

THORATEC CORP
Form DEF 14A
April 20, 2007

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**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
SCHEDULE 14A**

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 §240.14a-12

Thoratec Corporation

(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:

- 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:

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April 20, 2007

Dear Shareholder:

You are cordially invited to attend the Thoratec Corporation 2007 Annual Meeting of Shareholders to be held on Friday, May 18, 2007 at 9:00 a.m., Pacific Daylight Time, at our executive offices located at 6101 Stoneridge Drive, Pleasanton, California 94588. Details regarding the meeting and the business to be conducted are more fully described in the accompanying Notice of Annual Meeting of Shareholders and Proxy Statement.

Your vote is very important. Whether or not you plan to attend the Annual Meeting, please vote as soon as possible. You may vote in person at the meeting or by mail, by telephone or over the Internet. Your vote by written proxy, by telephone or over the Internet will ensure your representation at the Annual Meeting if you cannot attend in person. Please review the instructions on the proxy card regarding your voting options.

Thank you for your on-going support of and continued interest in Thoratec Corporation.

Very truly yours,

Gerhard F. Burbach
President and Chief Executive Officer

Corporate Headquarters
Thoratec Corporation, 6035 Stoneridge Drive, Pleasanton, CA 94588
Tel 925-847-8600 Fax 925-847-8574 www.thoratec.com

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THORATEC CORPORATION

**NOTICE OF 2007 ANNUAL MEETING OF SHAREHOLDERS
To Be Held on May 18, 2007**

To the Shareholders of Thoratec Corporation:

NOTICE IS HEREBY GIVEN, that the 2007 Annual Meeting of Shareholders of Thoratec Corporation, a California corporation (Thoratec or the Company), will be held on Friday, May 18, 2007 at 9:00 a.m., Pacific Daylight Time, at our executive offices located at 6101 Stoneridge Drive, Pleasanton, California 94588 for the following purposes:

To elect seven directors to serve for the ensuing year or until their successors are elected and qualified;

To ratify the appointment of Deloitte & Touche LLP as independent auditors of the Company for its fiscal year ending December 29, 2007; and

To transact such other business as may properly come before the meeting or any adjournment thereof.

The foregoing items of business are more fully described in the Proxy Statement accompanying this Notice. Only shareholders of record at the close of business on March 31, 2007 are entitled to notice of, to attend and to vote at the meeting and any adjournments thereof. All shareholders are cordially invited to attend the meeting in person. Any shareholder attending the meeting may vote in person even if such shareholder previously signed and returned a proxy. If you own shares through a broker, and you wish to attend and vote in person at the meeting, you must obtain from your broker a proxy issued in your name.

For the Board of Directors

David A. Lehman
Senior Vice President, General Counsel and Secretary

Pleasanton, California
April 20, 2007

IMPORTANT: WHETHER OR NOT YOU EXPECT TO ATTEND THE MEETING, PLEASE COMPLETE, DATE AND SIGN THE ENCLOSED PROXY AND MAIL IT PROMPTLY IN THE ENCLOSED POSTAGE PAID ENVELOPE OR VOTE BY TELEPHONE OR THROUGH THE INTERNET ACCORDING TO THE INSTRUCTIONS INCLUDED WITH THE PROXY CARD.

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THORATEC CORPORATION

**PROXY STATEMENT
FOR 2007 ANNUAL MEETING OF SHAREHOLDERS**

The Board of Directors of Thoratec Corporation, a California corporation (Thoratec or the Company), is furnishing this Proxy Statement to you in connection with our solicitation of proxies to be used at our 2007 Annual Meeting of Shareholders to be held on Friday, May 18, 2007 at 9:00 a.m., Pacific Daylight Time, or at any adjournments or postponements thereof (the Annual Meeting), for the purposes set forth in this Proxy Statement and in the accompanying Notice of 2007 Annual Meeting of Shareholders. The Annual Meeting will be held at our executive offices located at 6101 Stoneridge Drive, Pleasanton, California 94588. The telephone number at that address is (925) 847-8600.

The date of this Proxy Statement is April 20, 2007 and it was mailed on or about April 20, 2007 to all shareholders entitled to vote at the Annual Meeting.

INFORMATION CONCERNING SOLICITATION AND VOTING

Record Date and Shares Outstanding

Shareholders of record at the close of business on March 31, 2007 (the Record Date), are entitled to notice of, and to vote at, the Annual Meeting. As of the Record Date, 53,158,621 shares of the Company s common stock (Common Stock) were outstanding. The Company s Common Stock is listed on the NASDAQ Global Select Market.

Voting

Every shareholder voting for the election of directors may exercise cumulative voting rights and give one candidate a number of votes equal to the number of directors to be elected multiplied by the number of votes to which the shareholder s shares are entitled or, alternatively, distribute such shareholder s votes on the same principle among as many candidates as the shareholder may select, provided that votes cannot be cast for more than seven candidates. However, no shareholder will be entitled to cumulate votes for a candidate unless the candidate s name has been placed in nomination prior to the voting and the shareholder, or any other shareholder, has given notice at the meeting prior to the voting of the intention to cumulate votes for that candidate. On all other matters, each share is entitled to one vote on each proposal that properly comes before the Annual Meeting.

Methods of Voting

You may vote by mail, by telephone, over the Internet or in person at the meeting.

Voting by Mail. By signing and returning the proxy card in the enclosed prepaid and addressed envelope, you are authorizing individuals named on the proxy card (known as proxies) to vote your shares at the meeting in the manner you indicate. We encourage you to sign and return the proxy card even if you plan to attend the meeting. In this way, your shares will be voted if you are unable to attend the meeting. If you received more than one proxy card, it is an indication that your shares are held in multiple accounts. Please sign and return all proxy cards to ensure that all of your shares are voted.

Voting by Telephone. To vote by telephone, please follow the instructions included with your proxy card. If you vote by telephone, you do not need to complete and mail your proxy card. If you received the proxy materials over the Internet, please follow the voting instructions you will receive by e-mail on about April 20, 2007.

Voting over the Internet. To vote over the Internet, please follow the instructions included with your proxy card. If you vote over the Internet, you do not need to complete and mail your proxy card. If you received the proxy

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materials over the Internet, please follow the voting instructions you will receive by e-mail on or about April 20, 2007.

Voting in Person. If you plan to attend the meeting and vote in person, we will provide you with a ballot at the meeting. If your shares are registered directly in your name, that is, you hold a share certificate, you are considered the shareholder of record and you have the right to vote in person at the meeting. If your shares are held in the name of your broker or other nominee, you are considered the beneficial owner of shares held in street name. As a beneficial owner, if you wish to vote at the meeting, you will need to bring with you to the meeting a legal proxy from your broker or other nominee authorizing you to vote such shares. Contact your broker or other record holder of the shares for assistance if this applies to you.

Quorum; Abstentions; Broker Non-Votes

The presence in person or by proxy of a majority of the shares of Common Stock outstanding and entitled to vote on the record date is required for a quorum at the Annual Meeting. Both abstentions and broker non-votes are counted as present for purposes of determining the presence of a quorum, but broker non-votes will not be counted towards the tabulation of votes cast on proposals presented to shareholders.

Broker non-votes include shares for which a bank, broker or other nominee (i.e., record) holder has not received voting instructions from the beneficial owner and for which the nominee holder does not have discretionary power to vote on a particular matter. Under the rules that govern brokers who are record owners of shares that are held in brokerage accounts for the beneficial owners of the shares, brokers who do not receive voting instructions from their clients have the discretion to vote uninstructed shares on routine matters but have no discretion to vote the uninstructed shares on non-routine matters. Both proposals to be voted on at the Annual Meeting are routine matters.

Vote Required

The election of directors at the Annual Meeting requires the affirmative vote of a plurality of the votes cast at the Annual Meeting.

Each other item to be voted on at the Annual Meeting requires the affirmative vote of a majority of the shares present in person or represented by proxy and entitled to vote at the Annual Meeting.

All votes will be tabulated by the inspector of elections appointed for the Annual Meeting. The inspector of elections will separately tabulate affirmative and negative votes, abstentions and broker non-votes. David A. Lehman, Senior Vice President, General Counsel and Secretary of the Company, has been appointed as the inspector of elections for the Annual Meeting.

Revocability of Proxies

Any proxy given pursuant to this solicitation may be revoked by the person giving it at any time before its use by delivering to our Corporate Secretary a written notice of revocation or a duly executed proxy bearing a later date or by attending the Annual Meeting and voting in person. Your presence at the Annual Meeting will not in and of itself be sufficient to revoke your proxy.

Solicitation of Proxies

The cost of soliciting proxies in connection with this Proxy Statement has been or will be borne by us. In addition to solicitation by mail, we may request that banks, brokers and other custodians, nominees and fiduciaries send Proxy Statements to the beneficial owners of Common Stock. We may reimburse these banks, brokers and other custodians,

nominees, fiduciaries and other persons representing beneficial owners of Common Stock for their expenses in forwarding solicitation material to such beneficial owners. Some of our directors, officers and other employees may, without additional compensation, solicit proxies personally, or by telephone, facsimile or e-mail. We have also engaged Morrow & Co., Inc., an outside proxy solicitor, to assist us in soliciting proxies in conjunction with the Annual Meeting. We estimate the cost of the outside proxy solicitation services will be \$6,000.

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Householding of Annual Disclosure Documents

The Securities and Exchange Commission (the SEC) has approved a rule governing the delivery of annual disclosure documents. This rule allows us to send a single set of our Annual Report and Proxy Statement to any household at which two or more Thoratec shareholders reside if we believe that the shareholders are members of the same family. Some banks, brokers and other intermediaries may be participating in this practice of householding proxy statements and annual reports. If you and others who share your mailing address own Common Stock in street name, meaning through bank or brokerage accounts, you may have received a notice that your household will receive only one annual report and proxy statement from each company whose stock is held in such accounts. Unless you responded that you did not want to participate in householding, a single copy of this Proxy Statement and the 2006 Annual Report have been sent to your address. This rule benefits both our shareholders and us. It reduces the volume of duplicate information received at a shareholder's house and helps reduce our expenses. Each shareholder, however, will continue to receive individual proxy cards or voting instruction forms.

If your household has previously received a single set of disclosure documents, but you would prefer to receive your own copy this year or in future years, you should contact your bank, broker or other nominee record holder. We can also deliver a separate copy of either our Annual Report or Proxy Statement to any shareholder upon either written request to Thoratec Corporation, 6035 Stoneridge Drive, Pleasanton, California 94588, Attention: Corporate Secretary, or upon oral request by calling (925) 847-8600. Similarly, if you share an address with another Thoratec shareholder and together both of you wish to receive only a single set of our annual disclosure documents, please follow the same instructions. In addition, copies of our SEC filings and certain other submissions are made available free of charge on the investor relations page of our website at www.thoratec.com as soon as practicable after electronically filing or furnishing these documents with the SEC.

BOARD OF DIRECTORS STRUCTURE AND COMPENSATION

Structure and Committees

The current members of our Board of Directors (the Board) are J. Donald Hill, M.D., Gerhard F. Burbach, Howard E. Chase, J. Daniel Cole, Neil F. Dimick, D. Keith Grossman, William M. Hitchcock, George W. Holbrook, Jr., and Daniel M. Mulvena. Dr. Hill serves as Chairman of the Board. Messrs. Hitchcock and Holbrook will not stand for re-election at the Annual Meeting. We are currently in the process of identifying and interviewing candidates to fill the resulting vacancies in the Board. The Board held a total of ten meetings during our 2006 fiscal year, which ended on December 30, 2006. During the 2006 fiscal year, the Board had an Audit Committee, a Compensation and Option Committee, and a Nominating and Corporate Governance Committee. Each director attended at least 75% of the aggregate number of meetings of the Board and the committees on which he served. While the Company encourages all members of the Board to attend the annual meetings of shareholders, there is no formal policy as to their attendance at annual meetings. All members of the Board attended the 2006 Annual Meeting of Shareholders.

The Board has determined that each of the current directors standing for re-election is an independent director, as defined by the NASDAQ corporate governance listing standards and Rule 10A-3 of the Securities Exchange Act of 1934, as amended (the Exchange Act), except for Gerhard F. Burbach, who serves as our President and Chief Executive Officer, and D. Keith Grossman, who served as our President and Chief Executive Officer until January 2006. The Board annually evaluates the independence of its members. A director will not qualify as independent unless the Board affirmatively determines that the director has no material relationship with the Company. In making its determination, the Board considers business and other applicable relationships in accordance with the director independence standards of The Nasdaq Stock Market, Inc. (NASDAQ), as currently in effect. The Board has also determined that all members of the Board's committees are independent of the Company under the director

independence standards of NASDAQ. In addition, our independent directors meet in regularly scheduled executive sessions throughout the year.

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Audit Committee

Our Audit Committee met fourteen times during fiscal 2006. The members of this committee are Messrs. Cole, Dimick and Hitchcock, with Mr. Dimick serving as Chairman. The Audit Committee reviews our auditing, accounting, financial reporting and internal control functions and selects our independent auditors. This committee operates under a written charter adopted by our Board. The Audit Committee reviews and reassesses the charter at least annually, and the charter was last amended in February 2006.

