

SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934 (Amendment No.)

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement Confidential, for Use of the Commission Only
(as permitted by Rule 14a-6(e)(2))
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material Pursuant to § 240.14a-12

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

1. Amount Previously Paid:

2. Form, Schedule or Registration Statement No.:

3. Filing Party:

4. Date Filed:



April 22, 2011

Dear Stockholder:

This letter accompanies the Notice of Annual Meeting of Stockholders and related Proxy Statement for the meeting to be held on Wednesday, May 25, 2011, at 10:30 a.m. local time at the L'Auberge Del Mar Hotel, 1540 Camino Del Mar, Del Mar, California 92014. We hope that it will be possible for you to attend in person.

At the meeting, the stockholders will be asked to elect the three directors named in our proxy statement to our Board of Directors, and ratify the selection of our independent registered public accounting firm.

Following the meeting, certain members of management in attendance will be pleased to answer your questions about Verenium.

The Notice of Annual Meeting of Stockholders and related Proxy Statement accompanying this letter describe the matters upon which stockholders will vote at the upcoming meeting, and we urge you to read these materials carefully.

YOUR VOTE IS IMPORTANT. WHETHER OR NOT YOU PLAN TO ATTEND THE MEETING, WE URGE YOU TO SIGN AND RETURN YOUR PROXY CARD, OR VOTE OVER THE PHONE OR THE INTERNET AS INSTRUCTED IN THESE MATERIALS, SO WE CAN BE SURE OF A QUORUM TO VOTE ON THESE PROPOSALS FOR STOCKHOLDER ACTION. If you attend the meeting, you may revoke your proxy and vote in person, if you so desire. Please note, however, that if your shares are held of record by a broker, bank or other nominee and you wish to vote at the meeting, you must obtain a proxy issued in your name from that record holder.

Sincerely,

James E. Levine
President, Chief Executive Officer

VERENIUM CORPORATION

4955 Directors Place, San Diego, CA 92121

NOTICE OF ANNUAL MEETING OF SHAREHOLDERS

To Be Held On May 25, 2011

Dear Shareholder:

You are cordially invited to attend the Annual Meeting of Shareholders of Verenium Corporation, a Delaware corporation (the "Company"). The meeting will be held on Wednesday, May 25, 2011 at 10:30 a.m. local time at L'Auberge Del Mar Hotel, 1540 Camino Del Mar, Del Mar, California 92014 for the following purposes:

1. To elect three nominees for director named herein to hold office until the 2014 Annual Meeting of Shareholders.
2. To ratify the selection by the Audit Committee of the Board of Directors of Ernst & Young LLP as the independent registered public accounting firm of the Company for its fiscal year ending December 31, 2011.
3. To conduct any other business properly brought before the meeting.

These items of business are more fully described in the Proxy Statement accompanying this Notice.

The Board of Directors of the Company has fixed April 15, 2011 as the record date for the determination of stockholders entitled to notice of, and to vote at, the annual meeting and any adjournment or postponement thereof. Only holders of record of shares of Verenium common stock at the close of business on the record date are entitled to notice of, and to vote at, the annual meeting. On the record date, the Company had 12,612,352 shares of common stock outstanding and entitled to vote.

Your vote is important. The affirmative vote of a plurality of the votes of the shares of Verenium's common stock having voting power present in person or represented by proxy at the annual meeting is required to elect directors pursuant to Proposal No. 1. The affirmative vote of the majority of shares of Verenium's common stock having voting power present in person or represented by proxy at the annual meeting is required for approval of Proposal No. 2.

Even if you plan to attend the annual meeting in person, the Company requests that you sign and return the enclosed proxy, or vote over the telephone or the Internet as instructed in these materials, as promptly as possible to ensure that your shares will be represented at the annual meeting if you are unable to attend. If you sign, date and mail your proxy card without indicating how you wish to vote, your proxy will be counted as a vote in favor of all nominees for director in Proposal No. 1 and as a vote in favor of Proposal No. 2. If you fail to return your proxy card and do not attend the annual meeting in person, the effect will be that your shares will not be counted for purposes of determining whether a quorum is present at the annual meeting. If you do attend the annual meeting and wish to vote in person, you may withdraw your proxy and vote in person. Please note, however, that if your shares are held of record by a broker, bank, or other nominee and you wish to vote at the meeting, you must obtain from the record holder a proxy issued in your name.

