contents**Item 2. RATIFICATION OF APPOINTMENT OF INDEPENDENT PUBLIC ACCOUNTANTS**

The audit committee of our board of directors has selected KPMG LLP as Northfield's independent auditors for the fiscal year ending May 31, 2009 and has further directed that the selection of independent auditors be submitted for approval by our stockholders at the annual meeting. KPMG has served as Northfield's independent auditors since 1985. The audit committee believes that KPMG is knowledgeable about our operations and accounting practices and is qualified to act in the capacity of our principal independent auditors.

During our fiscal 2007 and 2008 fiscal years, the following fees were billed to us by KPMG:

| | 2007 | 2008 |
|---------------------------|-------------|-------------|
| <i>Audit Fees</i> | \$ 393,100 | \$ 330,000 |
| <i>Audit Related Fees</i> | | |
| Tax Fees | 17,500 | 12,000 |
| <i>All Other Fees</i> | 13,000 | 7,320 |

Audit fees consist of fees billed for professional services rendered for the audit of Northfield's financial statements and review of the interim financial statements included in quarterly filings and services that are normally provided by KPMG in connection with statutory and regulatory filings or engagements, except those not required by statute or regulation.

Audit-related fees consist of fees billed for assurance and related services that are reasonably related to the performance of the audit or review of Northfield's financial statements and are not reported under Audit Fees. These services include accounting consultations and attest services related to financial reporting that are not required by statute or regulation and consultations concerning financial accounting and reporting standards.

Tax fees consist of fees billed for professional services related to federal and state tax compliance, tax advice and assistance with tax audits and appeals.

The audit committee considered whether the non-audit services rendered by KPMG were compatible with maintaining KPMG's independence as auditors of our financial statements, and concluded that they were. The audit committee has adopted a written pre-approval policy with respect to the services provided to us by our auditors. A copy of this policy is available on our Internet website as described above under Corporate Governance and Website Information. All of the services provided to us by our auditors during our 2007 and 2008 fiscal years were approved by our audit committee.

We expect a representative of KPMG to attend the annual meeting. The representative will have an opportunity to make a statement if he or she desires and also will be available to respond to appropriate questions. If the selection of KPMG is not approved by the stockholders, our board of directors will consider such a vote as advice to select other independent auditors for the 2010 fiscal year, rather than the 2009 fiscal year, because of the difficulty and expense involved in changing independent auditors on short notice.

The board of directors recommends a vote **FOR** ratification of the appointment of KPMG as independent auditors for fiscal 2009.

**Item 3. APPROVAL OF AMENDMENT TO THE NORTHFIELD LABORATORIES INC. 2003 EQUITY
COMPENSATION PLAN**

At Northfield's 2003 annual meeting, our stockholders approved the Northfield Laboratories Inc. 2003 Equity Compensation Plan. The 2003 plan was subsequently amended at Northfield's 2005 annual meeting to increase the number of shares available under the plan from 750,000 to 2,250,000 shares.

The board of directors has adopted an amendment to the 2003 plan that would further increase the number of shares of common stock available for awards under the plan from 2,250,000 to 4,000,000 shares and increase the annual limits on the number of shares that may be awarded to participants under the 2003 plan. The board of directors is recommending that stockholders approve these amendments to the 2003 plan at the annual meeting. We believe that the continued availability of shares for awards under the 2003 plan will be integral to our continuing

Table of Contents

efforts to attract and retain qualified employees, non-employee directors and consultants while continuing to preserve our financial resources.

As of July 31, 2008, a total of 1,609,000 stock options were outstanding under the 2003 plan and our other equity compensation plans. If all of these outstanding stock options were exercised, they would represent approximately six percent of our outstanding shares of common stock. Our stock options outstanding as of July 31, 2008 had a weighted average exercise price of \$8.30 per share.

If the proposed amendment to the 2003 plan is approved by Northfield's stockholders, a total of 2,686,000 shares will be available for future awards under the 2003 plan and our New Employee Stock Option Plan, under which option grants are limited to new employees joining Northfield. Each of our other equity compensation plans has been amended to prohibit future awards. If we were to award all of the available shares under the 2003 plan and the New Employee Stock Option Plan, and all of these 4,350,000 outstanding stock options were exercised, the total would represent approximately 17 percent of our outstanding shares of common stock.

The 2003 plan permits stock option grants, stock grants, restricted stock grants, restricted stock unit grants, performance stock grants, performance unit grants, stock appreciation rights grants and cash awards. We refer to awards and grants under the 2003 plan as benefits. Those eligible for benefits under the 2003 plan are referred to as participants. Participants include all employees, consultants and non-employee directors of Northfield.

A summary of the principal features of the 2003 plan is provided below, but is qualified in its entirety by reference to the full text of the 2003 plan that was filed electronically with this proxy statement with the Securities and Exchange Commission and is attached to this proxy statement as *Annex A*. A copy of the 2003 plan is also available from Northfield's Secretary at the address on the cover of this proxy statement.

If Northfield's stockholders approve the proposed reverse stock split described in Item 4 of this proxy statement and our board of directors implements the reverse stock split, the number of shares of common stock available for future issuances under the 2003 plan, as well as the annual individual participant grant limits, will be reduced in proportion to the reverse stock split. In addition, the number of shares subject to our outstanding stock options will be reduced in the same ratio as the reduction in the outstanding shares resulting from the reverse stock split, rounded to the nearest whole share. The per share exercise price of those options also will be increased in direct proportion to the reverse stock split ratio, so that the aggregate dollar amount payable for the purchase of the shares subject to the options will remain unchanged. The summary of the 2003 plan provided below does not reflect the foregoing changes resulting from the proposed reverse stock split.

Shares Available for Issuance

If the proposed amendment to the 2003 plan is approved by Northfield's stockholders, the aggregate number of shares of our common stock that may be issued under the 2003 plan will not exceed 4,000,000.

Administration and Eligibility

The 2003 plan is administered by compensation committee of our board of directors. The committee approves the aggregate benefits and the individual benefits for the most senior elected officers and non-employee directors. The committee may delegate some of its authority under the 2003 plan in accordance with the terms of the 2003 plan.

If the proposed amendment to the 2003 plan is approved by Northfield's stockholders, no participant may receive in any calendar year:

stock options relating to more than 200,000 shares;

restricted stock or restricted stock units that are subject to the attainment of performance goals (as described below) relating to more than 100,000 shares;

stock appreciation rights relating to more than 200,000 shares; or

performance shares relating to more than 100,000 shares.

Table of Contents

No non-employee director may receive in any calendar year stock options relating to more than 100,000 shares or restricted stock units relating to more than 50,000 shares.

Each of the above limits is subject to the adjustment provisions discussed below. The maximum amount that may be earned under performance unit awards by any participant who is a covered employee within the meaning of Section 162(m) of the Code in any calendar year may not exceed \$500,000.

Benefits

Stock Options

Grants of Options

The committee is authorized to grant stock options to participants, or optionees, which may be either incentive stock options, or ISOs, or nonqualified stock options, or NSOs. We refer to NSOs and ISOs collectively as stock options. The exercise price of any stock option must be equal to or greater than the fair market value of the shares on the date of the grant. The term of our stock options cannot exceed 10 years. ISOs may not be granted more than 10 years after the date that the 2003 plan was originally adopted by our board of directors.

For purposes of the 2003 plan, fair market value is determined in a manner that the committee may deem equitable, or as required by applicable law or regulation. Generally, fair market value means the closing price per share for our common stock on the last trading day preceding the day of the transaction, as reported for the Nasdaq Stock Market, Inc. in the *Wall Street Journal*.

Exercisability and Termination

At the time of grant, the committee in its sole discretion determines when options are exercisable and when they expire.

Payment of Option Price

Payment for shares purchased upon exercise of a stock option must be made in full at the time of purchase. Payment may generally be made in cash, by the transfer to Northfield of shares owned by the participant having a fair market value on the date of transfer equal to the option exercise price, or in such other manner as may be authorized by the committee.

SARs

The committee has the authority to grant stock appreciation rights, or SARs, to participants and to determine the number of shares subject to each SAR, the term of the SAR, the time or times at which the SAR may be exercised and all other terms and conditions of the SAR. A SAR is a right, denominated in shares, to receive, upon exercise of the right, in whole or in part, without payment to Northfield an amount, payable in shares, in cash or a combination thereof, that is equal to the excess of the fair market value of our common stock on the date of exercise of the right over the fair market value of our common stock on the date of grant of the right, multiplied by the number of shares for which the right is exercised. The committee also may, in its discretion, substitute SARs which can be settled only in common stock for outstanding stock options at any time when Northfield is subject to fair value accounting. The terms and conditions of any substitute SAR will be substantially the same as those applicable to the stock option that it replaces and the term of the substitute SAR may not exceed the term of the stock option that it replaces.

Restricted Stock and Restricted Stock Units

Restricted stock consists of shares which are transferred or sold by Northfield to a participant, but are subject to substantial risk of forfeiture and to restrictions on their sale or other transfer by the participant. Restricted stock units are the right to receive shares at a future date in accordance with the terms of such grant upon the attainment of certain conditions specified by the committee which include substantial risk of forfeiture and restrictions on their sale or other transfer by the participant.