The Board has determined that one member of the Audit Committee, Chairman Neil Dimick, is an audit committee financial expert, as that term is defined under Section 407 of the Sarbanes-Oxley Act of 2002 and the rules promulgated by the SEC in furtherance of Section 407. As described above, Mr. Dimick is an independent director. The purposes of our Audit Committee include:

- Overseeing our accounting and financial reporting process;
- Overseeing the audits of our financial statements;
- Overseeing our relationship with our independent auditors; and
- Overseeing our system of internal controls.

In discharging its duties, our Audit Committee, among its other duties:

- Recommends to the Board the selection of the independent auditors and their compensation, evaluates the independent auditors and, where appropriate, recommends the replacement of the independent auditors;
- Meets with management and the independent auditors to review and discuss the annual financial statements and the report of the independent auditors thereon and, to the extent the independent auditors or management brings any such matters to the attention of the Audit Committee, to discuss significant issues encountered in the course of the audit work, if any, such as restrictions on the scope of activities or access to required information;
- Meets quarterly with management and the independent auditors to review and discuss the quarterly financial statements;
- Reviews significant changes to our accounting principles and practices proposed by the independent auditors or management;
- Meets with management and the independent auditors to review and discuss reports on the adequacy and effectiveness of our internal controls; and
- Reviews and approves all related party transactions.

See Report of the Audit Committee of the Board of Directors below for more information.

Compensation and Option Committee

Our Compensation and Option Committee met eight times during fiscal 2006. The members of this committee are Messrs. Holbrook and Mulvena and Dr. Hill, with Mr. Mulvena serving as Chairman. This committee operates under

a written charter adopted by our Board, which was most recently amended in February 2006. As described above, all members of the Compensation and Option Committee are independent directors. In addition, all Compensation and Option Committee members are outside directors within the meaning of Section 162(m) of the Internal Revenue Code of 1986, as amended (the Code), to allow the Company a tax deduction for certain employee compensation exceeding \$1,000,000 for an individual. All Compensation and Option Committee members are also outside directors within the meaning of Exchange Act Rule 16b-3 to exempt certain option grants and similar transactions from the short-swing profits prohibition of Section 16 of the Exchange Act. Our Compensation and Option Committee:

Reviews compensation and benefits for our employees generally and for our senior executives specifically, and makes recommendations to the full Board; and

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Has authority to grant-equity based awards under our 2006 Incentive Stock Plan to officers, employees and consultants.

Among the Committee's duties and responsibilities set forth in its charter, the Committee has direct responsibility for and authority to (i) review and approve corporate goals and objectives relevant to chief executive officer compensation, evaluate the chief executive officer's performance in light of those goals and objectives, and set the chief executive officer's compensation level based on this evaluation; (ii) develop, review and approve compensation policies and practices applicable to the Company's officers who are deemed to be executive officers of the Company for SEC reporting purposes, including the criteria upon which executive compensation is based, the specific relationship of corporate performance to executive compensation and the composition of benefits; (iii) make recommendations to the Board with respect to the Company's incentive compensation and equity-based compensation plans; (iv) review the compensation and benefits offered to non-employee directors and recommend changes to the Board as appropriate; and (v) administer and evaluate the Company's incentive, equity-based and other executive compensation programs, including approving guidelines, making grants and awards and establishing annual award levels for employee stock options, units, restricted shares and other incentive and equity-based awards under such programs, interpreting and promulgating rules relating to the plans, modifying or canceling grants or awards, designating eligible participants and imposing limitations and conditions on grants or awards.

For each executive officer other than the chief executive officer, the chief executive officer makes recommendations for annual adjustments to compensation levels and short-term and long-term incentive compensation components to the Committee based upon his assessment of each executive officer's performance, retention risks, potential within the organization and the results of benchmarking studies, as described in the Compensation Discussion and Analysis section of this Proxy Statement. The Committee reviews with the chief executive officer these assessments and recommendations and determines whether or not to approve and/or modify his recommendations.

Consistent with prior years, an independent compensation consultant, Compensia, Inc., was retained by the Committee to prepare competitive benchmarking studies as to, and advise the Committee on, both executive and director compensation including base salary or fees, cash incentive compensation, and long-term equity incentive compensation. Compensia is engaged by, reports to and is accountable to the Committee, and the firm may not conduct any other work for Thoratec without the authorization of the Committee. Compensia did not provide any services to Thoratec in 2006 beyond its engagement as an advisor to the Committee. Compensia is an independent consultant specializing in compensation matters in the technology industry.

See the discussion in the Compensation Discussion and Analysis section of this Proxy Statement, including the Competitive Benchmarking section, for a full discussion regarding processes and procedures for the determination of executive compensation.

Compensation Committee Interlocks And Insider Participation

During fiscal 2006, none of our executive officers served on the board of directors or compensation committee of another company that had an executive officer serve on our Board or our Compensation and Option Committee. In addition, none of the members of our Compensation and Option Committee was an officer or employee of Thoratec or any of its subsidiaries during fiscal 2006 or was formerly an officer of Thoratec or any of its subsidiaries at any time in the past.

See Report of the Compensation and Option Committee of the Board of Directors below for more information.

Corporate Governance and Nominating Committee

Our Corporate Governance and Nominating Committee met six times during fiscal 2006. The members of this committee are Messrs. Chase, Cole and Hitchcock, with Mr. Cole serving as Chairman. This committee operates

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under a written charter adopted by our Board, which was most recently amended in February 2006. The purpose of the Corporate Governance and Nominating Committee is to:

Identify and approve individuals qualified to serve as members of the Board;

Select director nominees for the next annual meeting of shareholders;

Review laws, rules and regulations regarding corporate governance and make appropriate recommendations to the Board; and

Provide oversight with respect to corporate governance and ethical conduct.

Board Compensation

Directors who are employees of Thoratec do not receive additional compensation for serving on the Board or its committees. The following table sets forth the compensation earned by Thoratec's non-employee directors for their service on the Board in 2006.

DIRECTOR COMPENSATION FOR FISCAL 2006

Name	Fees Earned or Paid in	Stock	All Other	Total
	Cash (\$)	Awards(1)(2) (\$)	Compensation (\$)	
J. Donald Hill, M.D.	51,000	64,750		115,750
Howard E. Chase	34,000	64,750		98,750
J. Daniel Cole	46,000	64,750		110,750
Neil F. Dimick	52,000	64,750		116,750
D. Keith Grossman	31,000	64,750		95,750
William M. Hitchcock	42,000	64,750		106,750
George W. Holbrook, Jr.	36,000	64,750		100,750
Daniel M. Mulvena	45,000	64,750		109,750

(1) At December 30, 2006, Dr. Hill and Messrs. Chase, Cole, Dimick, Hitchcock, Holbrook and Mulvena held outstanding options to purchase 40,000, 30,000, 35,625, 31,875, 40,000, 40,000 and 45,000 shares, respectively, and Mr. Grossman did not have any outstanding options. The non-employee directors were not granted any options to purchase common stock in 2006. At December 30, 2006, Dr. Hill and Messrs. Chase, Cole, Dimick, Grossman, Hitchcock, Holbrook and Mulvena each held 5,000 shares of restricted stock, all of which were granted in June 2006.

(2) The assumptions made in the valuation of such restricted stock are set forth in the Notes to Consolidated Financial Statements in Thoratec's Annual Report on Form 10-K for the year ended December 30, 2006. The grant date fair value of the restricted stock granted to each non-employee director was equal to the expense recognized for such stock.

All non-employee directors receive a \$25,000 annual retainer and \$1,500 for each quarter in which the director attends one or more Board meetings. Each member, other than the Chairman, of the Audit Committee receives a \$1,000 annual retainer and \$1,500 for each quarter in which the committee member attends one or more Audit Committee meetings. Each member, other than the Chairman, of the Compensation and Option Committee and the Corporate Governance and Nominating Committee receives a \$1,000 annual retainer and \$1,000 for each quarter in which a committee member attends one or more Compensation and Option Committee meetings and Corporate Governance and Nominating Committee meetings, respectively. In addition to the annual Board retainer, the Chairman of the Board receives a \$15,000 annual retainer. In lieu of the annual Audit Committee retainer, the Chairman of the Audit Committee receives a \$15,000 annual retainer; in lieu of the annual Compensation and Option Committee retainer, the Chairman of the Compensation and Option Committee receives a \$10,000 annual retainer; and in lieu of the Corporate Governance and Nominating Committee retainer, the Chairman of the Corporate Governance and Nominating Committee receives a \$5,000 annual retainer. Non-employee directors do

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not receive any additional compensation for actions by unanimous written consent of the Board or any of the committees.

Non-employee directors were eligible to participate in the Thoratec Corporation 2006 Incentive Stock Plan (the 2006 Plan). The 2006 Plan provides for the automatic grant of restricted Common Stock to our non-employee directors. The 2006 Plan provides that in addition to any other awards that non-employee directors may be granted, non-employee directors will automatically be granted restricted stock bonuses as follows:

Initial award of 7,000 shares of restricted stock (Initial Grant). Such shares will vest in four equal annual installments beginning on the one year anniversary of the date of grant (which is the effective date of commencement of service as a Board member).

Annual award of 5,000 shares of restricted stock (Annual Grant). Such shares will vest in four equal annual installments such that the award is fully vested after four years of service as a Board member. The Annual Grant is granted on the date of the first meeting of the Board following the annual meeting of the Company s shareholders.

The Initial Grant and Annual Grants are made at no cost to the non-employee directors. There were no Initial Grants made in 2006. Each of the non-employee directors received an Annual Grant of 5,000 shares of restricted stock in June 2006.

CODE OF ETHICS AND CORPORATE GOVERNANCE

We have adopted a Code of Ethics that applies to all of our directors, officers and employees, and which meets the requirements of Item 406 of Regulation S-K of the Exchange Act. Our Code of Ethics is available on our website at www.thoratec.com. The code covers topics, including but not limited to, potential conflicts of interest, compliance with applicable governmental laws, rules and regulations and the reporting of violations of the code. Any amendments to the Code of Ethics will be posted on our website. The Board has the sole authority to approve any waiver of the Code of Ethics relating to the activities of any of our senior financial officers, other executive officers and directors. Any waiver of the Code of Ethics for these individuals will be disclosed promptly on Form 8-K or any other means approved by applicable SEC rules and NASDAQ listing standards.

For information on our corporate governance in addition to our Code of Ethics, including the Company s Compliance Program, the charters approved by the Board for the Audit Committee, the Compensation and Option Committee, and the Corporate Governance and Nominating Committee, and the Audit Committee Complaint Procedures, please visit the Company s investor relations website at www.thoratec.com, under Investor Relations Corporate Governance.

DIRECTOR NOMINATIONS

Criteria for Nomination to the Board

The Corporate Governance and Nominating Committee considers the appropriate balance of experience, skills and personal characteristics required of Board members, and seeks to insure that at least a majority of the directors are independent under the rules of NASDAQ, and that members of the Company s Audit Committee meet the financial literacy and other requirements under NASDAQ rules. Nominees for director are selected on the basis of their depth and breadth of experience, wisdom, integrity, ability to make independent analytical inquiries, understanding of the Company s business environment, willingness to devote adequate time to Board duties, the interplay of the candidate s experience and skills with those of other Board members, and the extent to which the candidate would be a desirable addition to the Board and any committees of the Board.

Shareholder Recommendations for Director

The Corporate Governance and Nominating Committee will consider written recommendations for director candidates from shareholders. Any such recommendations should be submitted to the Corporate Governance and Nominating Committee, c/o the Corporate Secretary of the Company, and should include the following

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information: (a) all information relating to the candidate that is required to be disclosed pursuant to Regulation 14A under the Exchange Act (including the person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected); (b) the name(s) and address(es) of the shareholder(s) making the recommendation and the number of shares of Common Stock that are owned beneficially and of record by the shareholder(s); and (c) appropriate biographical information and a statement as to the qualifications of the candidate.

Alternatively, shareholders intending to appear at an annual meeting of shareholders in order to nominate a candidate for election by the shareholders at the meeting (in cases where the Board does not intend to nominate the candidate or where the Corporate Governance and Nominating Committee was not requested to consider the candidate) must comply with the procedures in Section 4(c) of the Company's By-Laws. Shareholders can obtain a copy of the Company's By-Laws, without charge, by writing to our Corporate Secretary. Under the Company's By-Laws, and as described under "Deadline for Receipt of Shareholder Proposals" below, written notice of a nomination must be received by our Corporate Secretary no earlier than January 19, 2008 and no later than February 18, 2008 in order to be considered at the 2008 annual meeting of shareholders.

