

NORTHFIELD LABORATORIES INC /DE/

Form DEF 14A

August 14, 2007

Table of Contents

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
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 Section 240.14a-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)(4) 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:

Table of Contents

5) Total fee paid:

- o Fee paid previously with preliminary materials.
- o 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:

PERSONS WHO POTENTIALLY ARE TO RESPOND TO THE COLLECTION OF INFORMATION
CONTAINED IN THIS FORM ARE NOT REQUIRED TO RESPOND UNLESS THE FORM DISPLAYS A
CURRENTLY VALID OMB CONTROL NUMBER.
SEC 1913 (02-02)

Table of Contents

NORTHFIELD LABORATORIES INC.

1560 Sherman Avenue, Suite 1000

Evanston, Illinois 60201-4800

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

to be held
September 25, 2007

TO THE STOCKHOLDERS OF NORTHFIELD LABORATORIES INC:

The Annual Meeting of the stockholders of Northfield Laboratories Inc. (the Company) will be held on Tuesday, September 25, 2007 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 2008 fiscal year; and
3. 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 9, 2007 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 14, 2007

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

Northfield Laboratories Inc.

Item 1. ELECTION OF DIRECTORS

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 DONNA O. NEILL-MULVIHILL

SUMMARY OF COMPENSATION AND BENEFITS ROBERT L. MCGINNIS

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

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 Tuesday, September 25, 2007 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 14, 2007.

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 9, 2007, the record date for the annual meeting, are entitled to notice of and to vote at the annual meeting. As of August 9, 2007, there were 26,916,541 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.

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. Abstentions will have the effect of negative votes with respect to this proposal.

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

Table of Contents

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 2007 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 60, 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 63, 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.

Table of Contents

Name	Director Since	Office	Principal Occupation and Business Experience
Bruce S. Chelberg	1989	Director	Mr. Chelberg, age 73, 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.
Alan L. Heller	2006	Director	Mr. Heller, age 53, 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, Kalypsys Co., a privately-held company, 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 61, 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.

Table of Contents

Name	Director Since	Office	Principal Occupation and Business Experience
David A. Savner	1998	Director	Mr. Savner, age 63, 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.
Edward C. Wood, Jr.	2005	Director	Mr. Wood, age 62, 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 Gambro 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 2007 fiscal year, our independent directors participated in four executive sessions, all of which were held in conjunction with regularly scheduled board meetings.

Table of Contents

Audit Committee

Meetings. During our 2007 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;

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 407(d)(5). 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 2007 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

Table of Contents

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 2007 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.

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

Table of Contents

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 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.

Table of Contents

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	\$ 23,000	\$ 15,000	\$ 92,347		\$ 130,347
Bruce S. Chelberg	19,000	15,000	92,347		126,347
Alan L. Heller	22,000	15,000	92,347		129,347
Paul M. Ness, M.D.	19,000	15,000	92,347	60,000(2)	186,347
David A. Savner	21,000	15,000	92,347		128,347
Edward C. Wood, Jr.	24,000	15,000	92,347		131,347
Total	\$ 128,000	\$ 90,000	\$ 554,082		\$ 839,082

(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 regulatory 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 2007 fiscal year.

Director Attendance

During our 2007 fiscal year, our board of directors held nine 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 2006 annual meeting, all of our directors were 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
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 60, 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 43, 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 48, 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 40, has served as Vice President Clinical Operations since January 2005. Prior to January 2005, Mr. Hides served as 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 50, 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 46, has served as Vice President Finance since March 2007. Prior to that time, Ms. O Neill-Mulvihill 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. She is also a certified public accountant.

Ms. Twaddell, age 55, 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 executive 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, and Jack J. Kogut, our Senior Vice President Administration, Secretary and Treasurer, provide for target bonus payments equal to 50 percent and 40 percent, respectively, of their annual base salary. For superior performance, the maximum bonus opportunity is 150 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 for each of clinical, regulatory, manufacturing and administration. The employment agreements also provide for cash bonus payments equal to 150 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.

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

Table of Contents

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 2007 Compensation

During our 2007 fiscal year, our Chief Executive Officer, Steven A. Gould, M.D., received \$365,000 in base salary, a \$100,000 cash bonus and no grant of stock options or award of restricted stock. The amount and composition of Dr. Gould's compensation during our 2007 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 a 25,000 stock option to one named executive officer. This grant was made in recognition of a promotion to executive officer. We also paid cash bonuses to our named executive officers during our last completed fiscal year totaling \$350,000. These bonuses were paid primarily in recognition of the significant contributions by our executive officers to the completion of patient enrollment in our pivotal Phase III clinical trials. 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 2007 fiscal year.