Table of Contents

The committee determines the eligible participants to whom, and the time or times at which, grants of restricted stock or restricted stock units will be made, the number of shares or units to be granted, the price to be paid, if any, the time or times within which the shares covered by such grants will be subject to forfeiture, the time or times at which the restrictions will terminate, and all other terms and conditions of the grants. Restrictions or conditions could include the attainment of performance goals, as described below, continuous service with Northfield, the passage of time or other restrictions or conditions.

Performance Stock

A participant who is granted performance stock has the right to receive shares or cash or a combination of shares and cash equal to the fair market value of such shares at a future date in accordance with the terms of such grant and upon the attainment of performance goals specified by the committee. The award of performance stock to a participant will not create any rights in such participant as a stockholder of Northfield until the issuance of our common stock with respect to an award.

Performance Units

A participant who is granted performance units has the right to receive a payment in cash upon the attainment of performance goals specified by the committee. The committee may substitute actual shares of our common stock for the cash payment otherwise required to be made pursuant to a performance unit award.

Performance Goals

Awards of restricted stock, restricted stock units, performance stock, performance units and other incentives under the 2003 plan may be made subject to the attainment of performance goals relating to one or more business criteria within the meaning of Section 162(m) of the Code, including the attainment of specified regulatory, scientific or business milestones, increases in the price of our common stock or other goals. Any performance criteria may be used to measure the performance of Northfield as a whole or any business unit of Northfield and may be measured relative to a peer group or index.

Stock Awards

The committee may award shares of our common stock to participants without payment as additional compensation for service to Northfield. Stock awards may be subject to other terms and conditions, which may vary from time to time and among participants, as the committee determines to be appropriate.

Cash Awards

A cash award consists of a monetary payment made by Northfield to a participant as additional compensation for his or her services to Northfield. A cash award may be made in tandem with another benefit or may be made independently of any other benefit. Cash awards may be subject to other terms and conditions, which may vary from time to time and among participants, as the committee determines to be appropriate.

Amendment of the 2003 Plan

Our board of directors or the committee has the right and power to amend the 2003 plan. Neither the board nor the committee, however, may amend the 2003 plan in a manner which would impair or adversely affect the rights of the holder of a benefit without the holder's consent. No material amendment of the 2003 plan may be made without stockholder approval.

Termination of the 2003 Plan

Our board of directors may terminate the 2003 plan at any time. Termination will not in any manner impair or adversely affect any benefit outstanding at the time of termination.

Table of Contents

Committee's Right to Modify Benefits

The committee may grant benefits on terms and conditions different than those specified in the 2003 plan to comply with the laws and regulations of any foreign jurisdiction, or to make the benefits more effective under such laws and regulations. The committee may permit or require a participant to have amounts or shares of our common stock that otherwise would be paid or delivered to the participant as a result of the exercise or settlement of an award under the 2003 plan credited to a deferred compensation or stock unit account established for the participant by the committee on our company's books of account. Neither our board of directors nor the committee may cancel any outstanding stock option for the purpose of reissuing the option to the participant at a lower exercise price, or to reduce the option price of an outstanding option, in each case without obtaining prior stockholder approval.

Change in Control

The committee has the right, in connection with the issuance of benefits to individual participants under the 2003 plan, to include provisions that modify the terms of the benefit upon the occurrence of a change in control of Northfield. These modifications may include, among others, the acceleration of the exercisability of stock options and SARs and the termination of restrictions on shares of restricted stock and restricted stock units. The 2003 plan includes provisions that require the exercise or forfeiture of stock options and SARs in connection with certain change in control transactions. Alternatively, the committee has the option under the 2003 plan to cause the continuing or successor entity following a change in control transaction to assume the obligations of Northfield under the 2003 plan.

Adjustments

If there is any change in our common stock by reason of any stock split, stock dividend, spin-off, split-up, spin-out, recapitalization, merger, consolidation, reorganization, combination or exchange of shares, the total number of shares available for benefits, the maximum number of shares which may be subject to an award in any calendar year and the number of shares subject to outstanding benefits, and the price of each of the foregoing, as applicable, will be equitably adjusted by the committee in its discretion.

Reusage

If a stock option granted under the 2003 plan expires or is terminated, surrendered or canceled without having been fully exercised or if restricted stock, restricted stock units, performance shares or SARs granted under the 2003 plan are forfeited or terminated without the issuance of all of the shares subject thereto, the shares covered by such benefits will again be available for use under the 2003 plan. Shares covered by a benefit granted under the 2003 plan are not counted as used unless and until they are actually issued and delivered to a participant. Any shares of common stock covered by a SAR are counted as used only to the extent shares are actually issued to the participant upon exercise of the SAR. The number of shares that are transferred to Northfield by a participant to pay the exercise or purchase price of a benefit are subtracted from the number of shares issued with respect to such benefit for the purpose of counting shares used. Shares withheld to pay withholding taxes in connection with the exercise or payment of a benefit are not counted as used. Shares covered by a benefit granted under the 2003 plan that is settled in cash are not counted as used.

Federal Income Tax Consequences

We have been advised by counsel that the federal income tax consequences as they relate to benefits are as follows:

NSOs

An optionee does not recognize taxable income upon the grant of an NSO. Upon the exercise of such a stock option, the optionee recognizes ordinary income to the extent the fair market value of the shares received upon exercise of the NSO on the date of exercise exceeds the exercise price. Northfield receives an income tax deduction in an amount equal to the ordinary income that the optionee recognizes upon the exercise of the stock option.

Table of Contents

ISOs

An optionee does not generally recognize taxable income upon the grant or upon the exercise of an ISO. Upon the sale of ISO shares, the optionee recognizes income in an amount equal to the difference, if any, between the exercise price of the ISO shares and the fair market value of those shares on the date of sale. The income is taxed at long-term capital gains rates if the optionee has not disposed of the stock within two years after the date of the grant of the ISO and has held the shares for at least one year after the date of exercise and Northfield is not entitled to a federal income tax deduction. The holding period requirements are waived when an optionee dies. The exercise of an ISO may in some cases trigger liability for the alternative minimum tax. If an optionee sells ISO shares before having held them for at least one year after the date of exercise and two years after the date of grant, the optionee recognizes ordinary income to the extent of the lesser of the gain realized upon the sale or the difference between the exercise price and the fair market value of the shares on the date of exercise. Any additional gain is treated as long-term or short-term capital gain depending upon how long the optionee has held the ISO shares prior to disposition. In the year of disposition, Northfield receives a federal income tax deduction in an amount equal to the ordinary income that the optionee recognizes as a result of the disposition.

Restricted Stock

A participant who receives an award of restricted stock does not generally recognize taxable income at the time of the award. Instead, the participant recognizes ordinary income in the first taxable year in which his or her interest in the shares becomes either freely transferable or no longer subject to substantial risk of forfeiture. The amount of taxable income is equal to the fair market value of the shares less the cash, if any, paid for the shares. A participant may elect to recognize income at the time he or she receives restricted stock in an amount equal to the fair market value of the restricted stock, less any cash paid for the shares, on the date of the award. Northfield receives a compensation expense deduction in an amount equal to the ordinary income recognized by the participant in the taxable year in which restrictions lapse, or in the taxable year of the award if, at that time, the participant had filed a timely election to accelerate recognition of income.

Other Benefits

In the case of an exercise of an SAR or an award of restricted stock units, performance stock, performance units, common stock or cash, the participant will generally recognize ordinary income in an amount equal to any cash received and the fair market value of any shares received on the date of payment or delivery. In that taxable year, Northfield will receive a federal income tax deduction in an amount equal to the ordinary income which the participant has recognized.

Million Dollar Deduction Limit

Northfield may not deduct compensation of more than \$1,000,000 that is paid to an individual who, on the last day of the taxable year, is either our chief executive officer or is among one of the four other most highly-compensated officers for that taxable year as reported in our proxy statement. The limitation on deductions does not apply to certain types of compensation, including qualified performance-based compensation. We believe that benefits in the form of stock options, performance stock, performance units, SARs, performance-based restricted stock and restricted stock units and cash payments under management incentive awards constitute qualified performance-based compensation and, as such, will be exempt from the \$1,000,000 limitation on deductible compensation.

Miscellaneous

A new benefits table is not provided because no grants have been made with respect to the additional shares of common stock proposed to be included under the 2003 plan and all future benefits are discretionary.

If stockholders fail to approve the proposed amendment to the 2003 plan, then the terms of the 2003 plan as currently in effect will continue.

Table of Contents

Required Vote

The affirmative vote of the holders of a majority of the shares of our common stock present in person or by proxy at the annual meeting and entitled to vote on the proposal will be required to approve the amendment of the 2003 plan.

Recommendation of the Board of Directors

Northfield's board of directors unanimously recommends that stockholders vote **FOR** approval of the amendment of the Northfield Laboratories Inc. 2003 Equity Compensation Plan.

Item 4: AMENDMENT TO RESTATED CERTIFICATE OF INCORPORATION TO EFFECT A REVERSE SPLIT OF NORTHFIELD'S COMMON STOCK

General

Our board of directors has unanimously adopted, and recommended that our stockholders approve, an amendment to our restated certificate of incorporation in substantially the form attached as *Annex B* to effect a reverse split of the outstanding shares of our common stock. If our stockholders approve the proposed amendment, our board of directors will have the authority to determine the specific reverse stock split ratio within a range of between three and seven pre-reverse split shares for each post-reverse split share. The specific ratio within this range determined by our board of directors is referred to as the reverse split ratio.