**Important Notice Regarding the Availability of Proxy Materials for the Shareholders' Meeting
to Be Held on Wednesday, May 25, 2011
at 10:30 a.m., local time at L'Auberge Del Mar Hotel, 1540 Camino Del Mar, Del Mar, California 92014.**

The proxy statement and annual report to shareholders are available at
<http://ir.verenium.com/>

By Order of the Board of Directors
Sincerely,



Alexander A. Fitzpatrick
*Senior Vice President, General Counsel and
Secretary*

San Diego, California
April 22, 2011

THE BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT EACH OF THE PROPOSALS OUTLINED ABOVE IS ADVISABLE TO, AND IN THE BEST INTERESTS OF, VERENIUM AND ITS STOCKHOLDERS AND HAS APPROVED EACH SUCH PROPOSAL. THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT STOCKHOLDERS VOTE "FOR" EACH PROPOSAL.

VERENIUM CORPORATION

4955 Directors Place, San Diego, CA 92121

**PROXY STATEMENT
FOR THE 2011 ANNUAL MEETING OF SHAREHOLDERS**

May 25, 2011

QUESTIONS AND ANSWERS ABOUT THESE PROXY MATERIALS AND VOTING

Why am I receiving these materials?

We have sent you these proxy materials because the Board of Directors of Verenum Corporation (sometimes referred to as the “Company” or “Verenum”) is soliciting your proxy to vote at the 2011 Annual Meeting of Shareholders, including at any adjournments or postponements of the meeting. You are invited to attend the annual meeting to vote on the proposals described in this proxy statement. However, you do not need to attend the meeting to vote your shares. Instead, you may simply complete, sign and return the enclosed proxy card.

We intend to mail these proxy materials on or about April 22, 2011 to all shareholders of record entitled to vote at the annual meeting.

How do I attend the annual meeting?

The meeting will be held on Wednesday, May 25, 2011 at 10:30 a.m. local time at L’Auberge Del Mar Hotel, 1540 Camino Del Mar, Del Mar, California 92014. Directions to the annual meeting may be found at www.laubergedelmar.com. Information on how to vote in person at the annual meeting is discussed below.

Who can vote at the annual meeting?

Only shareholders of record at the close of business on April 15, 2011 will be entitled to vote at the annual meeting. On this record date, there were 12,612,352 shares of common stock outstanding and entitled to vote.

Shareholder of Record: Shares Registered in Your Name

If on April 15, 2011 your shares were registered directly in your name with Verenum’s transfer agent, American Stock Transfer & Trust Company, LLC, then you are a shareholder of record. As a shareholder of record, you may vote in person at the meeting or vote by proxy. Whether or not you plan to attend the meeting, we urge you to fill out and return the enclosed proxy card to ensure your vote is counted.

Beneficial Owner: Shares Registered in the Name of a Broker or Bank

If on April 15, 2011 your shares were held, not in your name, but rather in an account at a brokerage firm, bank, dealer or other similar organization, then you are the beneficial owner of shares held in “street name” and these proxy materials are being forwarded to you by that organization. The organization holding your account is considered to be the shareholder of record for purposes of voting at the annual meeting. As a beneficial owner, you have the right to direct your broker or other agent regarding how to vote the shares in your account. You are also invited to attend the annual meeting. However, since you are not the shareholder of record, you may not vote your shares in person at the meeting unless you request and obtain a valid proxy from your broker or other agent.

What am I voting on?

There are two matters scheduled for a vote:

- Election of three nominees for director named in the proxy statement;

- Ratification of selection by the Audit Committee of the Board of Directors of Ernst & Young LLP as independent registered public accounting firm of the Company for its fiscal year ending December 31, 2011.

What if another matter is properly brought before the meeting?

The Board of Directors knows of no other matters that will be presented for consideration at the Annual Meeting. If any other matters are properly brought before the meeting, it is the intention of the persons named in the accompanying proxy to vote on those matters in accordance with their best judgment.

How do I vote?

You may either vote “For” all the nominees to the Board of Directors or you may “Withhold” your vote for any nominee you specify. For each of the other matters to be voted on, you may vote “For” or “Against” or abstain from voting.