Process for Identifying and Evaluating Director Candidates

The process for identifying and evaluating candidates for the Board is initiated by identifying a slate of candidates who meet the criteria for selection as nominees and have the specific qualities or skills being sought based on input from members of the Board and, if the Corporate Governance and Nominating Committee deems appropriate, a third-party search firm. These candidates are evaluated by the Corporate Governance and Nominating Committee by reviewing the candidates' biographical information and qualifications, and by checking the candidates' references. Qualified nominees are interviewed by at least one member of the Corporate Governance and Nominating Committee. Promising candidates meet with all members of the Board, and based on input from such interviews and the information obtained by the Corporate Governance and Nominating Committee, the committee evaluates which of the prospective candidates are qualified to serve as directors and whether the committee should recommend to the Board that the Board nominate, or elect to fill a vacancy, these final prospective candidates. Candidates recommended by the Corporate Governance and Nominating Committee are presented to the Board for selection as nominees to be presented for election by the shareholders or to fill a vacancy.

The Corporate Governance and Nominating Committee evaluates shareholder-recommended candidates using the same process and the same criteria it uses to evaluate candidates from other sources.

Board Nominees for the Annual Meeting

Dr. Hill and Messrs. Burbach, Chase, Cole, Dimick, Grossman and Mulvena, who are all current members of the Board, are the directors standing for re-election at the Annual Meeting.

COMMUNICATIONS WITH THE BOARD OF DIRECTORS

Shareholders may communicate directly with the Board by sending a certified or registered letter to any individual director, group of directors or Board committee c/o the Corporate Secretary of the Company, at the Company's main business address set forth above or by sending an email to any of the same individuals or groups at board@thoratec.com. The Corporate Secretary will review the correspondence and forward it to the individual director, group of directors or committee of the Board to whom the communication is directed, as applicable, if the communication is relevant to Thoratec's business and financial operations, policies or corporate philosophy. Communications that are threatening, illegal or similarly inappropriate, and advertisements, solicitations for periodical or other subscriptions, and other similar communications generally will not be forwarded to any director or group of directors.

Table of Contents**PROPOSAL ONE****ELECTION OF DIRECTORS****Nominees**

A board of seven directors is to be elected at the Annual Meeting. Unless otherwise instructed, the proxy holders will vote the proxies received by them for the seven nominees named below, each of whom is presently serving as one of our directors. If additional persons are nominated for election as directors, the proxy holders intend to vote all proxies received by them in accordance with cumulative voting to elect as many of the nominees listed below as possible. In such event, the proxy holders will determine the specific nominees for whom such votes will be cumulated. The term of office for each person elected as a director will continue until the next annual meeting of shareholders or until his successor has been elected and qualified. We do not expect that any nominee will be unable or will decline to serve as a director.

The following table provides information concerning our director nominees:

Name of Nominee	Age	Position with Our Company	Director Since
J. Donald Hill	70	Director and Chairman of the Board	1976
Gerhard F. Burbach	45	Director, President and Chief Executive Officer	2006
Howard E. Chase	70	Director	1986
J. Daniel Cole	60	Director	1997
Neil F. Dimick	57	Director	2003
D. Keith Grossman	47	Director	1996
Daniel M. Mulvena	58	Director	1997

There are no family relationships among any of our directors or executive officers.

J. Donald Hill, M.D. has been a director of the Company since its inception. In January 1995, Dr. Hill became Chairman of the Board. Dr. Hill was the director of the Heart Failure, Transplant, Artificial Heart and Circulatory Support Program at California Pacific Medical Center in San Francisco from 1984 to 2003. Dr. Hill became the Surgical Director of the Congestive Heart Failure Program at the University of California at San Francisco in February 2004. Dr. Hill has been a practicing cardiovascular surgeon since 1966.

Gerhard F. Burbach, President, Chief Executive Officer and Director, joined our Company as President and Chief Executive Officer in January 2006. He was elected to the Board at the same time. Mr. Burbach previously served as President and Chief Executive Officer of Digirad Corporation, a provider of solid-state imaging products and services to cardiologist offices, hospitals and imaging centers. Before that he served for two years as president and chief executive officer of Bacchus Vascular Inc, a developer of interventional cardiovascular devices. Previously, he served for three years as chief executive officer of Philips Nuclear Medicine, a division of Philips Medical Systems specializing in nuclear medicine imaging systems. Until its acquisition by Philips Medical Systems, he spent four years at ADAC Laboratories, a provider of nuclear medicine imaging equipment and radiation therapy planning systems, where he became president and general manager of the nuclear medicine division. Mr. Burbach also spent six years with the consulting firm of McKinsey & Company, Inc., where he was most recently a senior engagement manager in the firm's healthcare practice. Mr. Burbach also serves as a member of the board of directors of Digirad.

Howard E. Chase became a director of our Company in November 1986. Since 2001, he has been the President and Chief Executive Officer of The Hollandbrook Group, LLC, which provides merger and acquisition consulting services to asset management firms and others. Mr. Chase served as President and Chief Executive Officer of Carret Holdings, Inc. (formerly Matrix Global Investments, Inc.) a holding company for asset management businesses, from June 1999 until December 2001. Mr. Chase served as President and Chief Executive Officer of Trident Rowan Group, Inc. (TRGI), a U.S. public holding company with interests in certain Italian companies and real estate, from September 1995 to March 1998 and Chairman of the Board of TRGI from March 1998 to December 1999.

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From 1984 to August 1995, Mr. Chase was a partner in the law firm of Morrison Cohen Singer & Weinstein, LLP in New York City. He acted as an advisor and special counsel to our Company from 1979 to 1995.

J. Daniel Cole became a director of our Company in June 1997. Since March 1997, Mr. Cole has been a general partner of the Spray Venture Fund of Boston. Mr. Cole was President and Chief Operating Officer of SciMed Life Systems Corporation, an interventional cardiology products company, from March 1993 to March 1995, and Senior Vice President and Group President of Boston Scientific Corporation's vascular business from March 1995 to March 1997. He has also held a number of senior executive positions at Baxter Healthcare Corporation from April 1982 to January 1993, including President of its Edwards Less Invasive Surgery Division and its Critical Care Division. Mr. Cole also serves as a member of the board of directors of several private companies.

Neil F. Dimick became a director of our Company in October 2003. Mr. Dimick was Executive Vice President and Chief Financial Officer of AmerisourceBergen Corporation, a pharmaceutical distributor, from August 2001 to May 2002, and served as Senior Executive Vice President and Chief Financial Officer and a director of Bergen Brunswig Corporation and was a member of that board's finance, investment and retirement committees for more than five years prior to its merger with AmeriSource Health in 2001. Mr. Dimick also spent eighteen years with the audit firm Deloitte & Touche LLP, where he was an audit partner and national director of the firm's real estate division. Mr. Dimick also serves as a member of the board of directors of Alliance Imaging, Inc., Emdeon Corporation, Mylan Laboratories, Inc., Resources Global Professionals and WebMD Corporation.

D. Keith Grossman became a director of our Company in February 1996. From January 1996 until January 2006, Mr. Grossman served as our President and Chief Executive Officer. Prior to joining us, Mr. Grossman was a Division President of Major Pharmaceuticals, Inc., from June 1992 to September 1995, at which time it was sold. From July 1988 to June 1992, Mr. Grossman served as the Vice President of Sales and Marketing for Calcitek, Inc., a manufacturer of implantable medical devices and a division of Sulzermedica (formerly Intermedics, Inc.). Prior to 1988, Mr. Grossman held various other sales and marketing management positions within the McGaw Laboratories Division of American Hospital Supply Corporation. Mr. Grossman also serves as a member of the board of directors of Intuitive Surgical, Inc.

Daniel M. Mulvena became a director of our Company in May 1997. Mr. Mulvena is the founder and owner of Commodore Associates, a consulting company. Mr. Mulvena was Group Vice President Cardiac/Cardiology and a member of the operating committee for Boston Scientific Corporation from February 1992 to May 1995. Prior to that, he was the President and Chief Executive Officer and Chairman of Lithox Systems, Inc., an early stage medical device company. Prior to that, Mr. Mulvena held a number of executive positions, including President of the Implants Division and President of the Cardiosurgery Division, at C.R. Bard, Inc. Mr. Mulvena also serves as member of the board of directors of Zoll Medical Corporation.

Required Vote; Recommendation of the Board

The election of directors at the Annual Meeting requires the affirmative vote of a plurality of the votes cast at the Annual Meeting. The seven nominees receiving the highest number of affirmative votes of the shares present or represented and entitled to vote shall be elected as directors. Votes withheld from any director are counted for purposes of determining the presence or absence of a quorum for the transaction of business, but have no further legal effect under California law. Unless marked to the contrary, proxies received will be voted **FOR** the seven nominees as the proxy holders determine in order to elect as many of the seven nominees as possible, whether or not by cumulative voting.

THE BOARD UNANIMOUSLY RECOMMENDS A VOTE FOR ELECTION TO THE BOARD OF EACH OF THE NOMINEES PROPOSED ABOVE.

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PROPOSAL TWO

RATIFICATION OF INDEPENDENT AUDITORS

In accordance with its charter, the Audit Committee has selected Deloitte & Touche LLP (Deloitte & Touche), independent auditors, to audit the Company s consolidated financial statements for fiscal 2007. The Board is asking shareholders to ratify the appointment of Deloitte & Touche as the Company s independent auditors for the fiscal year ending December 29, 2007.

Deloitte & Touche has served as our independent auditors since our inception. In accordance with standing policy, Deloitte & Touche periodically changes the personnel who work on our audit. In addition to performing the audit of our consolidated financial statements, Deloitte & Touche provided various other Audit-Related services during fiscal years 2006 and 2005. Representatives of Deloitte & Touche are expected to be present at the Annual Meeting and will have the opportunity to make a statement if they wish to do so. Additionally, they will be available to respond to appropriate shareholder questions.

Shareholder ratification of the selection of Deloitte & Touche as the Company s independent auditors is not required by the Company s By-Laws or applicable law. However, the Audit Committee is submitting the selection of Deloitte & Touche to the shareholders for ratification as a matter of good corporate practice. In the event the shareholders fail to ratify the appointment, the Audit Committee may reconsider this appointment. Even if the appointment is ratified, the Audit Committee, in its discretion, may direct the appointment of a different independent accounting firm at any time during the year if the Audit Committee determines that such a change would be in the Company s and its shareholders best interests.

Required Vote; Recommendation of the Board

The affirmative vote of the holders of a majority of the shares represented and entitled to vote at the Annual Meeting will be required to ratify the selection of Deloitte & Touche as the Company s independent auditors for the fiscal year ending December 29, 2007. Abstentions will be treated as being present and entitled to vote on the proposal and, therefore, will have the effect of votes against the proposal. Unless marked to the contrary, proxies received will be voted **FOR** ratification of the selection of Deloitte & Touche.

THE BOARD AND THE AUDIT COMMITTEE UNANIMOUSLY RECOMMEND A VOTE FOR RATIFICATION OF THE APPOINTMENT OF DELOITTE & TOUCHE AS THE COMPANY S INDEPENDENT AUDITORS.

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REPORT OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS¹

The Audit Committee of the Board serves as the representative of the Board for general oversight of the Company's financial accounting and reporting process, system of internal control and audit process.

Management has primary responsibility for preparing the Company's financial statements and for the Company's financial reporting process. The Company's independent auditors, Deloitte & Touche LLP, are responsible for expressing an opinion on the conformity of our audited financial statements to accounting principles generally accepted in the United States of America.

The Audit Committee hereby reports as follows:

The Audit Committee has reviewed and discussed the audited financial statements with management.

The Audit Committee has discussed with the independent auditors the matters required to be discussed by Statement of Auditing Standards No. 61, as modified or supplemented, as adopted by the PCAOB in Rule 3200T.

The Audit Committee has received the written disclosures and the letter from the independent auditors required by the Independence Standards Board Standard No. 1, as modified or supplemented, as adopted by the PCAOB in Rule 3600T, and has discussed with the independent auditors their independence.

The Audit Committee has also considered whether the provision of other non-audit services by Deloitte & Touche LLP to the Company is compatible with the auditors' independence.

Based on the review and discussions with management and the independent auditors referred to above, the Audit Committee recommended to the Board that the Company's audited financial statements for the fiscal year ended December 30, 2006 be included in the Company's 2006 Annual Report on Form 10-K for filing with the Securities and Exchange Commission.

Each of the members of the Audit Committee is independent as defined under the listing standards of NASDAQ.

Submitted By:

The Audit Committee

Neil F. Dimick, Chairman

J. Daniel Cole

William M. Hitchcock

¹ The Audit Committee Report will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or under the Exchange Act, except to the extent that our Company specifically incorporates such report by reference, and such report will not otherwise be deemed to be soliciting material to be filed under such Acts.

Table of Contents**FEES PAID TO ACCOUNTANTS FOR SERVICES RENDERED DURING FISCAL YEARS 2006 AND 2005.**

The fees billed to our Company for the fiscal years ended December 30, 2006 and December 31, 2005 by Deloitte & Touche, along with the member firms of Deloitte & Touche Tohmatsu and their respective affiliates, are presented below.

Audit and Non-Audit Fees

The following table presents fees for professional audit services rendered by Deloitte & Touche for the audit of the Company's annual financial statements for the years ended December 30, 2006 and December 31, 2005 and fees billed for other services rendered by Deloitte & Touche, the member firms of Deloitte & Touche Tohmatsu, and their respective affiliates during those periods. Amounts for fiscal 2005 include billings received during fiscal 2005 and fiscal 2006 for work related to the fiscal 2005 audit. Amounts for fiscal 2006 include billings received during fiscal 2006 and fiscal 2007 and estimates of unbilled time for work related to the fiscal 2006 audit.