Our board of directors believes that obtaining stockholder approval of an amendment to Northfield's restated certificate of incorporation providing for a range of permitted reverse split ratios, rather than a single specified ratio, will provide the board of directors with appropriate flexibility in reacting to market conditions at the time the reverse stock split is effected and, therefore, is in best interests Northfield and our stockholders.

If stockholders approve the amendment to the restated certificate of incorporation, stockholders will be authorizing our board of directors to effect the reverse stock split by filing the amendment to the restated certificate of incorporation with the Secretary of State of the State of Delaware pursuant to which a number of shares of our outstanding common stock determined in accordance with the reverse split ratio would be combined into one share of our common stock. Although stockholders are being requested to approve an amendment to our restated certificate of incorporation providing for a range of permitted reverse split ratios, only one reverse split of our common stock will be effected if our board of directors determines to proceed with the reverse stock split.

Reasons for the Reverse Stock Split

The primary purpose of the proposed reverse stock split is to increase the bid price of our common stock to regain and maintain compliance with the listing requirements of the Nasdaq Stock Market so that our common stock will not be delisted from the Nasdaq Global Market.

On June 12, 2008, we announced that we received a notification letter from the Nasdaq Stock Market indicating that for 30 consecutive business days preceding the date of the letter, the bid price of shares of our common stock had closed below the \$1.00 per share minimum bid price required for continued inclusion on the Nasdaq Global Market pursuant to Nasdaq Marketplace Rule 4450(a)(5).

We have until December 8, 2008 to regain compliance with Nasdaq's minimum bid price rule. If, at any time prior to December 8, 2008, the bid price of our common stock closes at \$1.00 or more for 10 consecutive business days, we will regain compliance. If we do not regain compliance with the minimum bid price requirement, then Nasdaq will

notify us that our securities will be delisted. At that time, we would have the right to request an additional extension of the compliance period or transfer the listing of our common stock from the Nasdaq Global Market to the Nasdaq Capital Market. Our board of directors considered these options and determined that pursuing the reverse stock split is in the best interests of Northfield and our stockholders. We expect that the reverse stock split will enable our common stock to trade above the \$1.00 minimum bid price requirement.

Table of Contents

Northfield's board of directors believes that maintaining the listing of our common stock on the Nasdaq Global Market is in the best interests of Northfield and our stockholders. Listing on the Nasdaq Global Market increases the liquidity of our common stock and may minimize the spread between the bid and ask prices quoted by market makers. In addition, our board of directors believes that maintaining our Nasdaq Global Market listing may enhance our access to equity capital to fund our future operations.

We also believe that the increased market price of our common stock expected as a result of implementing the reverse stock split will improve the marketability and liquidity of our common stock and may encourage interest and trading in our common stock. Because of the trading volatility often associated with low-priced stocks, many brokerage houses and institutional investors have internal policies and practices that either prohibit them from investing in low-priced stocks or tend to discourage individual brokers from recommending low-priced stocks to their customers. Some of those policies and practices may function to make the processing of trades in low-priced stocks economically unattractive to brokers. The liquidity of our common stock, however, may also be adversely affected by the reverse stock split given the reduced number of shares that would be outstanding after the split.

For the above reasons, Northfield's board of directors believes that the reverse stock split will help regain and maintain compliance with the Nasdaq listing requirements and improve the marketability and liquidity of our common stock and is therefore in the best interests of Northfield and our stockholders.

No assurance can be given, however, that the reverse stock split, if implemented, will have the desired effect of raising the price of our common stock over the long term. The effect the reverse stock split on the market price of our common stock cannot be predicted with any certainty, and the history of reverse stock splits for companies in similar circumstances is varied.

Under applicable Nasdaq rules, in order to regain compliance with the \$1.00 minimum bid price requirement and maintain our listing on the Nasdaq Global Market, the \$1.00 bid price must be maintained for a minimum of 10 consecutive business days. Under Nasdaq rules, however, Nasdaq may in its discretion require us to maintain a bid price of at least \$1.00 per share for a period in excess of 10 consecutive business days, but generally no more than 20 consecutive business days, before determining that we have demonstrated an ability to maintain long-term compliance with the minimum bid price requirement. In determining whether to monitor bid price beyond 10 business days, Nasdaq would consider factors including:

- the margin of compliance (the amount by which the price of our common stock is above the \$1.00 minimum standard);

- trading volume (a lack of trading volume may indicate a lack of bona fide market interest in our common stock at the posted bid price);

- the market maker montage (the number of market makers quoting at or above \$1.00 and the size of their quotes); and

- the trend of our stock price.

Accordingly, there can be no assurance that we will be able to maintain our listing on the Nasdaq Global Market after the reverse stock split is effected or that the market price our common stock after the reverse stock split will exceed or remain in excess of the \$1.00 minimum bid price for a sustained period of time. The market price of our common stock may vary based on other factors which are unrelated to the number of shares outstanding, including our future business and financial performance. There can also be no assurance that our common stock will not be delisted due to a failure to meet other continued listing requirements imposed by Nasdaq, even if after the reverse stock split the

market price per share of our common stock remains above \$1.00.

We reserve the right not to effect the reverse stock split if our board of directors does not deem it to be in the best interests of Northfield and our stockholders.

Effects of the Reverse Stock Split

After the effective date of the proposed reverse stock split, each stockholder will own a reduced number of shares of our common stock. A number of shares of our common stock that a stockholder owns, which will be

Table of Contents

determined by our board of directors within a range of three to seven pre-reverse split shares, will be combined and converted into a single share. We estimate that, following the reverse stock split, we would have approximately the same number of stockholders. Except for any changes as a result of the treatment of fractional shares, as discussed below, the completion of the reverse stock split alone would not affect any stockholder's proportionate equity interest in Northfield. For example, a stockholder who owns a number of shares that, prior to the reverse stock split, represented 1% of our outstanding shares would continue to own 1% of our outstanding shares after the reverse stock split. The reverse stock split may, however, increase the number of stockholders of Northfield who own odd lots of fewer than 100 shares of our common stock. Brokerage commission and other costs of transactions in odd lots are generally higher than the costs of transactions of more than 100 shares of common stock.

Upon effectiveness of the reverse stock split, the number of authorized shares of common stock that are not issued or outstanding or reserved for issuance would increase from approximately 30 million to between approximately 50 million and approximately 55.7 million, depending on the reverse split ratio determined by our board of directors. This increase could, under certain circumstances, have an anti-takeover effect by permitting issuances which would dilute the stock ownership of a person seeking to effect a change in the composition of the board of directors or contemplating a tender offer or other transaction for the combination of Northfield with another company. The reverse stock split is not, however, being proposed in response to any effort of which we are aware to accumulate shares of our common stock or obtain control of us, nor is it part of a plan by management to recommend a series of similar amendments to the board of directors and stockholders.

Other than the reverse stock split, the board of directors does not currently contemplate recommending the adoption of any other amendments to our restated certificate of incorporation that could be construed to affect the ability of third parties to take over or change control of Northfield.

Our board of directors does not intend to use the reverse stock split as a part of or first step in a going private transaction pursuant to Rule 13e-3 under the Securities Exchange Act of 1934.

We are not a party to any current plan, arrangement or understanding with respect to the issuance of additional shares of common stock that would become available as a result of the amendment of our restated certificate of incorporation to effect the reverse stock split. We expect, however, that we will be required to raise additional equity capital in the future to fund our continued operations. We anticipate that our existing financial resources will be adequate to permit us to continue to conduct our business only for the next 11 to 13 months. We will need to raise additional capital to continue our business after this period. Our future capital requirements will depend on many factors, including the timing and outcome of regulatory reviews, administrative and legal expenses, the status of competitive products, the establishment of manufacturing capacity and the establishment of collaborative relationships. We cannot ensure that additional funding will be available or, if it is available, that it can be obtained on terms and conditions we will deem acceptable. Any additional funding derived from the sale of equity securities is likely to result in significant dilution to our existing stockholders.

The table below illustrates, for each number of whole pre-reverse split shares within the permitted range of the reverse split ratio, the approximate percentage reduction in the outstanding shares of common stock as a result of the reverse stock split, the approximate number of shares of common stock that would remain outstanding following the reverse stock split, and the approximate number of shares of common stock that would remain authorized but unissued following the reverse stock split. The information in the following table is based on the 29,164,059 shares of common stock outstanding as of May 31, 2008.

**Post-Split
Common**

| Reverse Split Ratio | Percentage Reduction in the Outstanding Shares of Common Stock | Common Stock Outstanding after the Reverse | Stock to be Authorized but Unissued after the Reverse Stock Split |
|----------------------------|---|---|--|
| 3 to 1 | 67% | 9,721,353 | 50,278,647 |
| 4 to 1 | 75% | 7,291,015 | 52,708,985 |
| 5 to 1 | 80% | 5,832,812 | 54,167,188 |
| 6 to 1 | 83% | 4,860,677 | 55,139,324 |
| 7 to 1 | 86% | 4,166,294 | 55,833,706 |

Table of Contents

Treatment of Fractional Shares

No fractional shares of common stock will be issued as a result of the reverse stock split. Instead, stockholders who otherwise would be entitled to receive a fractional share of our common stock as a consequence of the reverse stock split, upon surrender to the exchange agent of the certificates representing such fractional shares, will instead be entitled to receive cash in an amount equal to the product obtained by multiplying (i) the closing sale price of our common stock on the business day immediately preceding the effective date of the reverse stock split as reported on the Nasdaq Global Market by (ii) the number of shares of our common stock held by the stockholder that would otherwise have been exchanged for the fractional share interest.