Compensation Committee Report

The compensation committee of our board of directors has reviewed the foregoing Compensation Discussion and Analysis and discussed it with management 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

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**Compensation Information**

The following table summarizes all compensation paid for our 2007 fiscal year 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	All Other Compensation(2)	Total
Steven A. Gould, M.D. Chairman and Chief Executive Officer	2007	\$ 365,000	\$ 100,000	\$ 42,689	\$ 507,689
Donna O Neill-Mulvihill Vice President Finance	2007	\$ 137,865	\$ 12,825	\$ 12,459	\$ 163,149
Jack J. Kogut Senior Vice President Administration	2007	\$ 258,750	\$ 55,000	\$ 35,497	\$ 349,247
Robert L. McGinnis Senior Vice President Operations	2007	\$ 225,000	\$ 36,000	\$ 16,781	\$ 277,781
Laurel A. Omert, M.D. Chief Medical Officer	2007	\$ 242,000	\$ 35,000	\$ 19,606	\$ 296,606

(1) Our fiscal year begins on June 1 and ends on May 31. Our 2007 fiscal year ended May 31, 2007.

(2) 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.

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
Steven A. Gould, M.D. Donna O Neill-Mulvihill Jack J. Kogut Robert L. McGinnis Laurel A. Omert, M.D.	03/26/2007	\$ 3.61	\$ 69,845(1)

(1)

The fair value of each option grant is estimated on the date of 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, 2007.

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR END

Name	Number of Shares	Option Awards			Stock Awards	
		Underlying	Number of Shares	Option	Number of Shares	Market Value of Shares
	Unexercised	Unexercised	Expiration	Have Not Vested	Have Not Vested	
	Stock Options	Stock Options	Option Exercise Price	Date		
	Exercisable	Unexercisable				
Steven A. Gould, M.D.	15,000		\$ 13.38	4/23/2008		
	30,000		\$ 10.81	4/7/2009		
	15,000		\$ 10.88	1/2/2011		
	100,000		\$ 3.62	1/2/2013		
	75,000	25,000	\$ 7.50	1/14/2014		
	50,000	50,000	\$ 18.55	1/28/2015		
	25,000	75,000	\$ 12.76	1/12/2016		
Donna O Neill-Mulvihill	1,250	3,750	\$ 13.42	1/3/2016		
		25,000	\$ 3.61	3/26/2017		
Jack J. Kogut	15,000		\$ 13.38	4/23/2008		
	25,000		\$ 10.81	4/07/2009		
	12,000		\$ 10.88	1/02/2011		
	50,000		\$ 5.08	10/30/2012		
	37,500	12,500	\$ 7.50	1/16/2014		
	25,000	25,000	\$ 18.55	1/28/2015		
	12,500	37,500	\$ 12.76	1/12/2016		
Robert McGinnis	10,000		\$ 9.56	8/25/2007		
	5,000		\$ 13.38	4/23/2008		
	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		
	18,750	6,250	\$ 5.94	11/3/2013		
Laurel Omert, M.D.	12,500	12,500	\$ 18.55	1/28/2015		
	6,250	18,750	\$ 12.76	1/12/2016		

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			750	\$ 9,675
Laurel A. Omert, M.D.				

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

Table of Contents

Employment Agreements

We have employment agreements with Steven A. Gould, M.D., our Chief Executive Officer, and Jack J. Kogut, our Senior Vice President Administration, Secretary and Treasurer. In accordance with the terms of these employment agreements, during our 2007 fiscal year Dr. Gould and Mr. Kogut, respectively, received:

base salaries of \$365,000 and \$250,000 and

cash bonuses of \$100,000 and \$55,000.

Dr. Gould and Mr. Kogut 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 and Mr. Kogut may become entitled to annual cash bonuses contingent on achieving certain agreed upon performance goals. The 2007 bonuses were paid based on the achievement of board approved performance goals in the areas of clinical, regulatory, manufacturing and administration. For the 2008 fiscal year, the target bonus payments for Dr. Gould and Mr. Kogut are 50 percent and 40 percent, respectively, of their annual base salary. For superior performance, the maximum bonus opportunity is 150 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 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, 2007, the last day of our 2007 fiscal year. For purposes of valuing our common stock, we have used the closing price of \$1.55 on May 31, 2007, the last business day of our 2007 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 January 28, 2005. 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	Termination by Northfield Other Than for Cause or by Executive for	Termination Following Change in Control
	Reason(1)(2)	Good Reason	Reason	(3)(4)
Compensation(5):				
Accrued compensation(6)	\$ 141,146	\$ 141,146	\$ 141,146	\$ 141,146
Cash bonus				
Lump sum cash payment			751,900	1,127,850
Career transition assistance			25,000	25,000
Stock options (acceleration of vesting)				
Restricted stock (acceleration of vesting)				
Benefits:				
Medical insurance			10,495	15,742
Life insurance			59,686	89,529
Other welfare benefits			6,552	9,828
280G tax gross-up payment(7)				316,316