The procedures for voting are fairly simple:

Shareholder of Record: Shares Registered in Your Name

If you are a stockholder of record, you may vote in person at the annual meeting or vote by proxy using a touch-tone telephone, the Internet or the enclosed proxy card. Whether or not you plan to attend the meeting, we urge you to vote by proxy to ensure your vote is counted. You may still attend the meeting and vote in person even if you have already voted by proxy.

- To vote in person, come to the annual meeting and we will give you a ballot when you arrive.
- To vote using the proxy card, simply complete, sign and date the enclosed proxy card and return it promptly in the envelope provided. If you return your signed proxy card to us before the annual meeting, we will vote your shares as you direct.
- To vote by touch-tone telephone, dial the toll-free number on your proxy card.
- To vote via the Internet, follow the instructions on your proxy card.

Beneficial Owner: Shares Registered in the Name of Broker or Bank

If you are a beneficial owner of shares registered in the name of your broker, bank, or other agent, you should have received a proxy card and voting instructions with these proxy materials from that organization rather than from Verenum. Simply complete and mail the proxy card to ensure that your vote is counted. Alternatively, you may vote by telephone or over the Internet as instructed by your broker or bank. To vote in person at the annual meeting, you must obtain a valid proxy from your broker, bank, or other agent. Follow the instructions from your broker or bank included with these proxy materials, or contact your broker or bank to request a proxy form.

Internet proxy voting may be provided to allow you to vote your shares online, with procedures designed to ensure the authenticity and correctness of your proxy vote instructions. However, please be aware that you must bear any costs associated with your internet access, such as usage charges from internet access providers and telephone companies.

How many votes do I have?

On each matter to be voted upon, you have one vote for each share of common stock you own as of April 15, 2011.

What if I return a proxy card or otherwise vote but do not make specific choices?

If you return a signed and dated proxy card without marking any voting selections, your shares will be voted “For” the election of all nominees for director and “For” each of the other proposals discussed in this proxy statement.

If any other matter is properly presented at the meeting, your proxy (one of the individuals named on your proxy card) will vote your shares using his best judgment.

What does it mean if I receive more than one set of proxy materials?

If you receive more than one set of proxy materials, your shares may be registered in more than one name or in different accounts. Please follow the voting instructions on the proxy cards in the proxy materials to ensure that all of your shares are voted.

Can I change my vote after submitting my proxy?

Yes. You can revoke your proxy at any time before the final vote at the meeting. If you are the record holder of your shares, you may revoke your proxy in any one of the following ways:

- You may submit another properly completed proxy card with a later date.
- You may send a timely written notice that you are revoking your proxy to Verenium’s Secretary at 4955 Directors Place, San Diego, CA 92121.
- You may attend the annual meeting and vote in person. Simply attending the meeting will not, by itself, revoke your proxy.

If your shares are held by your broker or bank as a nominee or agent, you should follow the instructions provided by your broker or bank.

When are stockholder proposals due for next year’s annual meeting?

To be considered for inclusion in next year’s proxy materials, your proposal must be submitted in writing by December 24, 2011, to Verenium’s Secretary at 4955 Directors Place, San Diego, CA 92121. Stockholders wishing to submit proposals or director nominations that are not to be included in the proxy statement for the Company’s 2012 annual meeting of stockholders must do so no later than February 25, 2012 and no earlier than January 26, 2012. Stockholders are also advised to review the Company’s Bylaws, which contain additional advance notice requirements, including requirements with respect to advance notice of stockholder proposals and director nominations.

How are votes counted?

Votes will be counted by the inspector of election appointed for the meeting, who will separately count, for the proposal to elect directors, votes “For,” “Withhold” and (with respect to proposals other than the election of directors) “Against” votes, abstentions and broker non-votes. For proposal No. 2 abstentions will be counted towards the vote total for each proposal, and will have the same effect as “Against” votes. For all proposals broker non-votes have no effect and will not be counted towards the vote total for any proposal.

What are “broker non-votes”?