Effect of the Reverse Stock Split on Stock Options

The number of shares subject to our outstanding stock options will be reduced in the same ratio as the reduction in the outstanding shares resulting from the reverse stock split, rounded to the nearest whole share (with no cash payment for a partial share). The per share exercise price of those options also will be increased in direct proportion to the reverse stock split ratio, so that the aggregate dollar amount payable for the purchase of the shares subject to the options will remain unchanged (subject to the rounding of shares). For example, if an optionee holds options to purchase 3,000 shares at an exercise price of \$1.00 per share, and our board of directors determines a reverse split ratio of three to one, upon the effectiveness of the reverse stock split, the number of shares subject to that option would be reduced to 1,000 shares and the exercise price would be proportionally increased to \$3.00 per share.

In addition, pursuant to the proposed reverse stock split, the number of shares of common stock available for future issuances under the Northfield Laboratories Inc. 2003 Equity Compensation Plan, as well as the annual grant limits, will be reduced in proportion to the reverse stock split.

Exchange of Stock Certificates

The combination of, and reduction in, the number of our outstanding shares as a result of the reverse stock split will occur automatically on the date that the amendment to our restated certificate of incorporation effectuating the reverse stock split is filed with the Secretary of State of the State of Delaware, without any action on the part of our stockholders and without regard to the date that stock certificates representing the shares prior to the reverse stock split are physically surrendered for new stock certificates.

As soon as practicable after the effective date of the reverse stock split, transmittal forms will be mailed to each holder of record of certificates for shares of our common stock to be used in forwarding such certificates for surrender and exchange for certificates representing the number of shares of our common stock such stockholder is entitled to receive as a result of the reverse stock split. Our transfer agent will act as exchange agent for purposes of implementing the exchange of the stock certificates. The transmittal forms will be accompanied by instructions specifying other details of the exchange. Upon receipt of the transmittal form, each stockholder should surrender the certificates representing shares of our common stock prior to the reverse stock split in accordance with the applicable instructions. Each stockholder who surrenders certificates will receive new certificates representing the whole number of shares of our common stock that the stockholder holds as a result of the reverse stock split. No new certificates will be issued until the stockholder has surrendered such stockholder's outstanding certificates) together with the properly completed and executed transmittal form to the exchange agent. **Stockholders should not destroy any stock certificates and should not submit their stock certificates until they receive a transmittal form from our transfer agent.**

Accounting Consequences

The par value per share of our common stock would remain unchanged at \$0.01 per share after the reverse stock split. As a result, on the effective date of the reverse stock split, the stated capital on our balance sheet attributable to the common stock will be reduced proportionally, based on the exchange ratio of the reverse stock split, from its present amount, and the additional paid-in capital account shall be credited with the amount by which the stated capital is reduced. The amounts of net income or loss per common share and net book value per common share will be increased because there will be fewer shares of our common stock outstanding. We do not anticipate that any other accounting consequences would arise as a result of the reverse stock split.

Table of Contents

Certain Material United States Federal Income Tax Consequences

The following is a summary of important tax considerations of the reverse stock split. It addresses only stockholders who hold our common stock as a capital asset. It does not purport to be complete and does not address stockholders subject to special rules, such as financial institutions, tax-exempt organizations, insurance companies, dealers in securities, foreign stockholders, stockholders who hold their pre-reverse stock split shares as part of a straddle, hedge or conversion transaction, and stockholders who acquired their pre-reverse stock split shares pursuant to the exercise of employee stock options or otherwise as compensation. This summary is based upon current law, which may change, possibly even retroactively. In addition, this summary does advisor with respect to the effects of the reverse stock split.

A stockholder generally will not recognize gain or loss resulting from the reverse stock split, except to the extent of cash, if any, received in lieu of any fractional share interest. The aggregate tax basis of the post-reverse stock split shares received will be equal to the aggregate tax basis of the pre-reverse stock split shares exchanged therefor (excluding any portion of the holder's basis allocated to fractional shares) and the holding period of the post-reverse stock split shares received will include the holding period of the pre-reverse stock split shares exchanged.

A holder of the pre-reverse stock split shares who receives cash will generally be treated as having exchanged a fractional share interest for cash in a redemption by Northfield. The amount of any gain or loss will be equal to the difference between the portion of the tax basis of the pre-reverse stock split shares allocated to the fractional share interest and the cash received.

No Appraisal Rights

Under the Delaware General Corporation Law, our stockholders are not entitled to appraisal rights with respect to our proposed amendment to our restated certificate of incorporation to effect the reverse stock split, and we will not independently provide our stockholders with any such rights.

Required Vote

The affirmative vote of the holders of at least 80 percent of the shares of our common stock outstanding on the record date will be required to approve the amendment to our restated certificate of incorporation to effect the reverse stock split.

Recommendation of the Board of Directors

Northfield's board of directors unanimously recommends that stockholders that stockholders vote **FOR** the amendment to the restates certificate of incorporation to effect the reverse stock split.

PROCEDURE FOR SUBMITTING STOCKHOLDER PROPOSALS AND NOMINATIONS

Stockholders may present proper proposals for inclusion in Northfield's proxy statement and for consideration at the next annual meeting of our stockholders by submitting their proposals to us in a timely manner. In order to be included in our proxy statement for our next annual meeting, stockholder proposals must be received by us no later than April 22, 2009, and must otherwise comply with the requirements of the applicable rules of the Securities and Exchange Commission.

In addition, our bylaws establish an advance notice procedure with regard to certain matters, including stockholder nominations for director and stockholder proposals not included in our proxy statement, to be brought before any

annual meeting of stockholders. In general, notice must be received by our corporate secretary not less than 60 days nor more than 90 days prior to the date of the annual meeting, except if less than 70 days notice or prior public disclosure of the date of the meeting is given or made to our stockholders, in which event, to be timely, notice by the stockholders must be received no later than the close of business on the tenth day following the date on which notice of the date of the annual meeting was mailed or public disclosure was made. It is currently expected that our 2009 annual meeting of stockholders will be held on or about October 2, 2009. Therefore, the deadline under our

Table of Contents

bylaws for timely submission of director nominations and stockholder proposals for consideration at our 2009 annual meeting is currently expected to be July 27, 2008. Stockholder nominations for director are also required under our bylaws to include certain information regarding the director nominee and the stockholder making the nomination.

All notice of proposals by stockholders, whether or not to be included in our proxy materials, should be sent to Northfield Laboratories Inc., 1560 Sherman Avenue, Suite 1000, Evanston, Illinois 60201-4800, Attention: Corporate Secretary.

GENERAL

The board of directors does not know of any other matters to be presented at the annual meeting. If any additional matters are properly presented, the persons named in the proxy will have discretion to vote in accordance with their own judgment on these matters.

Table of Contents

Annex A

**NORTHFIELD LABORATORIES INC.
2003 EQUITY COMPENSATION PLAN**

AS AMENDED AND RESTATED EFFECTIVE AS OF AUGUST , 2008

1. **Purpose.** The purposes of the Northfield Laboratories Inc. 2003 Equity Compensation Plan (the Plan) are to (a) encourage outstanding individuals to accept or continue service as employees, consultants and directors of Northfield Laboratories Inc. (the Company) and (b) to furnish additional incentives to those persons to achieve the Company s business goals and objectives and to strengthen the mutuality of interest between those persons and the Company s stockholders by providing them stock options and other stock and cash incentives.

2. **Administration.** The Plan will be administered by a Committee (the Committee) of the Company s Board of Directors consisting of two or more directors as the Board may designate from time to time, each of whom will satisfy such requirements as:

- (a) the Securities and Exchange Commission may establish for administrators acting under plans intended to qualify for exemption under Rule 16b-3 or its successor under the Securities Exchange Act of 1934, as amended (the Exchange Act);
- (b) the Nasdaq Stock Market, Inc. may establish pursuant to its rule-making authority; and
- (c) the Internal Revenue Service may establish for outside directors acting under plans intended to qualify for exemption under Section 162(m) of the Internal Revenue Code of 1986, as amended (the Code).

The Committee will have the authority to construe and interpret the Plan and any benefits granted thereunder, to establish and amend rules for plan administration, to change the terms and conditions of options and other benefits at or after grant, and to make all other determinations which it deems necessary or advisable for the administration of the Plan. The determinations of the Committee will be made in its sole discretion in accordance with its judgment as to the best interests of the Company and its stockholders and in accordance with the purposes of the Plan. A majority of the members of the Committee will constitute a quorum, and all determinations of the Committee will be made by a majority of its members. Any determination of the Committee under the Plan may be made without notice or meeting of the Committee, in writing signed by all the Committee members. The Committee may authorize one or more officers of the Company to select employees to participate in the Plan and to determine the number of option shares and other rights to be granted to such participants, except with respect to awards to officers subject to Section 16 of the Exchange Act or officers who are or may become covered employees within the meaning of Section 162(m) of the Code (Covered Employees), and any reference in the Plan to the Committee will include such officer or officers.