	Fiscal Year 2006	Fiscal Year 2005
Audit Fees	\$ 1,911,692	\$ 1,531,395
Audit-Related Fees	11,158	25,265
Tax Fees		
All Other Fees		
Total	\$ 1,922,850	\$ 1,556,660

Audit Fees primarily represent amounts paid for the audit of the Company's annual financial statements, reviews of SEC Forms 10-Q and 10-K, audit of the Company's internal control over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act of 2002, and statutory audit requirements at non-U.S. locations.

Audit-Related Fees primarily relate to assurance and related services for acquisition due diligence, internal control reviews, and review of regulatory and statutory filings.

Policy on Audit Committee Pre-Approval of Audit and Non-Audit Services of Independent Auditor

It is the policy of the Audit Committee to approve in advance all audit and permissible non-audit services to be provided to the Company by its independent auditors. The Audit Committee may delegate the authority to pre-approve such services to a designated member or members of the Audit Committee, so long as any such delegated approvals are disclosed to the full Audit Committee at its next scheduled meeting. The Audit Committee approved all audit, audit-related, tax and other services provided by Deloitte & Touche for fiscal years 2006 and 2005 and the estimated costs of those services. Actual amounts billed, to the extent in excess of the estimated amounts, were periodically reviewed and approved by the Audit Committee. The Audit Committee reviews any non-audit procedures on an ongoing basis to ensure that the rendering of any such services is compatible with maintaining Deloitte & Touche's independence.

Table of Contents**SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT**

The following table sets forth certain information regarding the beneficial ownership of our Common Stock as of March 31, 2007 by:

Each of our directors;

Each Named Executive Officer, as defined in the Executive Compensation section below;

All directors or executive officers as a group; and

Each person who is known by us to own beneficially more than 5% of our Common Stock.

Name and Address(1)	Number of Shares Beneficially Owned(2)	Percent of Shares Beneficially Owned(2)
FMRCorp(3) 82 Devonshire Street Boston, MA 02109	7,814,394	12.82%
Massachusetts Financial Services Company(3) 500 Boylston Street Boston, MA 02116	2,995,270	5.33%
J. Donald Hill(4)	947,420	1.75%
William M. Hitchcock(5)	439,290	*
Lawrence Cohen(6)	235,596	*
Jeffrey W. Nelson(7)	197,739	*
George W. Holbrook, Jr.(8)	189,716	*
Gerhard F. Burbach(9)	184,306	*
David A. Lehman(10)	111,145	*
D. Keith Grossman	63,508	*
Daniel M. Mulvena(11)	53,750	*
J. Daniel Cole(12)	53,750	*
David V. Smith	40,000	*
Neil F. Dimick(13)	36,875	*
Howard E. Chase(14)	31,875	*
Cynthia L. Lucchese(15)	22,284	*
Directors and Executive Officers as a Group (13 persons)(16)	2,584,970	4.64%

* Less than 1%

(1) Unless otherwise indicated, the address of the persons set forth above is the address of our Company appearing elsewhere in this Proxy Statement.

(2) Applicable percentage ownership for each shareholder is based on 53,158,621 shares of Common Stock outstanding as of March 31, 2007, together with applicable options for such shareholder. Beneficial ownership

is determined in accordance with the rules of the SEC, and includes voting and investment power with respect to the shares. Beneficial ownership also includes shares of Common Stock subject to options and warrants exercisable or convertible within 60 days of March 31, 2007. Shares of Common Stock subject to outstanding options are deemed outstanding for computing the percentage of ownership of the person holding such options, but are not deemed outstanding for computing the percentage ownership of any other person. Except pursuant to applicable community property laws or as indicated in the footnotes to this table, to our knowledge, each shareholder identified in the table possesses sole voting and investment power with respect to all shares of Common Stock shown as beneficially owned by such shareholder and such shares have not been pledged as security by the shareholder.

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- (3) The number of shares beneficially owned is based on the named shareholder's most recent filings with the SEC on Schedule 13G as of December 31, 2006 for each of FMR Corp. and Massachusetts Financial Services Company.
- (4) Includes 904,295 shares of Common Stock held by J. Donald Hill Separate Property Living Trust U/A/D 7/23/04 (the J. Donald Hill Trust), a separate property trust. Dr. Hill is trustee of the J. Donald Hill Trust. Includes 38,125 shares of Common Stock issuable upon exercise of options exercisable within 60 days of March 31, 2007.
- (5) Includes 38,125 shares of Common Stock issuable upon exercise of options exercisable within 60 days of March 31, 2007.
- (6) Includes 213,750 shares of Common Stock issuable upon exercise of options exercisable within 60 days of March 31, 2007.
- (7) Includes 190,150 shares of Common Stock issuable upon exercise of options exercisable within 60 days of March 31, 2007.
- (8) Includes 144,091 shares of Common Stock held by Bradley Resources Company, an investment partnership. Mr. Holbrook is a general partner of Bradley Resources Company. Also includes 3,750 shares of Common Stock held by George W. Holbrook, Jr. and James R. McGoogan, as co-Trustees of the George W. Holbrook, Jr. trust, as amended and restated under Declaration dated May 6, 2003. Includes 38,125 shares of Common Stock issuable upon exercise of options by Mr. Holbrook within 60 days of March 31, 2007.
- (9) Includes 93,750 shares of Common Stock issuable upon exercise of options exercisable within 60 days of March 31, 2007.
- (10) Includes 97,190 shares of Common Stock issuable upon exercise of options exercisable within 60 days of March 31, 2007.
- (11) Includes 43,125 shares of Common Stock issuable upon exercise of options exercisable within 60 days of March 31, 2007.
- (12) Includes 26,875 shares of Common Stock issuable upon exercise of options exercisable within 60 days of March 31, 2007.
- (13) Includes 31,875 shares of Common Stock issuable upon exercise of options exercisable within 60 days of March 31, 2007.
- (14) Includes 28,125 shares of Common Stock issuable upon exercise of options exercisable within 60 days of March 31, 2007.
- (15) Includes 4,167 shares of Common Stock issuable upon exercise of options exercisable within 60 days of March 31, 2007.
- (16) Includes 839,215 shares of Common Stock issuable upon exercise of options exercisable within 60 days of March 31, 2007.

Table of Contents**SECURITIES AUTHORIZED FOR ISSUANCE UNDER
EQUITY COMPENSATION PLANS**

The following table provides information as of December 30, 2006 regarding securities authorized for issuance under the Company's equity compensation plans. The equity compensation plans of the Company include the 1993 Stock Option Plan, the 1996 Stock Option Plan, the 1996 Nonemployee Directors Stock Option Plan, the 1997 Stock Option Plan, the 2006 Incentive Stock Plan and the 2002 Employee Stock Purchase Plan (the ESPP). Each of these equity compensation plans was approved by the Company's shareholders.

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants, and Rights	Weighted-Average Exercise Price of Outstanding Options, Warrants, and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in the First Column)
Equity compensation plans approved by security holders	6,601,915	\$ 14.66	2,134,841(1)
Equity compensation plans not approved by security holders			
Total	6,601,915	\$ 14.66	2,134,841

(1) Includes 219,088 shares available for future issuance under the ESPP as of December 30, 2006.

COMPENSATION DISCUSSION AND ANALYSIS**OVERALL OBJECTIVES OF EXECUTIVE COMPENSATION PROGRAM**

Our compensation program for our Named Executive Officers is designed to attract, motivate and retain qualified executives with substantive experience in the development, invention, regulatory approval, manufacture, marketing and sale of new medical devices. Our executive compensation program is based on the following underlying principles:

Executives' total direct compensation (consisting of salary, annual incentive compensation, and long-term equity incentive opportunities) should be competitive;

The executive compensation program and payouts should be aligned with our strategic business goals;

A substantial portion of executives' compensation should be at risk and should vary based on both overall company performance and individual performance; and

The executive compensation program should align the interests of our Named Executive Officers with both short-term and long-term shareholder interests.

The Compensation and Option Committee assesses our executive compensation program annually to monitor our adherence to these principles.

DETERMINING EXECUTIVE COMPENSATION

The Compensation and Option Committee, with the assistance of its independent compensation consultant and input from management, determines compensation levels for our Named Executive Officers by compiling external benchmarks and assessing the competitiveness of our compensation levels relative to those benchmarks while taking into account each executive's level of responsibility, tenure with the Company, and individual performance.

Competitive Benchmarking

Each year the Compensation and Option Committee, with the assistance of its compensation consultant, benchmarks the competitiveness of the Named Executive Officers' total direct compensation. In addition, the

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Compensation and Option Committee also reviews the prevalence of other elements of compensation such as change of control and severance benefits and executive-level benefit plans as part of this annual study.

The goal of the Compensation and Option Committee's benchmarking is to assess the competitiveness of the Named Executive Officers' total direct compensation as compared to executives with comparable experience in similar positions and job-related responsibilities at companies in the medical technology industry of comparable size and, to the extent possible, geographic location. The Compensation and Option Committee and its compensation consultant, with input from management, have developed a primary peer group of corporations the compensation programs of which are reviewed for this annual benchmarking study.

The primary peer group consists of medical device companies of comparable size, based upon market capitalization and annual revenue. We have chosen not to limit the primary peer group to our immediate geographic peers as we compete for experienced executives in various other geographic regions where biotechnology/biomedical/pharmaceutical companies are located (including the San Francisco Bay Area, central New Jersey, Minneapolis and the greater Boston area). This primary peer group is used to formally benchmark each element of total direct compensation (described in more detail below).

In addition to the primary peer group, the Compensation and Option Committee also reviews the compensation practices of medical device companies that are much larger than Thoratec based on number of employees, market capitalization and revenue. Although the Compensation and Option Committee does not use information regarding these larger companies to formally benchmark the compensation levels provided to our Named Executive Officers (due to differences in the scope of job responsibilities for executives holding similar titles), the Compensation and Option Committee reviews the compensation practices and programs of these market leaders for purposes of determining/confirming best practices in our industry.

In developing the primary peer group and comparison information, the Compensation and Option Committee and its compensation consultant generally relied on compensation information reported in the peer group companies' public filings.

The following companies comprised the primary peer group for 2006 decision making:

American Medical Systems	ev3 Inc.	Intuitive Surgical, Inc.
Arrow International, Inc.	FoxHollow Technologies, Inc.	Kyphon Inc.
Arthrocare Corporation	Greatbatch, Inc.	Merit Medical Systems, Inc.
Cyberonics, Inc.	Haemonetics Corporation	SonoSite, Inc.
Datascope Corp.	Integra LifeSciences Holdings Corporation	Wright Medical Group, Inc.
Edwards LifeSciences Corporation		Zoll Medical Corporation

The Compensation and Option Committee targets base salaries for our Named Executive Officers at the 50th percentile, total cash compensation (comprised of base salary and annual incentive compensation) at the 75th percentile, and total direct compensation (comprised of base salary, annual incentive compensation and equity compensation) at the 75th percentile, in each case, as compared to the primary peer group. The Compensation and Option Committee has determined that providing compensation at these levels allows us to control base salaries while providing sufficient incentives to attract and retain highly qualified executives, remaining geographically competitive (taking into account the relatively high cost of our market as compared to other areas of the country) and adhering to the principles outlined above. The actual targeted total direct compensation for each Named Executive Officer may be above or below the 75th percentile reflecting the executive's tenure with the organization, overall individual contribution, scope of responsibilities and level of experience.

Compensation Determinations

In addition to the competitive benchmarking study, in making compensation decisions the Compensation and Option Committee also takes into account recommendations from our chief executive officer and our vice president of human resources, as well as information from other independent members of the board of directors.

For each Named Executive Officer other than the chief executive officer, the chief executive officer makes recommendations for annual adjustments to compensation levels and short-term and long-term incentive

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compensation components to the Compensation and Option Committee based upon his assessment of each Named Executive Officer's performance, retention risks, potential within the organization and the results of the benchmarking study described above. The Compensation and Option Committee reviews with the chief executive officer these assessments and recommendations and determines whether or not to approve and/or modify the recommendations. The chief executive officer's performance with respect to these individual factors is evaluated by the Compensation and Option Committee. Annual adjustments to the chief executive officer's compensation levels and short-term and long-term incentive compensation components are based on these assessments.

ELEMENTS OF EXECUTIVE COMPENSATION

The executive compensation program is comprised of the following elements, although not all the Named Executive Officers receive each element listed under "other compensation and benefits":

Total direct compensation, consisting of:

Base salary;

Annual cash incentive compensation; and

Long-term equity incentive compensation (including stock options and shares of restricted stock).

Other compensation and benefits, consisting of:

Participation in welfare benefit plans; and

Participation in tax-qualified and nonqualified deferred compensation plans.

Severance and change of control benefits.