Broker non-votes occur when a beneficial owner of shares held in “street name” does not give instructions to the broker or nominee holding the shares as to how to vote on matters deemed “non-routine.” Generally, if shares are held in street name, the beneficial owner of the shares is entitled to give voting instructions to the

broker or nominee holding the shares. If the beneficial owner does not provide voting instructions, the broker or nominee can still vote the shares with respect to matters that are considered to be “routine,” but not with respect to “non-routine” matters. Under the rules and interpretations of the New York Stock Exchange, “non-routine” matters are matters that may substantially affect the rights or privileges of shareholders, such as mergers, shareholder proposals, and elections of directors (even if not contested).

How many votes are needed to approve each proposal?

- For the election of directors, the three nominees receiving the most “For” votes from the holders of shares present in person or represented by proxy and entitled to vote on the election of directors will be elected. Only votes “For” or “Withheld” will affect the outcome.
- To be approved, Proposal No. 2, ratification of the selection of Ernst & Young LLP as the Company’s independent registered public accounting firm for fiscal December 31, 2011, must receive “For” votes from the holders of a majority of shares present in person or by proxy and entitled to vote. If you “Abstain” from voting, it will have the same effect as an “Against” vote. Broker non-votes will have no effect.

What is the quorum requirement?

A quorum of stockholders is necessary to hold a valid meeting. A quorum will be present if at least a majority of the outstanding shares on the record date are represented by stockholders present at the meeting or by proxy. On the record date, there were 12,612,352 shares outstanding and entitled to vote.

Your shares will be counted towards the quorum only if you submit a valid proxy vote or vote at the meeting. Abstentions and broker non-votes will be counted towards the quorum requirement. If there is no quorum, a majority of the votes present in person or by proxy at the meeting may adjourn the meeting to another date.

How can I find out the results of the voting at the annual meeting?

Preliminary voting results will be announced at the annual meeting. In addition, final voting results will be published in a current report on Form 8-K that we expect to file within four business days after the annual meeting. If final voting results are not available to us in time to file a Form 8-K within four business days after the meeting, we intend to file a Form 8-K to publish preliminary results and, within four business days after the final results are known to us, file an additional Form 8-K to publish the final results.

What proxy materials are available on the internet?

The proxy statement and annual report on Form 10-K to shareholders are available at <http://ir.verenium.com/> and on the SEC’s website at www.sec.gov.

PROPOSAL 1
ELECTION OF DIRECTORS

Verenium's Board of Directors is divided into three classes. Each class consists, as nearly as possible, of one-third of the total number of directors, and each class has a three-year term. Vacancies on the Board may be filled only by persons elected by a majority of the remaining directors. A director elected by the Board to fill a vacancy in a class, including vacancies created by an increase in the number of directors, shall serve for the remainder of the full term of that class and until the director's successor is duly elected and qualified.

The Board of Directors presently has eight members. There are three directors in the class whose term of office expires in 2011. Each of the nominees listed below is currently a director of the Company who was previously elected by the shareholders. If elected at the annual meeting, each of these nominees would serve until the 2014 annual meeting and until his or her successor has been duly elected and qualified, or, if sooner, until the director's death, resignation or removal. It is the Company's policy to invite, but not require, directors and nominees for director to attend the Annual Meeting. One of the directors attended the 2010 Annual Meeting of Stockholders.

Directors are elected by a plurality of the votes of the holders of shares present in person or represented by proxy and entitled to vote on the election of directors. The three nominees receiving the highest number of affirmative votes will be elected. Shares represented by executed proxies will be voted, if authority to do so is not withheld, for the election of the three nominees named below. If any nominee becomes unavailable for election as a result of an unexpected occurrence, shares that would have been voted for that nominee will instead will be voted for the election of a substitute nominee proposed by Verenium. Each person nominated for election has agreed to serve if elected. The Company's management has no reason to believe that any nominee will be unable to serve.

The Governance and Nominating Committee of the Board of Directors seeks to assemble a Board that, as a whole, possesses the appropriate balance of professional and industry knowledge, financial expertise and high-level management experience necessary to oversee and direct the Company's business. To that end, the committee has identified and evaluated nominees in the broader context of the Board's overall composition, with the goal of recruiting members who complement and strengthen the skills of other members and who also exhibit integrity, collegiality, sound business judgment and other qualities that the committee views as critical to effective functioning of the board. The brief biographies below include information, as of the date of this proxy statement, regarding the specific and particular experience, qualifications, attributes or skills of each nominee that led the committee to believe that that nominee should continue to serve on the Board. However, each of the members of the committee may have a variety of reasons why he or she believes a particular person would be an appropriate nominee for the Board, and these views may differ from the views of other members.