3. **Participants.** Participants will consist of all employees, consultants and non-employee directors of the Company. Designation of a participant in any year will not require the Committee to designate that person to receive a benefit in any other year or to receive the same type or amount of benefit as granted to the participant in any other year or as granted to any other participant in any year. The Committee may consider all factors that it deems relevant in selecting participants and in determining the type and amount of their respective benefits.

4. **Shares Available under the Plan.** There is hereby reserved for issuance under the Plan an aggregate of 4,000,000 shares of the Company s Common Stock, par value \$.01 per share (Common Stock). If there is a lapse, expiration, termination or cancellation of any Stock Option issued under the Plan prior to the issuance of shares thereunder or if shares of Common Stock are issued under the Plan and thereafter are reacquired by the Company, the

shares subject to the Stock Option and the reacquired shares will be added to the shares available for benefits under the Plan. Shares covered by a benefit granted under the Plan will not be counted as used unless and until they are actually issued and delivered to a participant. Any shares covered by a Stock Appreciation Right will be counted as used only to the extent shares are actually issued to the participant upon exercise of the right. In addition, any shares of Common Stock exchanged by an optionee as full or partial payment to the Company of the exercise price under any Stock Option exercised under the Plan, any shares retained by the Company pursuant to a participant's tax withholding election, and any shares covered by a benefit which is settled in cash will be added to the shares

Table of Contents

available for benefits under the Plan. All shares issued under the Plan may be either authorized and unissued shares or issued shares reacquired by the Company. Under the Plan, no participant may receive in any calendar year (a) Stock Options relating to more than 200,000 shares, (b) Restricted Stock or Restricted Stock Units that are subject to the attainment of Performance Goals (as defined in Section 12) relating to more than 100,000 shares, (c) Stock Appreciation Rights relating to more than 200,000 shares or (d) Performance Shares relating to more than 100,000 shares. No non-employee director may receive in any calendar year Stock Options relating to more than 100,000 shares or Restricted Stock Units relating to more than 50,000 shares. The shares reserved for issuance and the limitations set forth above will be subject to adjustment in accordance with Section 13. All of the available shares may, but need not, be issued pursuant to the exercise of Incentive Stock Options.

5. Types of Benefits. Benefits under the Plan will consist of Stock Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Performance Stock, Performance Units and Other Stock or Cash Awards, all as described below.

6. Stock Options. Stock Options may be granted to participants, at any time as determined by the Committee. The Committee will determine the number of shares subject to each option and whether the option is an Incentive Stock Option. The option price for each option will be determined by the Committee but will not be less than 100% of the fair market value of the Common Stock on the date the option is granted. Each option will expire at such time as the Committee will determine at the time of grant. Options will be exercisable at such time and subject to such terms and conditions as the Committee will determine; *provided* that no option will be exercisable later than the tenth anniversary of its grant. The option price, upon exercise of any option, will be payable to the Company in full by (a) cash payment or its equivalent, (b) tendering previously acquired shares (held for at least six months) having a fair market value at the time of exercise equal to the option price or certification of ownership of such previously-acquired shares, (c) delivery of a properly executed exercise notice, together with irrevocable instructions to a broker to promptly deliver to the Company the amount of sale proceeds from the option shares or loan proceeds to pay the exercise price and any withholding taxes due to the Company and (d) such other methods of payment as the Committee deems appropriate. In no event will the Committee cancel any outstanding Stock Option for the purpose of reissuing the option to the participant at a lower exercise price or reduce the option price of an outstanding option, in each case without prior stockholder approval.

7. Stock Appreciation Rights. Stock Appreciation Rights may be granted to participants at any time as determined by the Committee. A Stock Appreciation right may be granted in tandem with a Stock Option granted under the Plan or on a free-standing basis. The Committee also may substitute Stock Appreciation Rights which can be settled only in stock for outstanding Stock Options at any time. The grant price of a tandem or substitute Stock Appreciation Rights will be equal to the option price of the related option. The grant price of a free-standing Stock Appreciation Rights will be equal to the fair market value of the Common Stock on the date of its grant. A Stock Appreciation Right may be exercised upon such terms and conditions and for the term as the Committee determines; *provided* that the term will not exceed the option term in the case of a tandem or substitute Stock Appreciation Rights or ten years in the case of a free-standing Stock Appreciation Right and the terms and conditions applicable to a substitute Stock Appreciation Right will be substantially the same as those applicable to the Stock Option which it replaces. Upon exercise of a Stock Appreciation Right, the participant will be entitled to receive payment from the Company in an amount determined by multiplying the excess of the fair market value of a share of Common Stock on the date of exercise over the grant price of the Stock Appreciation Right by the number of shares with respect to which the Stock Appreciation Right is exercised. The payment may be made in cash or stock, at the discretion of the Committee, except in the case of a substitute Stock Appreciation Right, which may be made only in stock.

8. Restricted Stock and Restricted Stock Units. Restricted Stock and Restricted Stock Units may be awarded or sold to participants under such terms and conditions as may be established by the Committee. Restricted Stock and Restricted Stock Units will be subject to such restrictions as the Committee determines, including, without limitation,

any of the following:

- (a) a prohibition against sale, assignment, transfer, pledge, hypothecation or other encumbrance for a specified period; or

Table of Contents

- (b) a requirement that the holder forfeit (or in the case of shares or units sold to the participant resell to the Company at cost) such shares or units in the event of termination of employment during the period of restriction.

All restrictions will expire at such times as the Committee may specify.

9. Performance Stock. The Committee may designate the participants to whom long-term performance stock (Performance Stock) is to be awarded and determine the number of shares, the length of the performance period and the other terms and conditions of each such award. Each award of Performance Stock will entitle the participant to a payment in the form of shares of Common Stock upon the attainment of performance goals and other terms and conditions specified by the Committee. Notwithstanding satisfaction of any performance goals, the number of shares issued under a Performance Stock award may be adjusted by the Committee on the basis of such further consideration as the Committee may determine; *provided* that the Committee may not, in any event, increase the number of shares earned upon satisfaction of any performance goal by any participant who is a Covered Employee. The Committee may make a cash payment equal to the fair market value of shares of Common Stock otherwise required to be issued to a participant pursuant to a Performance Stock award.

10. Performance Units. The Committee may designate the participants to whom long-term performance units (Performance Units) are to be awarded and determine the number of units and the terms and conditions of each such award. Each Performance Unit award will entitle the participant to a payment in cash upon the attainment of performance goals and other terms and conditions specified by the Committee. Notwithstanding the satisfaction of any performance goals, the amount to be paid under a Performance Unit award may be adjusted by the Committee on the basis of such further consideration as the Committee will determine; *provided* that the Committee may not, in any event, increase the amount earned under Performance Unit awards upon satisfaction of any performance goal by any participant who is a Covered Employee and the maximum amount earned by a Covered Employee in any calendar year may not exceed \$500,000. The Committee may substitute actual shares of Common Stock for the cash payment otherwise required to be made to a participant pursuant to a Performance Unit award.

11. Other Stock or Cash Awards. In addition to the incentives described in Sections 6 through 10, the Committee may grant other incentives payable in cash or in Common Stock under the Plan as it determines to be in the best interests of the Company and its stockholders and subject to such other terms and conditions as it deems appropriate.

12. Performance Goals. Awards of Restricted Stock, Restricted Stock Units, Performance Stock, Performance Units and other incentives under the Plan may be made subject to the attainment of performance goals relating to one or more business criteria within the meaning of Section 162(m) of the Code (Performance Criteria). Any Performance Criteria may be used to measure the performance of the Company as a whole or any business unit of the Company and may be measured relative to a peer group or index. Performance Criteria may be calculated in accordance with the Company's financial statements, generally accepted accounting principles or under a methodology established by the Committee prior to the issuance of an award which is consistently applied and identified in the audited financial statements, including footnotes, or the Management Discussion and Analysis section of the Company's annual report.

13. Adjustment Provisions. If the Company at any time changes the number of issued shares of Common Stock by stock dividend, stock split, spin-off, split-off, spin-out, recapitalization, merger, consolidation, reorganization, combination or exchange of shares, the total number of shares reserved for issuance under the Plan, the maximum number of shares which may be made subject to an award in any calendar year, and the number of shares covered by each outstanding award and the price therefor, if any, will be equitably adjusted by the Committee.