Base Salaries

We offer all of our Named Executive Officers an annual base salary to compensate them for services rendered during the year. Base salaries are essential for the attraction and retention of talented executives and are determined consistent with the methodology outlined above. Salaries are reviewed annually by the Compensation and Option Committee, but do not automatically increase.

For 2006, the Compensation and Option Committee targeted base salaries for each Named Executive Officer in the 50th percentile of the primary peer group. In addition, the base salaries for our newly (in 2006) hired chief executive officer, Gerhard F. Burbach, and chief financial officer, David Smith, were fixed at a level the Compensation and Option Committee determined both reasonable (based upon benchmarking data from the primary peer group as described above) and necessary to secure each executive's agreement to join the Company. The following table summarizes adjustments (if any) made to base salaries for the other Named Executive Officers during 2006 to achieve this target:

Named Executive Officer	2006 Base Pay
Jeffrey W. Nelson	Unchanged
Lawrence Cohen	

Cynthia L. Lucchese
David A. Lehman

Increased by approximately 6.5% reflecting a decision by the Compensation and Option Committee to balance the compensation provided to the leaders of the Company's two main operating divisions/subsidiaries
Increased by 1.9%
Increased by approximately 10.4% reflecting an increase in the scope of his responsibilities

Table of Contents**Annual Cash Incentive Compensation**

We provide all Named Executive Officers the opportunity to earn variable cash compensation under either our Corporate Executive Incentive Plan or, with respect to our division/subsidiary presidents, the Executive Incentive Plan for their operating unit; provided, however, that in 2006 neither Keith Grossman (due to the announcement of his resignation in 2005) nor David Smith (due to his hiring at the end of 2006) participated in our annual bonus program. The purpose of these plans is to reward the Named Executive Officers for performance during a single fiscal year and to provide appropriate incentives for them to achieve those goals that are most important to the near and long-term success of the Company, as measured against specific performance criteria relative to financial results and individual performance. Target incentive bonus opportunities, expressed as a percentage of base salary, for the Named Executive Officers (other than Messrs. Grossman and Smith) for 2006 were as follows (in each case these levels were determined based upon comparable award levels within the primary peer group and consistent with the methodology outlined above):

Named Executive Officer	2006 Target Bonus Percentage
Gerhard F. Burbach	75%
Jeffrey W. Nelson	70%
Lawrence Cohen	70%(1)
Cynthia L. Lucchese	60%
David A. Lehman	50%

- (1) Mr. Cohen's target bonus percentage for 2006 was initially set at 60%, but was increased by the Compensation and Option Committee in August 2006 to reflect a desire by the Compensation and Option Committee to balance the compensation provided to the leaders of the Company's two main operating divisions/subsidiaries.

The actual annual bonus paid to each Named Executive Officer is determined based upon the Named Executive Officer's target bonus multiplied by the executive's relative achievement with respect to his or her individual performance goals and the Company's (or with respect to the division/subsidiary presidents, the operating unit's) achievement of two, equally-weighted financial goals (each described in more detail below).

Individual Performance Goals

At the beginning of each year, the Compensation and Option Committee, with input from our chief executive officer and vice president of human resources, establishes individual performance goals for each Named Executive Officer, other than the chief executive officer. Individual performance goals for the chief executive officer are established by the Compensation and Option Committee. These qualitative and quantitative performance goals vary by Named Executive Officer and focus upon strategic, operational and project-oriented objectives for the functional area over which the Named Executive Officer has responsibility that we believe will drive long-term growth and strategic positioning, but do not necessarily translate into current year financial results. At year end, the Compensation and Option Committee evaluates the performance of each Named Executive Officer relative to these qualitative and quantitative goals based upon chief executive officer's recommendations, except for the the evaluation of the chief executive officer, which the Compensation and Option Committee determines directly.

Financial Goals

As noted above, the annual bonus paid to each Named Executive Officer is based in part upon the achievement of two equally-weighted financial goals. The performance measures used for these financial goals are reviewed annually by the Compensation and Option Committee, in consultation with management, to assure that they align with what the Compensation and Option Committee and management believe are the most important drivers of both annual financial performance and long-term shareholder value. Under the Corporate Executive Incentive Plan (applicable to Mr. Burbach, Mr. Lehman and Ms. Lucchese), the financial targets for 2006 were based upon the Company's overall revenue and non-GAAP income before tax. For Mr. Nelson, the financial targets for 2006 were based upon revenue and non-GAAP income before tax for our Cardiovascular division. For Mr. Cohen, the financial targets for 2006 were based upon revenue and non-GAAP income before tax for our subsidiary, International

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Technidyne Corporation. The Compensation and Option Committee chose revenue and non-GAAP income before tax as the performance metrics under the Company's annual bonus plan, with equal weighting, as it believes that non-GAAP income before tax is an important indicator of the Company's current profitability and a priority to the Company's shareholders, but that as a growth Company, revenue is an important indicator of the Company's potential for increasing long-term shareholder value. Under each plan, non-GAAP income before tax means GAAP net income before taxes (for the Company, the Cardiovascular division or International Technidyne Corporation, as applicable) excluding, as applicable, amortization of intangible, in-process research & development, impairment of intangibles, certain litigation, restructuring and CEO transition expenses and certain other non-recurring costs, and also excluding share-based compensation expense under SFAS No. 123R, changes in the value of the make-whole provision of our convertible notes and special incentive awards.

The achievement of each of these goals for purposes of calculating the annual bonus for our Named Executive Officers is determined independently based on a formula that compares actual achievement to the performance target for the year. Achievement of the financial goals at the threshold level (which, for 2006, was 95% of the target level for the revenue goal and 90% to 95% of the target level for the non-GAAP income before tax goal, depending on the plan) would result in a payout percentage of 50%, and achievement at the target level would result in a payout percentage of 100% (with the payout percentage for achievement between the threshold and target determined by interpolation). For each percentage of performance above the target level, the payout percentage would be increased by 3%. The Compensation and Option Committee believes that incorporating this type of leverage and payment acceleration in the annual bonus formula encourages superior performance and fosters greater initiative, resourcefulness, teamwork and efficiency among our Named Executive Officers and other members of senior management.

For each of the past three years, including for 2006, the Compensation and Option Committee established targets for these two financial goals that would require an increase in corporate performance as compared to the immediately preceding year's actual results, thus presenting a significant challenge to the senior management team to continue improving our financial performance on a year-over-year basis to achieve the bonus targets. Over the past three years (from 2004 through 2006), we have achieved performance at or in excess of the corporate and cardiovascular division target levels for the revenue goal one time and the non-GAAP income before tax goal one time and we achieved less than the corporate and cardiovascular division threshold performance levels for the revenue goal two times (including one time in which we did exceed 90% of the goal) and the non-GAAP income before tax goal two times. During the same period, our ITC division did not in any of the years achieve performance at or in excess of the target level for the revenue goal or the non-GAAP income before tax goal, but did achieve between the minimum and the target level for the revenue goal three times and for the non-GAAP income before tax goal one time. Generally, the target levels for each of the performance criteria approved by the Compensation and Option Committee are set at a level consistent with our annual operating plan, which we believe provides a consistent (and aggressive) level of difficulty for achievement of the target level for each of the criteria from year to year.

We do not currently have a policy requiring a fixed course of action with respect to compensation adjustments following later restatements of performance targets. Under those circumstances, the Compensation and Option Committee would evaluate whether compensation adjustments were appropriate based upon the facts and circumstances surrounding the restatement.

Retention Bonuses

In connection with Mr. Grossman's announced resignation as our President and CEO in August 2005, the Compensation and Option Committee determined that it was necessary and advisable to enter into retention bonus arrangements with certain key executive officers to ensure that we had leadership continuity both during Mr. Grossman's transition and during and immediately following the recruitment and hiring of a new chief executive

officer. The retention risk for these executive officers was heightened due to the fact that at the time of Mr. Grossman's announcement of his resignation, the Company's chief financial officer (Ms. Lucchese's predecessor) had recently separated from the Company. Accordingly, the Company entered into employment agreements with Mr. Nelson and Mr. Cohen and a retention bonus agreement with Mr. Lehman in August 2005. Mr. Nelson's employment agreement provided that he would be paid a retention bonus equal to 75% of his base salary twelve months after the execution of his employment agreement and an additional retention bonus equal to 75% of his base

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salary six months after the hire date of the new chief executive officer, in each case provided he was still then employed by the Company. Mr. Cohen's employment agreement provided that he would be paid a retention bonus equal to 62.5% of his base salary twelve months after the execution of his employment agreement and an additional retention bonus equal to 62.5% of his base salary six months after the hire date of the new chief executive officer, in each case provided he was then still employed by the Company. Mr. Lehman's retention bonus agreement provided that he would be paid a retention bonus equal to 50% of his base salary to be paid on the later of (i) six months after the hire date of the new chief executive officer and (ii) twelve months after the execution of his retention bonus agreement, in each case provided he was then still employed by the Company. The periods of continued employment required to receive the retention bonuses were determined by the Compensation and Option Committee based upon the amount of time the Compensation and Option Committee believed it would take to identify and hire a new chief executive officer and allow for the full integration of the new chief executive officer into the Company. All of these retention bonuses were paid in full in 2006.

Long-Term Equity Incentive Compensation

Consistent with the principles outlined above, long-term incentives are designed to provide the Named Executive Officers with an equity stake in the Company so as to align the Named Executive Officers' interests with those of our shareholders and create significant incentives for executive retention. The Compensation and Option Committee intends that long-term equity incentive compensation awards, when taken together with the base salary and annual incentive compensation opportunities provided to the Named Executive Officers, would result in total direct compensation to the Named Executive Officers at the 75th percentile, assuming performance at the target level under the annual incentive compensation plan, as compared to executives in similar positions at companies in the primary peer group. In 2006, we made equity grants in the form of stock options and restricted stock to the Named Executive Officers. Stock options provide an opportunity for the Company to reward its Named Executive Officers if our share price increases and the Named Executive Officers remain employed by us during the period required for the options to vest. Awards of restricted stock align the interests of Named Executive Officers with the interests of shareholders through stock ownership, increase the reward to the Named Executive Officers when our stock price increases, and serve as a retention tool for the Named Executive Officers.

When allocating long-term incentive compensation opportunities, the Compensation and Option Committee first establishes a target dollar amount for the equity-based compensation awards to be made to each Named Executive Officer (determined as described above). The Compensation and Option Committee then allocates approximately 50% of that amount to stock options and approximately 50% to restricted stock. The Compensation and Option Committee believes this mix of stock options and restricted stock creates an effective tool for incentivizing and retaining those executives who are most responsible for influencing shareholder value by balancing variable compensation (stock options) and compensation with a guaranteed value at the time of grant (restricted stock). The Compensation and Option Committee then determines the number of shares subject to stock options to be granted to the Named Executive Officers based upon the value allocated to stock options using a Black-Scholes option pricing model. The number of shares of restricted stock to be awarded to each Named Executive Officer is then determined by dividing the number of shares subject to the executive's stock option award by 3, which we believe appropriately reflects the relative value that we and our Named Executive Officers place on restricted stock as compared to stock options.

Both the stock options and restricted stock granted in 2006 to our Named Executive Officers vest over time as described in more detail in the discussion following the Grants of Plan-Based Awards in Fiscal Year 2006 table below. Initially, the Compensation and Option Committee provided for cliff vesting of the restricted stock awards at the end of a specified time-based vesting period, with the potential for accelerated vesting upon the achievement of Company performance-based vesting criteria to be determined after the date of grant. However, in November 2006 the Compensation and Option Committee decided to amend the restricted stock awards to provide for annual time-based vesting after it determined that such a structure was more effective as a means to incentivize senior management, rather

than attempting to identify long-term, objectively determinable performance targets.

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Grant Timing Policy

The Compensation and Option Committee and senior management monitor our stock option and restricted stock grant policies to ensure that they comply with governing regulations and are consistent with good corporate practice. In each of 2006 and 2007, grants to executive officers were made at Compensation and Option Committee meetings held at the same time as the first quarter meetings of the Board of Directors (which meeting dates were set several months in advance), after results for the preceding fiscal year became available, enabling the Compensation and Option Committee to consider both the prior year's performance and expectations for the succeeding year in making grant decisions. However, the Compensation and Option Committee has the right to make grants at other times of the year when appropriate. Scheduling decisions are made without regard to anticipated earnings or other major announcements by the Company.

Deferred Compensation Plan

The Named Executive Officers may elect to defer compensation payable to them under our Deferred Compensation Plan. This plan is designed to allow for retirement savings above the limits imposed by the IRS for 401(k) plans on an income tax-deferred basis for members of senior management who choose to participate. Amounts deferred into the plan are held in accounts with values indexed to the performance of selected mutual funds or money market accounts. We do not match executive deferrals under the deferred compensation plan. We maintain this plan for the purpose of providing a competitive benefit and allowing Named Executive Officers an opportunity to defer income tax payments on their cash compensation.

Other Employee Benefit Plans

The Named Executive Officers are eligible for the same benefits available to our employees generally. These include participation in a tax-qualified 401(k) plan and group life, health, dental, vision, and disability insurance plans. Additionally, we pay the premiums on disability insurance for employees at the level of senior director or higher.