The following is a brief biography of each nominee and each director whose term will continue after the annual meeting.

NOMINEES FOR ELECTION FOR A THREE-YEAR TERM EXPIRING AT THE 2014 ANNUAL MEETING

Mr. Peter Johnson, 65, has been a director of Verenium since 1999. Mr. Johnson was a founder of Agouron Pharmaceuticals, Inc. and served as its President and Chief Executive Officer from its inception in 1984 until 2000. Mr. Johnson currently serves as a director of a nonprofit organization. Mr. Johnson received a B.A. and an M.A. from the University of California. Verenium's Board of Directors has concluded that Mr. Johnson should serve as a director of Verenium based upon his long and successful career as an entrepreneur and top executive in the biotechnology field, as well as his tenure since 1999 as a member of the Board of the Company.

Ms. Cheryl A. Wenzinger, 62, has been a director of Verenium since 2004 and serves as the chair of Verenium's audit committee and as the audit committee's financial expert. In her most recent position as audit

partner at Deloitte & Touche from 1984 to 2000, Ms. Wenzinger served many private and public companies, with a focus on health care providers and insurers, manufacturing, and agribusiness. She currently serves on the Board of Directors of Banner Health, where she chairs the audit committee, and on the Board of Trustees for Delta Dental Plan of Colorado, where she serves on the audit committee as the financial expert. Ms. Wenzinger received a B.S. in Accounting from the University of Northern Colorado and is a Certified Public Accountant. Verenium's Board of Directors has concluded that Ms. Wenzinger should serve as a director of Verenium based upon her extensive prior experience in a senior position at Deloitte & Touche and as director or trustee and audit committee member or chair of other leading companies, as well as her tenure since 2004 as a member of the Company's board and audit committee, and as chair of the audit committee since 2005.

Mr. Michael Zak, 57, has been a director of Verenium since 2007, and prior to Verenium's merger with Celunol, was a director of Celunol since 2004. Since 1991, Mr. Zak has been with Charles River Ventures, a venture capital management company. From 1986 to 1991, he served as co-founder and Vice President of Concord Communications, a start-up network monitoring and analysis software company. Mr. Zak was previously employed by Motorola, Inc. and McKinsey & Company, Inc., and served as a communications and signals intelligence officer in the United States Marine Corps. Mr. Zak holds a B.S. degree in engineering from Cornell University and an M.B.A. from the Harvard Business School. Verenium's Board of Directors has concluded that Mr. Zak should serve as a director of Verenium based upon his long and successful career as entrepreneur, investor and executive and his prior experience in roles of increasing responsibility at several leading technology companies.

THE BOARD OF DIRECTORS RECOMMENDS

A VOTE IN FAVOR OF EACH NAMED NOMINEE.

DIRECTORS CONTINUING IN OFFICE UNTIL THE 2012 ANNUAL MEETING

Dr. James H. Cavanaugh, 74, has been a director of Verenium since 1992 and Verenium's Chairman since 1998. Dr. Cavanaugh has been a Managing Director of HealthCare Ventures LLC, a venture capital management company since 1988. Dr. Cavanaugh was formerly president of SmithKline & French Laboratories U.S., Inc., the pharmaceutical division of SmithKline Beckman Corporation. Previously, he was President of Allergan International, a specialty eye care company. Prior to his industry experience, Dr. Cavanaugh was Deputy Assistant to the President for Domestic Affairs and Deputy Chief of the White House staff. Dr. Cavanaugh holds a Doctorate and a Master's degree from the University of Iowa and a Bachelor of Science degree from Fairleigh Dickinson University. In addition to serving on the Board of Directors of several privately held health care and biotechnology companies, he was non-executive chairman of Shire Pharmaceuticals Group plc from 1999 to 2008. He served on the Board of MedImmune, Inc. from 1990 until it was acquired by AstraZeneca in 2007, and was Chairman of Vicuron Pharmaceuticals, Inc. from its inception until it was acquired by Pfizer in 2005. Dr. Cavanaugh currently serves on the Boards of Cardiokine, Inc. (Chairman), PharmAthene, Inc., Sensors for Medicine and Science, Inc., and SkinMedica, Inc. Verenium's Board of Directors has concluded that Dr. Cavanaugh should serve as a director of Verenium based upon his experience in government and as a top executive and board member of leading biotechnology companies, as well as his tenure since 1992 as a member of the Board, and Chairman since 1998, of the Company.