14. Terminating Events. The Company, at its option, may give any or all of the participants at least 10 business days written notice (or, if such notice period is not practicable, such shorter notice period as the Company determines in

good faith is practicable) prior to the anticipated date of the consummation of a Terminating Event. Upon receipt of such notice, and for a period of five business days thereafter (or such other period as may be specified in the Company's notice with respect to the Terminating Event), each participant receiving such notice will be permitted to exercise, in whole or in part, the vested and unexercised portion of each Stock Option or Stock Appreciation Right held by such participant in accordance with the terms and conditions of the Plan and the award

Table of Contents

agreement relating to such Stock Option or Stock Appreciation Right. Upon the consummation of the Terminating Event, all Stock Options and Stock Appreciation Rights will be canceled and forfeited to the extent they have not been exercised in accordance with the provisions of this Section 14. If the Terminating Event is not consummated, all Stock Options and Stock Appreciation Rights exercised pursuant to the Company's notice of the Terminating Event will be deemed not to have been exercised and will thereafter be exercisable to the same extent and on the same terms and conditions as if notice of the Terminating Event had not been given by the Company. In lieu of delivering notice of a Terminating Event pursuant to this Section 14, the Company, at its option, may cause the successor or acquiring corporation in connection with any Terminating Event or, if applicable, the corporate parent of any such corporation (the Successor Corporation), to assume in writing the obligations of the Company under the Plan and the outstanding award agreements entered into pursuant to the Plan. In such event, the number and kind of shares acquirable upon the exercise of the Stock Options and Stock Appreciation Rights and the exercise price applicable thereto will be adjusted appropriately and the Stock Options and Stock Appreciation Rights as so adjusted will be deemed solely to represent rights to acquire shares of the Successor Corporation in the manner provided in the agreements between the Company and the Successor Corporation. For purposes of this Section 14, Terminating Event means any (a) sale, lease, exchange or other transfer (in one transaction or a series of related transactions) of all or substantially all of the Company's assets or (b) consolidation or merger of the Company in which the Company is not the surviving or continuing corporation, or pursuant to which shares of the Company's Common Stock would be converted into cash, securities or other property, other than a merger of the Company in which the holders of Common Stock immediately prior to the merger have, directly or indirectly, at least an 80% ownership interest in the outstanding Common Stock of the surviving corporation immediately after the merger.

15. **Nontransferability.** Each benefit granted under the Plan will not be transferable otherwise than by will or the laws of descent and distribution and each Stock Option and Stock Appreciation Right will be exercisable during the participant's lifetime only by the participant or, in the event of disability, by the participant's personal representative. In the event of the death of a participant, exercise of any benefit or payment with respect to any benefit will be made only by or to the executor or administrator of the estate of the deceased participant or the person or persons to whom the deceased participant's rights under the benefit will pass by will or the laws of descent and distribution. Notwithstanding the foregoing, the Committee may permit the transfer of a Stock Option or Stock Appreciation Right by the participant, subject to such terms and conditions as may be established by the Committee.

16. **Taxes.** The Company will be entitled to withhold the amount of any tax attributable to any amounts payable or shares deliverable under the Plan, after giving the person entitled to receive such payment or delivery notice and the Company may defer making payment or delivery as to any award, if any such tax is payable until indemnified to its satisfaction. A participant may pay all or a portion of any required withholding taxes arising in connection with the exercise of a Stock Option or Stock Appreciation Right or the receipt or vesting of shares hereunder by electing to have the Company withhold shares of Common Stock, having a fair market value equal to the amount required to be withheld.

17. **Duration, Amendment and Termination.** No award of any benefit under the Plan will be made more than ten years after the date of adoption of the Plan by the Board of Directors; *provided* that the terms and conditions applicable to any option granted on or before such date may thereafter be amended or modified by mutual agreement between the Company and the participant, or such other person as may then have an interest therein. The Board of Directors or the Committee may amend the Plan from time to time or terminate the Plan at any time; *provided* that no such action will reduce the amount of any existing award or change the terms and conditions thereof without the participant's consent. No material amendment of the Plan will be made without stockholder approval.

18. **Fair Market Value.** The fair market value of the Common Stock at any time will be determined in such manner as the Committee may deem equitable or as required by applicable law or regulation.

19. Other Provisions. The award of any benefit under the Plan may also be subject to other provisions (whether or not applicable to the benefit awarded to any other participant) as the Committee determines appropriate, including provisions intended to comply with federal or state securities laws and stock exchange requirements, understandings or conditions as to the participant's employment, requirements or inducements for continued ownership of Common Stock after exercise or vesting of benefits, acceleration of benefits upon the occurrence of a

Table of Contents

change in control of the Company or other events determined by the Committee, forfeiture of awards in the event of termination of employment after exercise or vesting, or breach of noncompetition or confidentiality agreements following termination of employment, or provisions permitting the deferral of the receipt of a benefit for such period and upon such terms as the Committee may determine. If any benefit under the Plan is granted to an employee who is employed or providing services outside the United States and who is not compensated from a payroll maintained in the United States, the Committee may modify the provisions of the Plan as they pertain to such individuals to comply with applicable law, regulation or accounting rules. The Committee may permit or require a participant to have amounts or shares of Common Stock that otherwise would be paid or delivered to the participant as a result of the exercise or settlement of an award under the Plan credited to a deferred compensation or stock unit account established for the participant by the Committee on the Company's books of account.

20. Code Section 409A. To the extent applicable, the parties intend that the Plan and award agreements will be interpreted and construed in compliance with Section 409A of the Code and Treasury Department regulations and other interpretive guidance issued thereunder. Notwithstanding the foregoing, the Company will not be required to assume any increased economic burden in connection therewith. Although the Company intends to administer the Plan so that it will comply with the requirements of Section 409A of the Code, the Company does not represent or warrant that the Plan will comply with Section 409A of the Code or any other provision of federal, state, local or non-United States law. Neither the Company nor any of its directors, officers, employees or advisers will be liable to any participant (or any other individual claiming a benefit through the participant) for any tax, interest or penalties the participant might owe as a result of participation in the Plan.

21. Governing Law. The Plan and any actions taken in connection herewith will be governed by and construed in accordance with the laws of the State of Delaware without regard to applicable conflict of law principles.

22. Stockholder Approval. The Plan was originally adopted by the Board of Directors on July 10, 2003 and approved by the stockholders of the Company on September 17, 2003. An amendment and restatement of the Plan to increase the number of shares available under the Plan from 750,000 to 2,250,000 shares of Common Stock was adopted by the Board of Directors on July 14, 2005 and approved by the stockholders of the Company on September 29, 2005. An amendment and restatement of the Plan to further increase the number of shares available under the Plan from 2,250,000 to 4,000,000 shares of Common Stock was adopted by the Board of Directors on August 1, 2008, subject to stockholder approval. The foregoing amendment to the Plan will not become effective if stockholder approval is not obtained at the Company's next annual meeting of stockholders and, in such event, the Plan in the form previously adopted and approved by the Board of Directors and the Company's stockholders will continue in full force and effect.

Table of Contents

**RESTATED CERTIFICATE OF INCORPORATION
OF
NORTHFIELD LABORATORIES INC.**

**Pursuant to Sections 242 and 245 of the General
Corporation Law of the State of Delaware**

Northfield Laboratories Inc., a corporation organized and existing under the laws of the State of Delaware (the Corporation), hereby certifies as follows:

The original Certificate of Incorporation of the Corporation was filed on June 19, 1985. Restated Certificates of Incorporation of the Corporation were filed on May 5, 1994 and November 3, 1999. An Amendment to the Restated Certificate of Incorporation of the Corporation was filed on September 29, 2005.

This Restated Certificate of Incorporation amends and restates the Certificate of Incorporation of the Corporation as heretofore in effect. This Restated Certificate of Incorporation has been proposed by the Board of Directors and adopted by the stockholders of the Corporation in the manner and by the vote prescribed by Sections 242 and 245 of the General Corporation Law of the State of Delaware, and is as follows:

1. *Corporate Name.* The name of the Corporation is Northfield Laboratories Inc.
2. *Registered Office and Agent.* The address, including street, number, city and county, of the registered office of the Corporation in the State of Delaware is Corporation Trust Center, 1209 Orange Street, Wilmington, New Castle County, Delaware 19801. The name of the registered agent of the Corporation in the State of Delaware at such address is The Corporation Trust Company.
3. *Purpose.* The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware.
4. *Authorized Capital Stock.* The total number of shares of stock which the Corporation shall have authority to issue is 65,000,000 shares, consisting of 60,000,000 shares of Common Stock, par value \$.01 per share (the Common Stock), and 5,000,000 shares of Preferred Stock, par value \$.01 per share (the Preferred Stock).

Upon the filing and effectiveness of this Restated Certificate of Incorporation, each shares¹(of Common Stock then issued and outstanding shall, without any action on the part of the holder thereof, be combined and converted into one fully paid and non-assessable share of Common Stock. After the filing and effectiveness of this Restated Certificate of Incorporation, each stockholder shall deliver to the Corporation or its agent their certificate or certificates representing shares of Common Stock prior to giving effect to the foregoing combination of shares, and the proper officers of the Corporation shall execute, issue and deliver to each such stockholder certificates representing the appropriate number of shares of Common Stock after giving effect to the foregoing combination of shares. No fractional shares of Common Stock shall be issued as a result of the foregoing combination of shares. Stockholders that otherwise would be entitled to receive a fractional share of Common Stock as a consequence of the foregoing combination of shares shall, upon surrender to the Corporation or its agent of the certificate or certificates representing such fractional shares, instead be entitled to receive an amount of cash, without interest, equal to the product obtained by multiplying (a) the closing price of a share of Common Stock as reported on the Nasdaq Global

Market on the business date immediately preceding the effective date of this Restated Certificate of Incorporation and (b) the number of shares of Common Stock held by the stockholder that would otherwise have been exchanged for the fractional share interest.