Perquisites

We generally do not provide our Named Executive Officers with significant perquisites and personal benefits. In connection with her initial employment, we agreed to provide Cynthia Lucchese with financial reimbursement related to her relocation to the San Francisco Bay Area. The Compensation and Option Committee believes that this benefit was reasonable and necessary for Ms. Lucchese's recruitment.

Severance Benefits

We have entered into agreements with our Named Executive Officers that provide for benefits upon termination of employment under certain circumstances, including in connection with a change of control of the Company. We provide these benefits as a means of remaining competitive, retaining executives, focusing executives on shareholder interests when considering strategic alternatives, and providing income protection in the event of involuntary loss of employment. Please refer to the discussion under Potential Payments upon Termination or Change of Control below for a more detailed discussion of these arrangements. Consistent with our long-standing severance policy for executive officers, these arrangements provide for standard severance benefits upon a termination of the Named Executive Officer's employment with the Company without cause, not in connection with a change of control, of one times base salary (two times for Mr. Burbach), plus an additional payment for COBRA continuation coverage for one month (12 months for Mr. Burbach). In the event of a change of control of the Company, and if the executive is terminated without cause or resigns for good reason, the Named Executive Officer will receive enhanced severance

benefits of two times base salary plus bonus (2.5 times for Mr. Burbach). Certain executive officers are also entitled to accelerated vesting of stock option awards in connection with a termination of employment without cause, to the extent such equity awards were granted prior to May 2007. Our Named Executive Officers are entitled to vesting acceleration of unvested stock options and restricted stock upon the occurrence of a change of control (i) immediately, to the extent such equity awards were granted prior to April 2007, and (ii) after a termination of their employment without cause or their resignation for good reason within 18 months of a change of

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control, for unvested equity awards granted subsequent to April 2007. Mr. Burbach's initial grant of restricted stock that is unvested vests 50% upon a change of control and the remaining 50% upon the earlier of the one year anniversary of the effective date of such change of control or the termination of his employment without cause or his resignation for good reason.

The Compensation and Option Committee has engaged its compensation consultant to provide information on typical industry practices (based on a review of the primary peer group and the secondary peer group) concerning employment, severance, and change of control agreements. Based on this review, the Compensation and Option Committee believes the Company's current arrangements with its Named Executive Officers are consistent with competitive practices. The Compensation and Option Committee intends to review these arrangements periodically.

STOCK OWNERSHIP GUIDELINES

We do not have stock ownership guidelines for our Named Executive Officers as we do not believe that it is customary for companies of our size in our industry to have such guidelines.

TAX CONSIDERATIONS

Section 162(m) of the Internal Revenue Code of 1986

Section 162(m) of the Code limits deductions for certain executive compensation in excess of \$1,000,000 in any fiscal year. Certain types of compensation are deductible only if performance criteria are specified in detail and payments are contingent on shareholder approval of the compensation arrangement. We attempt to structure our compensation arrangements to achieve deductibility under Section 162(m), unless the benefit of such deductibility is outweighed by the need for flexibility or the attainment of other corporate objectives. The Compensation and Option Committee will continue to monitor issues concerning the deductibility of executive compensation and will take appropriate action if and when it is warranted. Since corporate objectives may not always be consistent with the requirements for full deductibility, the Compensation and Option Committee is prepared, if it deems appropriate, to enter into compensation arrangements under which payments may not be deductible under Section 162(m). Thus, deductibility will not be the sole factor used by the Compensation and Option Committee in ascertaining appropriate levels or modes of compensation.

In 2006, all stock option grants qualified as performance-based compensation under Section 162(m) and thus will be fully deductible.

Section 280G of the Internal Revenue Code of 1986

Section 280G of the Code disallows a company's tax deduction for what are defined as excess parachute payments and Section 4999 of the Code imposes a 20% excise tax on any person who receives excess parachute payments. Our Named Executive Officers, as part of their severance arrangements, will be provided with tax gross-up payments in the event their payments become subject to this excise tax. The Compensation and Option Committee believes that tax gross-up protection is appropriate and necessary for executive retention and consistent with the current practices of our industry competitors. We take into account the potential for tax gross-up payments in structuring our compensation programs, but such considerations are not determinative.

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**REPORT OF THE COMPENSATION AND OPTION COMMITTEE
OF THE BOARD OF DIRECTORS²**

In accordance with its written charter adopted by the Board, the Compensation and Option Committee has oversight of the Company's overall compensation structure, policies and programs. In discharging its oversight responsibility, the Committee has retained an independent compensation consultant to advise the Committee regarding market and general compensation trends.

The Compensation and Option Committee has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K with management.

Based on the review and discussions with management referred to above, the Compensation and Option Committee recommended to the Board that the Compensation Discussion and Analysis be included in the 2006 Proxy Statement on Schedule 14A for filing with the Securities and Exchange Commission.

Submitted By:

The Compensation and Option Committee

Daniel M. Mulvena, Chairman

J. Donald Hill, M.D.

George W. Holbrook, Jr.

² The Compensation and Option Committee Report will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or under the Exchange Act, except to the extent that our Company specifically incorporates such report by reference, and such report will not otherwise be deemed to be soliciting material to be filed under such Acts.

Table of Contents**EXECUTIVE COMPENSATION**

The following table shows, for fiscal year 2006, compensation awarded or paid to, or earned by, Thoratec's CEO, CFO, and three most highly compensated executive officers other than the CEO and CFO (collectively referred to herein as the "Named Executive Officers") at December 30, 2006.

Summary Compensation Table

Name and Principal Position	Year	Salary (\$)(1)	Bonus (\$)(2)	Stock Awards (\$)(3)	Option Awards (\$)(3)	Non-Equity Incentive Plan	All Other	Total (\$)
						Compensation (\$)(1)	Compensation (\$)(5)	
Edward F. Burbach President and Chief Executive Officer(6)	2006	344,712		153,452	1,785,043	149,733	8,392	2,441,332
Keith Grossman Senior President and Chief Executive Officer(7)	2006	40,320		184,000(4)	255,729(4)		924,000	1,404,049
David V. Smith Executive Vice President and Chief Financial Officer(8)	2006	1,308			687			1,995
Gregory W. Nelson President, Cardiovascular Division	2006	305,000	457,500	35,885	214,814	119,560	9,340	1,142,009
Frederic Cohen President, International MediSyne Corporation	2006	290,000	362,500	35,885	200,983	98,577	11,506	999,451
Michael L. Lucchese Senior Vice President and Chief Financial Officer(9)	2006	265,000		380,935	345,620	91,425	117,912	1,200,892
David A. Lehman Senior Vice President and General Counsel	2006	235,000	117,500	25,123	156,984	73,438	8,922	616,967

(1) Includes amounts deferred pursuant to Section 401(k) of the Code and Deferred Compensation Plan.

(2) The payments listed in the "Bonus" column above reflect retention bonuses earned in 2006.

(3) The assumptions made in the valuation of such awards are set forth in the Notes to Consolidated Financial Statements in Thoratec's Annual Report on Form 10-K for the year ended December 30, 2006.

(4)

Includes amounts related to accelerated vesting of Mr. Grossman's stock and option awards upon termination of his employment with Thoratec on February 2, 2006.

- (5) The payments listed in the "All Other Compensation" column above reflect the value of 401(k) matching contributions, company payments for supplemental life insurance premiums and company payments for disability insurance premiums for each of the Named Executive Officers. For Mr. Grossman, the payments also include: reimbursement for health and dental insurance coverage (\$21,594), the Company's payment of premiums for life insurance coverage (\$30,525), income tax gross-up payments in respect to these welfare benefits (\$25,037), a lump-sum severance payment (\$742,000), a lump-sum payout in respect of his accrued vacation and holiday pay (\$52,080) and consulting fees earned following his termination of employment (\$44,775). For Ms. Lucchese, the payments also include: a relocation stipend (\$37,238), payments made in respect of temporary corporate housing (\$46,910) and an income tax gross-up payment in respect of the corporate housing benefit (\$26,102). All of the payments reflected in the "All Other Compensation" column are based upon the actual cost expended by Thoratec in connection with such amounts.
- (6) Mr. Burbach was appointed President and Chief Executive Officer of Thoratec on January 17, 2006.
- (7) Mr. Grossman's service as President and Chief Executive Officer of Thoratec ended on January 17, 2006, although his employment with Thoratec did not terminate until February 2, 2006.

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- (8) Mr. Smith was appointed Executive Vice President and Chief Financial Officer of Thoratec on December 29, 2006.
- (9) Ms. Lucchese's service as Senior Vice President and Chief Financial Officer of Thoratec terminated on December 29, 2006, although her employment with Thoratec did not terminate until March 9, 2007.

Employment Agreements

Gerhard F. Burbach. Gerhard F. Burbach and the Company entered into an employment agreement dated January 13, 2006, pursuant to which Mr. Burbach joined the Company effective January 17, 2006. In accordance with the terms of the employment agreement, Mr. Burbach entered into an at-will employment relationship with the Company providing for annual base salary of \$375,000, and a target bonus under our Corporate Executive Incentive Plan equal to 75% of his base salary. Mr. Burbach was granted a stock option to purchase 375,000 shares of Common Stock, vesting annually over a four year period. Mr. Burbach was also granted 50,000 shares of restricted stock, which will become vested as described below.

D. Keith Grossman. On August 16, 2005, we announced that D. Keith Grossman would resign as the Company's President and Chief Executive Officer effective upon the earlier of the date a replacement Chief Executive Officer was hired and December 31, 2006, which date was the expiration of Mr. Grossman's amended employment agreement. In connection with Mr. Grossman's resignation, we amended and restated, effective August 15, 2005, the employment agreement between the Company and Mr. Grossman dated December 6, 2001. Additionally, we entered into a consulting services agreement with Mr. Grossman dated August 15, 2005. The amended employment agreement provided that Mr. Grossman would remain employed by the Company for a transition period of up to three months following the appointment of the replacement CEO in order to help transition such individual. Payments made to Mr. Grossman under his amended employment agreement are described in more detail under the Potential Payments Upon Termination or Change of Control section of this Proxy Statement. Effective January 17, 2006, Mr. Burbach was hired as the President and Chief Executive Officer of the Company and Mr. Grossman resigned from such positions. We agreed with Mr. Grossman to end his transition period as of February 2, 2006. Pursuant to the consulting agreement with Mr. Grossman, he provided consulting services to the Company through October 2006 in exchange for a consulting fee of \$5,000 per month. Mr. Grossman will also receive from February 2, 2006, 18 months of paid COBRA premiums and 18 months of paid premiums on a life insurance policy.

David V. Smith. Mr. Smith and the Company entered into an offer letter agreement dated November 22, 2006, pursuant to which Mr. Smith joined the Company effective December 29, 2006. In accordance with the terms of the offer letter agreement, Mr. Smith entered into an at-will employment relationship with the Company providing for annual base salary of \$340,000. Pursuant to the employment agreement, Mr. Smith's target bonus for 2007 and 2008 under our Corporate Executive Incentive Plan will be equal to 75% of his base salary. Mr. Smith is entitled to receive stock options to purchase 100,000 shares of Common Stock, two-thirds of which were granted on the date Mr. Smith commenced employment with the Company and one-third of which were granted in conjunction with the Company's annual equity grant cycle in early 2007. Mr. Smith is also entitled to receive awards of restricted stock covering 40,000 shares of Common Stock, which awards were granted in conjunction with the Company's annual equity grant cycle in early 2007. These options and shares of restricted stock vest ratably over four years from their date of grant.

Jeffrey W. Nelson and Lawrence Cohen. On August 15, 2005, the Company entered into employment agreements, each with four year terms, with Jeffrey W. Nelson, President, Cardiovascular Division and Lawrence Cohen, President, International Technidyne Corporation. These agreements provided for retention bonuses as described more fully in the Compensation Discussion and Analysis Elements of Executive Compensation Annual Cash Incentive Compensation Retention Bonuses section of this Proxy Statement. These retention bonus payments were fully paid in

2006 and are reflected in the Bonus column in the table above.

The employment agreement with Mr. Nelson also provides that he will be entitled to an annual base salary of at least \$305,000 and a target annual incentive bonus under the Company's incentive compensation plan for executive officers equal to 70% of his base salary.

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The employment agreement with Mr. Cohen also provides that he will be entitled to an annual base salary of at least \$272,223 and a target annual incentive bonus under the Company's incentive compensation plan for executive officers equal to 60% of his base salary. As described above under the Compensation Discussion and Analysis- Elements of Executive Compensation, in 2006, Mr. Cohen's annual base salary was increased to \$290,000 and his target annual incentive bonus was increased to 70% of base salary.