- (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, 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) Dr. Gould voluntarily terminates his employment within the 90-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 excised 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 January 28, 2005. 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 Reason(1)(2)	Termination by Northfield Other Than for Cause or by Executive for Good Reason	Termination Following Change in Control(3)(4)
Executive Compensation and Benefits			

**Death or
Disability**

Compensation(5):

Accrued compensation(6)	\$	70,138	\$	70,138	\$	70,138	\$	70,138
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				27,732		41,597		
Life insurance				53,418		80,127		
Other welfare benefits				6,504		9,756		
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) Mr. Kogut voluntarily terminates his employment within the 90-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 excised 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 substantially identical severance protection agreements with each of Donna O Neill-Mulvihill, our vice president finance, Robert L. McGinnis, our senior vice president operations, and Laurel A. Olmert, M.D., our chief medical officer. 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. The agreements do not modify the at will employment relationship between Northfield and each of the executive officers and do not require payments or benefits in connection with any termination of employment prior to the occurrence of a change in control.

Table of Contents

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

Executive Compensation and Benefits	Termination Following Change in Control(1)(2)
Compensation:	
Accrued compensation(3)	\$ 9,609
Cash bonus	
Lump sum cash payment	165,000
Stock options (acceleration of vesting)	
Restricted stock (acceleration of vesting)	
Benefits:	
Medical insurance	13,866
Life insurance	5,646
Other welfare benefits	

- (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 severance protection 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. Good 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 compensation, including accrued vacation pay, earned by Ms. O Neill-Mulvihill through the date of her termination of employment.

Table of Contents

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

Executive Compensation and Benefits	Termination Following Change in Control(1)(2)
Compensation:	
Accrued compensation(3)	\$ 30,372
Cash bonus	
Lump sum cash payment	255,000
Stock options (acceleration of vesting)	
Restricted stock (acceleration of vesting)	
Benefits:	
Medical insurance	15,462
Life insurance	6,185
Other welfare benefits	

- (1) If there is a change in control of Northfield, Mr. McGinnis is entitled to benefits under the severance protection agreement if within 24 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.
- (2) The definitions of change in control, cause and good reason in Mr. McGinnis 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 compensation, including accrued vacation pay, earned by Mr. McGinnis through the date of his termination of employment.

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

Executive Compensation and Benefits	Termination Following Change in Control(1)(2)
Compensation:	
Accrued compensation(3)	\$ 15,462
Cash bonus	
Lump sum cash payment	249,000
Stock options (acceleration of vesting)	
Restricted stock (acceleration of vesting)	
Benefits:	
Medical insurance	5,247
Life insurance	11,325

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 compensation, including accrued vacation pay, earned by Dr. Olmert through the date of her termination of employment.

Table of Contents**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, 2007, the end of our last completed fiscal year.

Plan Category	Equity Compensation Plan Information		Number of Shares Remaining Available for Future Issuance Under Equity Compensation Plans(1)
	Number of Shares to be Issued Upon Exercise of Outstanding Stock Options	Weighted-Average Exercise Price of Outstanding Stock Options	
Equity compensation plans approved by stockholders	1,093,500	\$ 12.04	1,426,500
Equity compensation plans not approved by stockholders	587,875	9.53	
Total	1,681,375	\$ 11.08	

(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 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, 2007, options to purchase a total of 164,500 shares of common stock at prices between \$9.56 and \$15.41 were outstanding under the 1996 plan. These options expire between 2007 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, 2007, options to purchase a total of 283,375 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, 2007, options to purchase a total of 80,000 shares common stock at prices between \$3.62 and \$22.02 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, 2007, options to purchase a total of 60,000 shares of common stock at prices between \$4.09 and \$13.38 per share were outstanding under this plan. These options expire between 2008 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, 2007, restricted stock awards covering a total of 18,250 shares of common stock were outstanding under this plan. As of May 31, 2007, options to purchase a total of 1,093,500 shares

Table of Contents

of common stock at prices between \$3.61 and \$18.55 per share were outstanding under this plan. These options expire between 2013 and 2015.