The Preferred Stock may be issued from time to time in one or more series. The Board of Directors of the Corporation (the Board of Directors) is expressly authorized to provide for the issuance of the Preferred Stock in one or more series, and to fix the number of shares and to determine or alter for each such series, such voting powers,

(¹ Between three and seven shares of Common Stock, as determined by the Board of Directors of the Corporation.

Table of Contents

full or limited, or no voting powers, and such designations, preferences, and relative, participating, optional or other rights, and such qualifications, limitations or restrictions thereof, as shall be stated and expressed in the resolution or resolutions adopted by the Board of Directors providing for the issuance of such shares and as may be permitted by the General Corporation Law of the State of Delaware. The Board of Directors is also expressly authorized to increase or decrease (but not below the number of shares of such series outstanding) the number of shares of any series subsequent to the issuance of shares of that series. In case the number of shares of any such series shall so decrease, the shares constituting such decrease shall resume the status that they had prior to the adoption of the resolution originally fixing the number of shares of such series.

5. *Action by Stockholders.* Special meetings of stockholders of the Corporation may be called only by the Board of Directors pursuant to a resolution approved by a majority of the entire Board of Directors. Any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called annual or special meeting of such holders and may not be effected by any consent in writing by such stockholders. At any annual or special meeting of the stockholders of the Corporation, only such business shall be conducted as shall have been brought before such meeting in the manner provided in the Bylaws of the Corporation.

6. *Board of Directors.* The business and affairs of the Corporation shall be managed and controlled by a Board of Directors consisting of not less than three nor more than eleven persons. The exact number of directors within the minimum and maximum numbers specified in the preceding sentence shall be fixed from time to time by the Board of Directors pursuant to a resolution adopted by a majority of the entire Board of Directors. Subject to the rights of the holders of any series of Preferred Stock outstanding, newly created directorships resulting from any increase in the authorized number of directors or any vacancies in the Board of Directors resulting from death, resignation, retirement, disqualification, removal from office or other cause shall be filled by a majority of the directors then in office, and the directors so chosen shall hold office for a term expiring at the next annual meeting of stockholders of the Corporation. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director. In discharging the duties of their respective positions, the Board of Directors, committees of the Board of Directors, individual directors and officers may, in considering the best long-term and short-term interests of the Corporation, consider the effects of any action (including, without limitation, action which may involve or relate to a change or potential change in control of the Corporation) upon employees, suppliers and customers of the Corporation, communities in which offices or other establishments of the Corporation are located, and all other pertinent factors.

7. *Fair Price Provision.*

(a) The affirmative vote of the holders of at least 80 percent of the outstanding shares of Voting Stock (as hereinafter defined) held by stockholders other than an Interested Stockholder (as hereinafter defined) shall be required for the approval or authorization of any Business Combination (as hereinafter defined) of the Corporation with any Interested Stockholder; *provided* that the 80 percent voting requirement shall not be applicable if:

(i) the Continuing Directors (as hereinafter defined) of the Corporation by at least a two-thirds vote (A) have expressly approved in advance the acquisition of the outstanding shares of Voting Stock that caused such Interested Stockholder to become an Interested Stockholder or (B) have expressly approved such Business Combination, either in advance of or subsequent to such Interested Stockholder having become an Interested Stockholder; or

(ii) the cash or fair market value (as determined by at least two-thirds of the Continuing Directors) of the property, securities or other consideration to be received per share by holders of Voting Stock of the Corporation in the Business Combination is not less than the Highest Per Share Price or the Highest Equivalent Price (as such terms are hereinafter defined) paid by the Interested Stockholder in acquiring any Voting Stock of the Corporation.

(b) For purposes of this Section 7:

(i) the term **Business Combination** shall mean (A) any merger or consolidation of the Corporation or a subsidiary of the Corporation with or into an Interested Stockholder, (B) any sale, lease, exchange, transfer, license or other disposition, including, without limitation, a mortgage or any other security device, of all or any Substantial Part (as hereinafter defined) of the assets either of the Corporation (including, without limitation,

Table of Contents

any voting securities of a subsidiary) or of a subsidiary of the Corporation to an Interested Stockholder, (C) any merger or consolidation of an Interested Stockholder with or into the Corporation or a subsidiary of the Corporation, (D) any sale, lease, exchange, transfer or other disposition, including, without limitation, a mortgage or other security device, of all or any Substantial Part of the assets of an Interested Stockholder to the Corporation or a subsidiary of the Corporation, (E) the issuance of any securities of the Corporation or a subsidiary of the Corporation to an Interested Stockholder, (F) any recapitalization that would have the effect of increasing the voting power of an Interested Stockholder and (G) any agreement, contract or other arrangement providing for any of the transactions described in this definition of Business Combination;

(ii) the term Interested Stockholder shall mean and include any individual, corporation, partnership or other person or entity which, together with its Affiliates and Associates (as defined in Rule 12b-2 of the General Rules and Regulations under the Securities Exchange Act of 1934 as in effect at the date of the adoption of this Restated Certificate of Incorporation by the stockholders of the Corporation (collectively, and as so in effect, the Exchange Act)) Beneficially Owns (as defined in Rule 13d-3 of the Exchange Act) in the aggregate 15 percent or more of the outstanding Voting Stock of the Corporation, and any Affiliate or Associate of any such individual, corporation, partnership or other person or entity;

(iii) any share of Voting Stock of the Corporation that any Interested Stockholder has the right to acquire at any time (notwithstanding that Rule 13d-3 deems such shares to be beneficially owned only if such right may be exercised within 60 days) pursuant to any agreement, or upon exercise of conversion rights, warrants or options or otherwise, shall be deemed to be Beneficially Owned by the Interested Stockholder and to be outstanding for purposes hereof;

(iv) the term Substantial Part shall mean more than 15 percent of the fair market value as determined by two-thirds of the Continuing Directors of the total consolidated assets of the Corporation and its subsidiaries taken as a whole as of the end of its most recent fiscal year ended prior to the time the determination is being made;

(v) for the purposes of subparagraph (ii) of Section 7(a), the term other consideration to be received shall include, without limitation, Common Stock or other capital stock of the Corporation retained by its existing stockholders other than Interested Stockholders or other parties to such Business Combination in the event of a Business Combination in which the Corporation is the surviving corporation;

(vi) the term Voting Stock shall mean all of the outstanding shares of Common Stock and the outstanding shares of Preferred Stock entitled to vote on each matter on which the holders of record of Common Stock shall be entitled to vote, and each reference to a proportion of shares of Voting Stock shall refer to such proportion of the votes entitled to be cast by such shares;

(vii) the term Continuing Director shall mean a Director who (A) was a member of the Board of Directors of the Corporation immediately prior to the time that the Interested Stockholder involved in a Business Combination became an Interested Stockholder or (B) is not an Interested Stockholder or an Affiliate or an Associate of an Interested Stockholder and whose nomination or election to the Board of Directors is recommended or approved by a majority of the Directors deemed to be Continuing Directors pursuant to clause (A) hereof;

(viii) an Interested Stockholder shall be deemed to have acquired a share of the Voting Stock of the Corporation at the time when such Interested Stockholder became the Beneficial Owner thereof. With respect to the shares owned by Affiliates, Associates or other persons whose ownership is attributed to an Interested Stockholder under the foregoing definition of Interested Stockholder, if the price paid by such Interested Stockholder for such shares is not determinable by two-thirds of the Continuing Directors, the price so paid shall be deemed to be the higher of (A) the price paid upon the acquisition thereof by the Affiliate, Associate or other person or (B) the market price of the shares in question at the time when the Interested Stockholder became the Beneficial Owner thereof; and

Table of Contents

(ix) the terms Highest Per Share Price and Highest Equivalent Price as used in this Section 7 shall mean the following:

If there is only one class of capital stock of the Corporation issued and outstanding, the Highest Per Share Price shall mean the highest price that can be determined to have been paid at any time by the Interested Stockholder for any share or shares of that class of capital stock. If there is more than one class of capital stock of the Corporation issued and outstanding, the Highest Equivalent Price shall mean with respect to each class and series of capital stock of the Corporation, the amount determined by two-thirds of the Continuing Directors, on whatever basis they believe is appropriate, to be the highest per share price equivalent of the highest price that can be determined to have been paid at any time by the Interested Stockholder for any share or shares of any class or series of capital stock of the Corporation. In determining the Highest Per Share Price and Highest Equivalent Price, all purchases by the Interested Stockholder shall be taken into account regardless of whether the shares were purchased before or after the Interested Stockholder became an Interested Stockholder. The Highest Per Share Price and the Highest Equivalent Price shall include any brokerage commissions, transfer taxes and soliciting dealers fees paid by the Interested Stockholder with respect to the shares of capital stock of the Corporation acquired by the Interested Stockholder. In the case of any Business Combination with an Interested Stockholder, the Continuing Directors shall determine the Highest Equivalent Price for each class and series of the capital stock of the Corporation.

8. *Indemnification.* The Corporation shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Corporation) by reason of the fact that he is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including, without limitation, attorneys fees and expenses), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which he reasonably believed to be in or not opposed to the best interests of the Corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that his conduct was unlawful.