Cynthia Lucchese. On December 1, 2006, we entered into an amendment to the offer letter between the Company and Cynthia Lucchese pursuant to which Ms. Lucchese agreed that she would resign as the Company's Chief Financial Officer effective upon December 31, 2006. In connection with Ms. Lucchese's resignation, we agreed that Ms. Lucchese would remain a part-time, non-executive employee until March 9, 2007 in order to help with the transition period for the Company's newly hired CFO. Prior to the amendment, Ms. Lucchese's offer letter provided that she was entitled to an annual base salary of \$260,000 and target bonus under our Corporate Executive Incentive Plan equal to 60% of her base salary. Under the amendment, Ms. Lucchese was entitled to a base salary during her part-time employment period at a rate of \$130,000 per year. Ms. Lucchese is not entitled to any other remuneration from the Company for her services as a part-time employee or in connection with her resignation.

David A. Lehman. On August 15, 2005, the Company entered into a retention bonus agreement, with David A. Lehman, Senior Vice President and General Counsel, as described more fully in the Compensation Discussion and Analysis- Elements of Executive Compensation- Annual Cash Incentive Compensation- Retention Bonuses section of this Proxy Statement. The retention bonus payment earned in 2006 is reflected in the Bonus column in the table above.

Salary and Bonus in Proportion to Total Compensation. The following table sets forth the percentage of total compensation earned by each Named Executive Officer (other than Mr. Grossman and Mr. Smith, due to their resignation and hire dates, respectively) in 2006 represented by salary and annual incentive compensation, excluding the impact of the special retention bonuses paid to certain of our Named Executive Officers:

Percentage of Total Compensation

	Salary	Annual Cash Incentive Compensation
Gerhard F. Burbach	14%	6%
Jeffrey W. Nelson	45%	17%
Lawrence Cohen	46%	15%
Cynthia L. Lucchese	22%	8%
David A. Lehman	47%	15%

Table of Contents**GRANTS OF PLAN-BASED AWARDS IN FISCAL YEAR 2006**

Name	Estimated Future Payouts Under Non-Equity Incentive Plan Awards			All Other Stock Awards: Number of Shares of Stock or Units (#)	All Other Option Awards: Number of Securities Underlying Options (#)	Exercise or Base Price of Option Awards (\$/Sh)	Grant Date Fair Value of Stock and Option Awards (\$)
	Grant Date	Threshold (\$)	Target (\$)				
Gerhard F. Burbach	1/17/2006				375,000	23.62	3,821,953
	5/12/2006			50,000			807,500
	N/A	281,250					
D. Keith Grossman	1/30/2006				1,000	24.97	7,843
David V. Smith	12/29/2006				66,667	17.58	511,027
Jeffrey W. Nelson	2/24/2006			8,335			169,534
	2/24/2006				25,000	20.34	219,414
	N/A	213,500					
Lawrence Cohen	2/24/2006			8,335			169,534
	2/24/2006				25,000	20.34	219,414
	5/15/2006				500	16.03	2,556
	N/A	203,000					
Cynthia L. Lucchese	2/24/2006			5,557			113,029
	2/24/2006				16,667	20.34	146,278
	5/12/2006			25,000			403,750
	N/A	159,000					
David A. Lehman	2/24/2006			5,835			118,684
	2/24/2006				17,500	20.34	153,590
	N/A	117,500					

The actual payouts under the non-equity incentive plan awards granted to the Named Executive Officers are made under the Corporate Executive Incentive Plan (for Messrs. Burbach and Lehman and Ms. Lucchese), the Cardiovascular Division Executive Incentive Plan (for Mr. Nelson) and the International Technidyne Corporation Executive Incentive Plan (for Mr. Cohen) and are determined as described above under Compensation Discussion and Analysis Elements of Executive Compensation Annual Cash Incentive Compensation.

The stock awards granted to the Named Executive Officers were granted under the 1997 Employee Stock Option Plan and initially provided for time-based vesting after 4 years (5 years for Mr. Burbach), with the potential for accelerated vesting upon the achievement of performance criteria that were to be established after the grant date. As described above under Compensation Discussion and Analysis- Elements of Executive Compensation Long-Term Equity Incentive Compensation, the awards were later amended to provide for time-based vesting ratably over 4 years (5 years for Mr. Burbach). For the Named Executive Officers other than Mr. Burbach, the amended stock awards will vest with respect to 1/4th of the shares subject to such stock award on each of the first, second, third and fourth anniversaries of the date of grant. For Mr. Burbach, the amended stock awards will vest with respect to 1/5th of the shares subject to such stock award on each of February 24, 2007 and January 17 of 2008, 2009, 2010 and 2011. The

stock options granted to the Named Executive Officers were granted under the 1997 Employee Stock Option Plan and vest over 4 years, with 1/4th of the shares subject to such option vesting on each anniversary of the date of grant. The exercise price of options granted under the 1997 Employee Stock Option Plan is equal to the closing price of the Company's common stock on the date of grant.

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Name	Option Awards				Stock Awards	
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable(1)	Option Exercise Price (\$)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested (\$)
Gerhard F. Burbach		375,000	23.62	1/17/2016	50,000(3)	807,500
D. Keith Grossman						
David V. Smith		66,667	17.58	12/29/2016		
Jeffrey W .Nelson	101,900		5.79	8/19/2012	8,335(4)	169,534
	18,000		8.78	2/25/2013		
	18,000		13.97	6/5/2013		
	70,000		12.45	4/14/2014		
		6,000	8.78	2/25/2013		
		6,000	13.97	6/5/2013		
		14,000(2)	12.45	4/14/2014		
		25,000	20.34	2/24/2016		
Lawrence Cohen	75,000		15.75	2/11/2012	8,335(4)	169,534
	500		16.03	5/15/2016		
	18,000		13.97	6/5/2013		
	70,000		12.45	4/14/2014		
	18,000		8.78	2/25/2013		
		6,000	8.78	2/25/2013		
		6,000	13.97	6/5/2013		
		25,000	20.34	2/24/2016		
		14,000(2)	12.45	4/14/2014		
Cynthia L. Lucchese	33,334		16.29	9/6/2015	5,557(4)	113,029
		66,666	16.29	9/6/2015	10,000(5)	161,500
		16,667	20.34	2/24/2016		
David A. Lehman	16,875		11.97	4/21/2013	5,835(4)	118,684
	49,221		12.45	4/14/2014		
		16,875	11.97	4/21/2013		
		9,844(2)	12.45	4/14/2014		
		17,500	20.34	2/24/2016		

(1)

Unless otherwise indicated, options granted to the Named Executive Officers were granted on the date 10 years prior to the expiration date and vest at a rate of 1/4th per year on each anniversary of the date of grant.

- (2) Option vests in six equal semi-annual installments over 3 years from the date of grant commencing 6 months after the date of grant.
- (3) Restricted stock award was granted on May 12, 2006 and vests at a rate of 1/5th per year on each of February 24, 2007, January 17, 2008, January 17, 2009, January 17, 2010, and January 17, 2011.
- (4) Restricted stock award was granted on March 31, 2006 and vests at a rate of 1/4th per year on each of the first, second, third and fourth anniversaries of February 24, 2006.
- (5) Restricted stock award was granted on May 12, 2006, the remaining 10,000 shares of which vested on March 6, 2007.

Table of Contents**OPTION EXERCISES AND STOCK VESTED IN FISCAL YEAR 2006**

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$)(1)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$)(2)
Gerhard F. Burbach				
D. Keith Grossman	358,000	1,808,829	125,000	2,405,000
David V. Smith				
Jeffrey W. Nelson				
Lawrence Cohen				
Cynthia L. Lucchese			15,000	176,850
David A. Lehman				

- (1) Equal to the difference between the market price of the underlying securities at exercise and the exercise price of the options.
- (2) Equal to the number of shares vested multiplied by the closing price of Thoratec common stock on the date of vesting.

NONQUALIFIED DEFERRED COMPENSATION FOR FISCAL YEAR 2006

Name	Executive Contributions in Last FY(1) (\$)	Registrant Contributions in Last FY (\$)	Aggregate Earnings in Last FY (\$)	Aggregate Withdrawals/ Distributions (\$)	Aggregate Balance at Last FYE (\$)
Gerhard F. Burbach					
D. Keith Grossman			212	43,496	
David V. Smith					
Jeffrey W. Nelson			14,833		112,329
Lawrence Cohen					
Cynthia L. Lucchese	44,213		4,383		48,596
David A. Lehman					

- (1) All executive contributions are reported as either salary or non-equity incentive plan compensation in the Summary Compensation Table above.

Executive officers may elect to defer up to 50% of their base salary and up to 100% of the non-equity incentive plan compensation payable to them under the Company's Deferred Compensation Plan. These deferred compensation payments are held in accounts with values indexed to the performance of selected mutual funds or money market accounts. Executive officers may elect to receive distributions from their account at a specified time prior to termination of employment or upon termination of employment with the Company. In addition, executive officers may elect a lump sum payment or annual installments over a period of up to ten years.

Potential Payments Upon Termination or Change of Control

The information below describes certain compensation that would be paid under existing plans and contractual arrangements to the Named Executive Officers in the event of a termination of such executive's employment with the Company and/or change of control of the Company. The amounts shown in the table below assume that such a termination of employment and/or change of control occurred on December 29, 2006, and thus includes amounts earned through such time and are estimates of the amounts which would be paid out to the executives upon their termination and/or a change of control (based upon the executive's compensation and service levels as of such date and the closing price of the Company's common stock on December 29, 2006 of \$17.58). The actual amounts to be paid out can only be determined at the time of a change of control and/or such executive's termination of

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employment with the Company. In addition to the benefits described below, upon any termination of employment, each of the Named Executive Officers would also be entitled to a distribution of the amount, if any, shown in the Nonqualified Deferred Compensation for Fiscal 2006 table above.

The Company is currently party to either an employment agreement or separation benefits agreement with each of the Named Executive Officers, other than Mr. Grossman, whose employment terminated on February 6, 2006, and Ms. Lucchese, whose employment terminated on March 9, 2007. The following is a description of the compensation payable to the Named Executive Officers (other than Mr. Grossman and Ms. Lucchese) in connection with a termination of employment and/or change of control under these agreements and a table summarizing the estimated payouts assuming that a termination of employment and/or change of control occurred on December 29, 2006. Pursuant to the terms of her amended offer letter with the Company, Ms. Lucchese would not have been entitled to any severance or other compensation in the event of a termination of her employment and/or a change of control on December 29, 2006.

Each of the employment and separation benefits agreements with the Named Executive Officers (other than Mr. Grossman and Ms. Lucchese) provide the following severance benefits in the event the executive's employment with the Company is terminated by the Company without cause at any time other than during the 18-month period following a change of control: (i) a lump sum cash payment equal to one times (two times for Mr. Burbach) the executive's then current annual base salary and (iii) a lump sum payment equal to the cost of one month (twelve months for Mr. Burbach) of any COBRA continuation coverage elected by the executive to the same extent the Company paid for such benefits prior to the executive's termination. In addition, the employment and separation benefits agreements with Messrs. Lehman, Nelson and Cohen also provide for full vesting acceleration with respect to all stock option awards held by the executive as of the date of termination (but only to the extent such awards were granted prior to May 2007) upon any termination without cause.

Each of the employment and separation benefits agreements (other than for Mr. Grossman and Ms. Lucchese) also provide that if within 18 months following a change of control, the executive's employment is terminated by the Company without cause or by the executive for good reason, the executive would be entitled to the following severance benefits: (i) a lump sum cash payment equal to two times (2.5 times for Mr. Burbach) the sum of the executive's then current annual base salary plus the greatest of the executive's actual or target bonus for the year prior to termination or the executive's target bonus for the year of termination, (ii) full vesting acceleration with respect to all stock-based awards held by the executive as of the date of termination and (iii) a lump sum payment equal to the cost of twelve months of any COBRA continuation coverage elected by the executive to the same extent the Company paid for such benefits prior to the executive's termination. These employment and separation benefits agreements also provide for immediate vesting upon a change of control of all stock-based awards that were granted prior to May 2007; provided, however, that with respect to restricted stock awards held by Mr. Burbach, this immediate acceleration will only apply to 50% of the then unvested portion of such awards with the remaining 50% becoming accelerated upon the earlier of his termination of employment without cause or for good reason or the first anniversary of the date of the change of control. These employment and separation benefits agreements also provide that each executive will be entitled to reimbursement for any excise taxes imposed under Sections 280G and 4999 of the Internal Revenue Code as well as a gross-up payment equal to any income and excise taxes payable as a result of the reimbursement for the excise taxes.

The employment and separation benefits agreements with the Named Executive Officers do not provide for any additional payments or benefits upon a termination of employment by the Company for any reason other than those described above.

For purposes of these employment and separation benefits agreements, the term cause generally means: (i) any act of personal dishonesty taken by the executive in connection with his or her responsibilities as an employee that is

intended to result in substantial personal enrichment of the executive, (ii) the executive's conviction of a felony which the Company reasonably believes has had or will have a material detrimental effect on the Company's reputation or business, or (iii) the executive's continued willful violations his or her obligations to the Company after demand for performance by the Company.

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For purposes of these employment and separation benefits agreements, the term "good reason" generally means: any material reduction in the executive's duties or salary or bonus opportunity or a requirement that the executive work at a facility more than 25 miles from the Company's current headquarters.