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, 2007, 2006 and 2005 were \$269,020, \$248,112 and \$202,838, 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 2007 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, 2007, 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, 2007 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, 2007, 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.	853,450(2)	3.1%
Jack J. Kogut	264,310(3)	1.0%
Marc D. Doubleday	117,000(4)	*
George A. Hides	38,375(5)	*
Robert L. McGinnis	123,500(6)	*
Laurel Omert, M.D.	18,750(7)	*
Donna O Neill-Mulvihill	1,250(8)	*
Sophia Twaddell	50,250(9)	*
John Bierbaum	50,954(10)	*
Bruce S. Chelberg	50,954(11)	*
Alan L. Heller	22,558(12)	*
Paul M. Ness, M.D.	50,954(13)	*
David A. Savner	67,954(14)	*
Edward C. Wood, Jr.	22,287(15)	*
Visium Asset Management LLC 950 Third Avenue. New York, New York 10022	2,575,836(16)	9.6%
Bank of American Corporation 100 North Tryon Street, Floor 25, Bank of America Corporate Center Charlotte, North Carolina 28255	2,018,022(17)	7.5%
PepsiAmericas, Inc. 60 South Sixth Street Suite 3880 Minneapolis, Minnesota 55402	1,502,345(18)	5.6%
State of Wisconsin Investment Board P.O. Box 7842 Madison, Wisconsin 53707	1,437,532(19)	5.4%
All Directors and Executive Officers as a Group (14 persons)	1,732,546	6.2%

* 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.

Table of Contents

- (2) Includes 310,000 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 250,000 shares acquirable pursuant to stock options not currently exercisable or exercisable within 60 days.
- (3) Includes 177,000 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 150,000 shares acquirable pursuant to stock options not currently exercisable or exercisable within 60 days.
- (4) Includes 112,000 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 75,000 shares acquirable pursuant to stock options not currently exercisable or exercisable within 60 days.
- (5) Includes 37,375 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 83,125 shares acquirable pursuant to stock options not currently exercisable or exercisable within 60 days.
- (6) Includes 122,000 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 105,000 shares acquirable pursuant to stock options not currently exercisable or exercisable within 60 days.
- (7) Includes 18,750 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 81,250 shares acquirable pursuant to stock options not currently exercisable or exercisable within 60 days.
- (8) Includes 1,250 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 53,750 shares acquirable pursuant to stock options not currently exercisable or exercisable within 60 days.
- (9) Includes 47,500 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 87,500 shares acquirable pursuant to stock options not currently exercisable or exercisable within 60 days.
- (10) Includes 45,000 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 45,000 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 20,000 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 45,000 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 60,000 shares of common stock which Mr. Savner is entitled to acquire pursuant to stock options currently exercisable or exercisable within 60 days.
- (15) Includes 20,000 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/A filed with the Securities and Exchange Commission by Visium Asset Management LLC and certain affiliated investment funds on February 14, 2007.
- (17) Based on information reported in the Schedule 13G filed with the Securities and Exchange Commission by Bank of America Corporation and certain affiliated entities on February 8, 2007.
- (18) Based on information reported in the Schedule 13G filed with the Securities and Exchange Commission by PepsiAmericas, Inc.
- (19) Based on information reported in the Schedule 13G filed with the Securities and Exchange Commission by the State of Wisconsin Investment Board on February 13, 2007.

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, 2008 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 2006 and 2007 fiscal years, the following fees were billed to us by KPMG:

	2006	2007
<i>Audit Fees</i>	\$ 372,100	\$ 393,100
<i>Audit Related Fees</i>		
<i>Tax Fees</i>	17,000	17,500
<i>All Other Fees</i>	5,000	13,000

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 2006 and 2007 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 2009 fiscal year, rather than the 2008 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 2008.

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, 2008, 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

Table of Contents

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 2008 annual meeting of stockholders will be held on or about September 25, 2008. Therefore, the deadline under our bylaws for timely submission of director nominations and stockholder proposals for consideration at our 2008 annual meeting is currently expected to be July 27, 2007. 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

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 September 25, 2007. Vote by Internet o Log on to the Internet and go to www.investorvote.com o Follow the steps outlined on the secured website. Vote by telephone o 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. o 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.

Annual Meeting Proxy Card

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

A Proposals The Board of Directors recommends a vote **FOR** the listed nominees and **FOR** Proposals 2 and 3.

1.Election of Directors

- 01 Steven A. Gould, M.D. For Withhold
- 02 John F. Bierbaum For Withhold
- 03 Bruce S. Chelberg For Withhold
- 04 Alan L. Heller For Withhold
- 05 Paul M. Ness, M.D. For Withhold
- 06 David A. Savner For Withhold
- 07 Edward C. Wood, Jr. For Withhold

2. To ratify the appointment of KPMG LLP as independent auditors of the Company to serve for the Company's 2008 fiscal year. For Against Abstain

3. In their discretion, to act in any other matters which may properly come before the Annual Meeting and any adjournment or postponement thereof. For Against Abstain

B Non-Voting Items Change of Address Please print your new address below.

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

C 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 (mm/dd/yyyy) Please print date below. Signature 1 Please keep signature within the box Signature 2 Please keep signature within the box

Table of Contents

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

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 SEPTEMBER 25, 2007 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 Wednesday, September 25, 2007, 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 there of, 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.)