The Corporation shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Corporation to procure a judgment in its favor by reason of the fact that he is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including, without limitation, attorneys fees and expenses) actually and reasonably incurred by him in connection with the defense or settlement of such action or suit if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Corporation and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the Corporation unless and only to the extent that the Court of Chancery of the State of Delaware or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Any indemnification under the previous two paragraphs of this Section 8 (unless ordered by a court) shall be made by the Corporation only as authorized in the specific case upon a determination that indemnification of the director, officer, employee or agent is proper in the circumstances because he has met the applicable standard of conduct set forth in such paragraphs. Such determination shall be made (a) by the Board of Directors by a majority vote of a quorum consisting of directors who were not parties to such action, suit or proceeding, (b) if such quorum is not

obtainable, or, even if obtainable, if a quorum of disinterested directors so directs, by independent legal counsel in a written opinion or (c) by the stockholders of the Corporation.

Table of Contents

Expenses (including attorneys' fees and expenses) incurred by a director, officer, employee or agent in defending any civil, criminal, administrative or investigative action, suit or proceeding shall be paid by the Corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such person to repay such amount if it shall ultimately be determined that he is not entitled to be indemnified by the Corporation as authorized in this Section 8.

The indemnification and advancement of expenses provided by, or granted pursuant to, this Section 8 shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under any Bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity as to action in another capacity while holding such office.

The Corporation shall have power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him and incurred by him in any such capacity, or arising out of his status as such, whether or not the Corporation would have the power to indemnify him against such liability under the provisions of this Section 8.

For purposes of this Section 8 references to the Corporation shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this Section 8 with respect to the resulting or surviving corporation as he would have with respect to such constituent corporation if its separate existence had continued.

For purposes of this Section 8, references to other enterprises shall include employee benefit plans; references to fines shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to serving at the request of the Corporation shall include any service as a director, officer, employee or agent of the Corporation which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner he reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner not opposed to the best interests of the Corporation as referred to in this Section 8.

The indemnification and advancement of expenses provided by, or granted pursuant to, this Section 8 shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

9. Liability of Directors. No director of the Corporation shall be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (a) for any breach of the director's duty of loyalty to the Corporation or its stockholders, (b) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (c) under Section 174 of the General Corporation Law of the State of Delaware, as the same exists or hereafter may be amended, or (d) for any transaction from which the director derived an improper personal benefit. Any repeal or modification of this Section 9 by the Board of Directors or stockholders of the Corporation shall be prospective only, and shall not adversely affect any limitation on the personal liability of a director of the Corporation existing at the time of such repeal or modification. Nothing herein shall limit or otherwise affect the obligation or right of the Corporation to indemnify its directors pursuant to the provisions of this Restated Certificate of Incorporation, the Bylaws of the Corporation or as may be permitted by the

General Corporation Law of the State of Delaware.

10. *Amendment.* The provisions of this Restated Certificate of Incorporation may not be amended, altered or repealed in any respect unless such action is approved by the affirmative vote of the holders of at least 80 percent of the outstanding shares of Voting Stock (as defined in Section 7) of the Corporation at a meeting of the stockholders of the Corporation duly called for the consideration of such amendment, alteration or repeal; *provided* that if there is

Table of Contents

an Interested Stockholder (as defined in Section 7), such action must also be approved by the affirmative vote of the holders of at least 80 percent of the outstanding shares of Voting Stock held by stockholders other than the Interested Stockholder.

11. *Bylaws*. In furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to (a) make, alter or repeal the Bylaws of the Corporation, and (b) adopt from time to time Bylaw provisions with respect to indemnification of directors, officers, employees, agents and other persons as it shall deem expedient and in the best interests of the Corporation and to the extent permitted by law.

12. *Voting by Ballot*. Elections of directors need not be by written ballot unless the Bylaws of the Corporation so provide.

* * * * *

Table of Contents

IN WITNESS WHEREOF, the Corporation has caused this Certificate to be executed by its President and attested by its Secretary as of this , 200 .

NORTHFIELD LABORATORIES INC

/s/ Steven A. Gould, M.D.

Steven M. Gould, M.D.
President

Attest:

/s/ Jack J. Kogut

Jack J. Kogut
Secretary

Table of Contents

**NORTHFIELD
LABORATORIES
INC.**

Electronic Voting Instructions

**You can vote by Internet or telephone!
Available 24 hours a day, 7 days a week!**

Instead of mailing your proxy, you may choose one of the two voting methods outlined below to vote your proxy.

VALIDATION DETAILS ARE LOCATED BELOW IN THE TITLE BAR.

Proxies submitted by the Internet or telephone must be received by 1:00 a.m., Central Time, on October 2, 2008.

Vote by Internet

Log on to the Internet and go to
www.investorvote.com/NFLD

Follow the steps outlined on the secured website.

Vote by telephone

Call toll free 1-800-652-VOTE (8683) within the United States, Canada & Puerto Rico any time on a touch tone telephone. There is **NO CHARGE** to you for the call.

Follow the instructions provided by the recorded message.

Using a **black ink** pen, mark your votes with an **X** as shown in this example. Please do not write outside the designated areas. x

IF YOU HAVE NOT VOTED VIA THE INTERNET OR TELEPHONE, FOLD ALONG THE PERFORATION, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE.

Proposals The Board of Directors recommends a vote **FOR** the listed nominees and **FOR** Proposals 2 - 5.

| 1. Election of Directors: | For | Withhold | For | Withhold | For | Withhold | + |
|----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| 01 - Steven A. Gould, M.D. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 02 - John F. Bierbaum | | | | | <input type="radio"/> | <input type="radio"/> | |
| 03 - Bruce S. Chelberg | | | | | <input type="radio"/> | <input type="radio"/> | |
| 04 - Alan L. Heller | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 05 - Paul M. Ness, M.D. | | | | | <input type="radio"/> | <input type="radio"/> | |
| 06 - David A. Savner | | | | | <input type="radio"/> | <input type="radio"/> | |
| 07 - Edward C. Wood, Jr. | <input type="radio"/> | <input type="radio"/> | | | | | |

| | For | Against | Abstain | | For | Against | Abstain |
|--|-----------------------|-----------------------|-----------------------|--|-----------------------|-----------------------|-----------------------|
| 2. To ratify the appointment of KPMG LLP as independent auditors of the Company to serve for the Company's 2009 fiscal year. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | 3. To approve an amendment to the Northfield Laboratories Inc. 2003 Equity Compensation Plan to increase the number of shares available for awards under the Plan from 2,250,000 to 4,000,000 shares; and to amend certain other provisions in the Plan. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 4. To approve a proposal to amend the Company's Restated Certificate of Incorporation to allow a reverse split of outstanding shares of the Company's Common Stock, par value \$.01 per share. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | 5. In their discretion, to act in any other matters which may properly come before the Annual Meeting and any adjournment or postponement thereof. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

Non Voting Items

Change of Address Please print new address below.

Meeting

Attendance

Mark box to the right if you plan to attend the Annual Meeting.

Authorized Signatures This section must be completed for your vote to be counted. **Date and Sign Below**

Sign exactly as your name(s) appear hereon. When signing as attorney, administrator, trustee, executor, administrator, guardian or any other representative capacity, please indicate. Please sign in the box(s) below to validate this proxy.

Date Signature 1 Please keep signature within the box. Signature 2 Please keep signature within the box.
(mm/dd/yyyy)

Please
print
date
below.

/ /

Table of Contents

6 IF YOU HAVE NOT VOTED VIA THE INTERNET OR TELEPHONE, FOLD ALONG THE PERFORATION, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE. 6

Proxy NORTHFIELD LABORATORIES INC.

**1560 Sherman Avenue, Suite 1000,
Evanston, IL 60201**

Meeting Location: Deer Path Inn, Lake Forest, IL

Meeting time: 10:00 A.M.

ANNUAL MEETING OF STOCKHOLDERS OCTOBER 2, 2008

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

The undersigned stockholder of Northfield Laboratories Inc. hereby appoints Jack J. Kogut and Davida Berman, and each of them, attorneys and proxies with full power of substitution, to vote at the Annual Meeting of the Stockholders of Northfield Laboratories Inc. to be held on Thursday, October 2, 2008, at 10:00 A.M., local time, at The Deer Path Inn, 255 East Illinois Road, Lake Forest, Illinois 60045, and at any adjournment or postponement thereof, in the name of the undersigned and with the same force and effect as if the undersigned were present and voting such shares, on the following matters and in the following manner.

THE SHARES REPRESENTED BY THIS PROXY WILL BE VOTED IN ACCORDANCE WITH THE SPECIFICATIONS MADE HEREON. IF NO SPECIFICATION IS MADE, THE SHARES REPRESENTED BY THIS PROXY WILL BE VOTED BY EACH OF THE ABOVE PERSONS, FOR EACH OF THE PROPOSALS TO BE PRESENTED AT THE ANNUAL MEETING AND FOR SUCH OTHER MATTERS AS MAY PROPERLY COME BEFORE THE ANNUAL MEETING AS THE ABOVE PERSONS MAY DEEM ADVISABLE.

PLEASE MARK, SIGN, DATE AND RETURN THIS PROXY CARD PROMPTLY USING THE ENCLOSED ENVELOPE.

(Continued and to be signed on reverse side.)