For purposes of these employment and separation benefits agreements, the term "change of control" generally means: certain acquisitions by any person or group of 50% or more of the voting power of the Company's voting securities, the consummation of a sale of all or substantially all of the Company's assets, the consummation of a merger with a third party unless the Company's shareholders hold at least 50% of the voting power of the voting securities of the resulting company, or any change over a two-year period in the composition of a majority of the Board, not including directors who are nominated or elected by a majority of the incumbent directors.

The receipt of benefits following termination under these employment and separation benefits agreements is contingent upon the executive executing and not revoking a general release in favor of the Company.

Potential Payments Upon Termination or Change of Control Table

The table below sets forth the estimated value of the potential payments to each of the Named Executive Officers (other than Messrs. Grossman and Smith and Ms. Lucchese), assuming the executive's employment had terminated on December 29, 2006, and that a change of control of the Company also occurred on that date.

Name/Benefit	Before Change of Control Termination Without Cause	After Change of Control Termination Without Cause or for Good Reason	Change of Control Only (no Termination)
Gerhard F. Burbach			
Termination payment (salary and/or bonus)	\$ 750,000	\$ 1,640,625	
Termination payment (COBRA)	\$ 14,597	\$ 14,597	
Vesting of stock options(1)			
Vesting of restricted stock(2)		\$ 879,000	\$ 439,500
Excise tax and gross-up payment(3)		\$ 922,246	
Jeffrey W. Nelson			
Termination payment (salary and/or bonus)	\$ 305,000	\$ 1,505,504	
Termination payment (COBRA)	\$ 404	\$ 4,843	
Vesting of stock options(1)	\$ 146,280	\$ 146,280	\$ 146,280
Vesting of restricted stock(2)		\$ 146,529	\$ 146,529
Excise tax and gross-up payment(3)			
Lawrence Cohen			
Termination payment (salary and/or bonus)	\$ 290,000	\$ 986,000	
Termination payment (COBRA)	\$ 908	\$ 10,893	
Vesting of stock options(1)	\$ 146,280	\$ 146,280	\$ 146,280
Vesting of restricted stock(2)		\$ 146,529	\$ 146,529
Excise tax and gross-up payment(3)			
David A. Lehman			
Termination payment (salary and/or bonus)	\$ 235,000	\$ 1,037,430	

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Termination payment (COBRA)	\$	1,263	\$	15,152		
Vesting of stock options(1)	\$	97,835	\$	97,835	\$	97,835
Vesting of restricted stock(2)			\$	102,579	\$	102,579
Excise tax and gross-up payment(3)						

(1) These amounts are calculated assuming that the market price per share of the Company's common stock on the date of termination of employment was equal to the closing price of the Company's common stock on

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December 29, 2006 (\$17.58) and are based upon the difference between \$17.58 and the exercise price of the options held by the Named Executive Officer.

- (2) These amounts are calculated assuming that the market price per share of the Company's common stock on the date of termination of employment was equal to the closing price of the Company's common stock on December 29, 2006 (\$17.58).
- (3) For purposes of computing the excise tax and gross-up payments, base amount calculations are based on taxable wages for the years 2002 through 2006. In addition, all of the Named Executive Officers were assumed to be subject to the maximum federal income and other payroll taxes, aggregating to a net combined effective income tax rate of 45%.

As of February 2, 2006, D. Keith Grossman resigned as the Company's President and Chief Executive Officer. In connection with his termination of employment and pursuant to his amended employment agreement with the Company, Mr. Grossman received a lump sum payment of \$742,000 representing 12 months' salary plus what would have been his target bonus for 2006. In addition, upon his termination all of the unvested stock-based awards held by Mr. Grossman vested in full. For 18 months following his termination of employment, Mr. Grossman is entitled to Company-paid life insurance and COBRA continuation coverage. Following his termination of employment, Mr. Grossman provided consulting services to the Company, which services ended in October 2006, and for which he received consulting fees totaling \$44,775.

CERTAIN TRANSACTIONS

Review and Approval of Transactions with Related Persons

The Company has adopted a written policy for approval of transactions between the Company and its directors, director nominees, executive officers, greater-than-5% beneficial owners, and their respective immediate family members, where the amount involved in the transaction exceeds or is expected to exceed \$100,000 in a single calendar year.

The policy provides that the Audit Committee reviews certain transactions subject to the policy and determines whether or not to approve or ratify those transactions. In doing so, the Committee takes into account, among other factors it deems appropriate, whether the transaction is on terms that are no less favorable to the Company than terms generally available to an unaffiliated third-party under the same or similar circumstances and the extent of the related person's interest in the transaction. In addition, the Board has delegated authority to the Chair of the Committee to pre-approve or ratify transactions where the aggregate amount involved is expected to be less than \$100,000. A summary of any new transactions pre-approved by the Chair is provided to the full Committee for its review in connection with each regularly scheduled Committee meeting.

The Committee has considered and adopted standing pre-approvals under the policy for limited transactions with related persons. Pre-approved transactions include:

business transactions with other companies at which a related person's only relationship is as an employee (other than an executive officer), director or less-than-10% beneficial owner if the amount of business falls below the thresholds in the NASDAQ's listing standards and the Company's director independence standards; and

contributions to non-profit organizations at which a related person's only relationship is as an employee (other than an executive officer) or director if the aggregate amount involved is less than \$100,000 or 2% of the

organization's consolidated gross annual revenues, whichever is lesser.

compensation of a named executive officer or director of the Company as required to be reported under Item 402 of Regulation S-K; or the executive officer is not an immediate family member of another executive officer or director of the Company, the related compensation would be reported under Item 402 if the executive officer was a named executive officer, and the Company's Compensation and Option Committee approved such compensation.

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any transaction where the Related Person's interest arises solely from the ownership of the Company's common stock and all holders of the Company's common stock received the same benefit on a *pro rata* basis (*e.g.* dividends).

At least annually, a summary of new transactions covered by the standing pre-approvals described above is provided to the Committee for its review.

Transactions with Related Persons

Since January 1, 2006, there has not been, nor is there currently planned, any transaction or series of similar transactions to which we were or are a party in which the amount involved exceeds \$120,000 and in which any director, nominee for director, executive officer or holder of more than 5% of our capital stock or any member of their immediate families had or will have a direct or indirect material interest other than the compensatory transactions described above.

Indemnification Agreements

Our By-Laws provide for the indemnification by us of our agents, including our directors and officers, to the maximum extent permitted under California law. Our Company also has indemnity agreements with our directors and certain of our officers. These indemnity agreements provide that the Company will indemnify an officer or director to the maximum extent permitted under California law and prohibit us from terminating our indemnification obligations as to the acts of any officer or director occurring before his or her termination. We believe the indemnity agreements assist us in attracting and retaining qualified individuals to serve as directors and officers of our Company. The indemnifications and limitations on liability required in our By-Laws and the indemnity agreements are subject to the limitations prescribed by California law.

AVAILABLE INFORMATION

A copy of Thoratec's Annual Report on Form 10-K for the fiscal year ended December 30, 2006 is being delivered with this Proxy Statement, but is also available, without charge, upon written request to: Investor Relations, Thoratec Corporation, 6035 Stoneridge Drive, Pleasanton, CA 94588. Additional information concerning Thoratec, including its reports and other submissions filed with the SEC, is available on our website, www.thoratec.com.

OTHER MATTERS

Deadline for Receipt of Shareholder Proposals

Pursuant to Rule 14a-8 of the Exchange Act, proposals of our shareholders that they intend to present at our 2008 annual meeting of shareholders must be received by us no later than December 22, 2007 in order to be included in the proxy statement and form of proxy relating to that meeting. Pursuant to the Company's Bylaws, shareholders who wish to submit a proposal or a nomination for director that is not to be included in the Company's proxy statement and form of proxy for the 2008 annual meeting must ensure that such proposal or nomination is received by the Company not later than February 18, 2008, nor earlier than January 19, 2008. The submission of a shareholder proposal does not guarantee that it will be included in the Company's proxy statement or form of proxy card. Shareholders are also advised to review the Company's By-Laws, which contain additional requirements with respect to advance notice of shareholder proposals and director nominations.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our directors and executive officers, and persons who own more than ten percent of a registered class of our equity securities to file reports of ownership and changes in ownership with the SEC. Such officers, directors and ten percent shareholders are also required by SEC rules to furnish us with copies of all Section 16(a) forms that they file.

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Based solely on our review of copies of such reports received by us, we believe that during the fiscal year ended December 30, 2006 all Section 16(a) filing requirements applicable to our officers, directors and ten percent shareholders were satisfied.

Other Matters

We know of no other matters to be submitted at the Annual Meeting. If any other matters properly come before the Annual Meeting, it is the intention of the persons named in the enclosed proxy to vote the shares they represent as the Board may recommend.

It is important that your stock be represented at the Annual Meeting, regardless of the number of shares that you hold. Therefore, you are urged to execute and return the accompanying proxy in the envelope that has been enclosed or vote by telephone or through the internet according to the instructions included with the proxy card.

For the Board of Directors

David A. Lehman
Senior Vice President, General Counsel and Secretary

Pleasanton, California
April 20, 2007

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**ATTN: GRACE OUYANG
6035 STONERIDGE DRIVE
PLEASANTON, CA 94588**

VOTE BY INTERNET www.proxvvote.com

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

ELECTRONIC DELIVERY OF FUTURE SHAREHOLDER COMMUNICATIONS

If you would like to reduce the costs incurred by Thoratec Corporation in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access shareholder communications electronically in future years.

VOTE BY PHONE 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Thoratec Corporation, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS: x THORA1 KEEP THIS PORTION FOR YOUR RECORDS

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED. DETACH AND RETURN THIS PORTION ONLY

**THORATEC CORPORATION
Vote on Directors**

1. Election of Directors:

Name of Nominee:

- | | |
|-------------------------|------------------------|
| (01) Gerhard F. Burbach | (05) D. Keith Grossman |
| (02) Howard E. Chase | (06) J. Donald Hill |
| (03) J. Daniel Cole | (07) Daniel M. Mulvena |
| (04) Neil F. Dimick | |

For All **Withhold All** **For All Except** To withhold authority to vote for any individual nominee(s), mark **For All Except** and write the number(s) of the nominee(s) on the line below.

o o o

THE DIRECTORS RECOMMEND A VOTE FOR EACH OF THE ABOVE NOMINEES

Vote on Proposal

For Against Abstain

2. Ratification of the appointment of Deloitte & Touche LLP as the Company's independent o o o
auditors for its fiscal year ending December 29, 2007:

**THE DIRECTORS AND THE AUDIT COMMITTEE RECOMMEND A VOTE FOR THE RATIFICATION
OF THE ABOVE
APPOINTMENT OF INDEPENDENT AUDITORS**

(This Proxy should be marked, dated and signed by the shareholder(s) **exactly** as his or her name appears on the stock records of the Company and returned promptly in the enclosed envelope. Persons signing in a fiduciary capacity should so indicate. If shares are held by joint tenants or as community property, both should sign.)

Signature [PLEASE SIGN WITHIN Date
BOX]

Signature (Joint Owners)

Date

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THORATEC CORPORATION
THIS PROXY SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS
2007 Annual Meeting of Shareholders to be Held on May 18, 2007

The undersigned, revoking all prior proxies, hereby appoint(s) Gerhard F. Burbach and David A. Lehman, and each of them, with full power of substitution and revocation, to represent the undersigned, with all powers which the undersigned would possess if personally present, and to vote as set forth on the reverse side all shares of common stock of THORATEC CORPORATION (the Company) which the undersigned would be entitled to vote if personally present at the 2007 Annual Meeting of Shareholders of the Company to be held at the Company's executive offices located at 6101 Stoneridge Drive, Pleasanton, California 94588, on Friday, May 18, 2007 at 9:00 a.m., Pacific Daylight Time, and at any postponements or adjournments of that meeting.

WHEN THIS PROXY IS PROPERLY EXECUTED, THE SHARES REPRESENTED HEREBY WILL BE VOTED AS SPECIFIED. IF NO SPECIFICATION IS MADE, THIS PROXY WILL BE VOTED FOR THE ELECTION OF ALL NOMINEES AS DIRECTORS IN RESPECT OF THE ELECTION PROPOSAL, FOR PROPOSAL 2 AND IN THE DISCRETION OF THE PROXIES WITH RESPECT TO ALL OTHER MATTERS WHICH MAY PROPERLY COME BEFORE THE MEETING AND ANY AND ALL ADJOURNMENTS THEREOF. THE UNDERSIGNED ACKNOWLEDGES RECEIPT OF THE ACCOMPANYING NOTICE OF ANNUAL MEETING AND PROXY STATEMENT.

WHETHER OR NOT YOU PLAN TO ATTEND THE MEETING IN PERSON, YOU ARE URGED TO SIGN AND PROMPTLY MAIL THIS PROXY IN THE RETURN ENVELOPE OR VOTE BY TELEPHONE OR THROUGH THE INTERNET ACCORDING TO THE INSTRUCTIONS INCLUDED WITH THE PROXY CARD SO THAT THE STOCK MAY BE REPRESENTED AT THE MEETING

SEE REVERSE SIDE

SEE REVERSE SIDE