Mr. Joshua Ruch, 61, has served as a director of Verenium since 2007, and prior to Verenium's merger with Celunol, was a director of Celunol since December 2004. Mr. Ruch is the Chairman and Chief Executive Officer of Rho Capital Partners, Inc., an investment and venture capital management company, which he co-founded in 1981. Prior to founding Rho, Mr. Ruch was employed in investment banking at Salomon Brothers. Mr. Ruch received a B.S. degree in electrical engineering from the Israel Institute of Technology (Technion) and an M.B.A. from the Harvard Business School. Mr. Ruch is also a director of GenVec, Inc. (NASDAQ-GM: GNVC) and of a number of private companies. Verenium's Board of Directors has concluded that Mr. Ruch should serve as a director of Verenium based upon his long and successful career as an investor and board member of numerous leading energy and biotechnology companies.

DIRECTORS CONTINUING IN OFFICE UNTIL THE 2013 ANNUAL MEETING

Dr. Fernand Kaufmann, 68, has been a director of Verenium since 2004. Dr. Kaufmann retired from The Dow Chemical Company, a public chemical manufacturing company, in 2001. During his more than 30-year career at Dow, Dr. Kaufmann served in a number of senior executive capacities, including Group Vice-President for New Businesses and as a member of Dow's management executive committee. Dr. Kaufmann currently serves as Chief Executive Officer and chairman of the board of HPL S.A., a Swiss technology start-up company in the field of novel lithium-ion battery technology. Dr. Kaufmann received a Ph.D. in polymer chemistry from the University of Strasbourg in France. He also serves as an advisor to Emerald Technology Ventures, a Swiss venture capital fund focused on clean energy and other technology. Verenium's Board of Directors has concluded that Dr. Kaufmann should serve as a director of Verenium based upon his extensive experience and record of achievement as both an executive and director of leading public and private companies in the chemical, energy and biotechnology fields, as well as his tenure since 2004 as a member of the board, and of the audit committee since 2005, of the Company.

Mr. James (Jamie) E. Levine, 40, became President and Chief Executive Officer and a Director in April 2011. Mr. Levine joined Verenium in April 2009 as Executive Vice President and Chief Financial Officer. Prior to joining Verenium, Mr. Levine held various positions with the global investment banking and securities firm, Goldman Sachs & Co., where he most recently served as a Managing Director in the Power and Utilities Group in New York. Before that he served as a Managing Director in the Goldman Sachs Energy Group in London which included responsibility for covering the integrated oil and gas and the refining and marketing sectors. In both of these positions Mr. Levine advised both corporate clients and private equity firms on valuing, acquiring and financing commodity-exposed businesses. Prior to Goldman Sachs, Mr. Levine held positions with Lehman Brothers, Inc. in New York, and Industrial Economics, Inc. in Cambridge, Massachusetts. Mr. Levine received an M.B.A. degree with a concentration in Finance from the Wharton School of the University of Pennsylvania and a B.A. in Economics from Brandeis University in Waltham, Massachusetts.

Mr. John F. Dee, 53, has been a director of Verenium since May 2008. Mr. Dee has been President and Chief Executive Officer of Link Medicine, a privately held biotechnology company advancing novel approaches for the treatment of neurodegenerative diseases, since May 2009. Prior to that, he served as President and Chief Executive Officer of Hypnion, Inc., a privately-held neurosciences drug discovery company, from July 2000 through its acquisition by Eli Lilly and Company in April 2007. Prior to Hypnion, Mr. Dee spent several years in senior executive roles at biotechnology companies, and as a senior consultant at McKinsey & Co., Inc., a management consulting firm, where he led teams of senior executives in the development and implementation of new strategic directives and performance improvements. Previously, Mr. Dee was the Chairman of the Board for NeuroPhase Inc., a neuroscience company focused on neurodegenerative disorders, and before that served as Chairman of the Board for BioProcessors Corporation, a privately-held company focused on advancements in bioprocessing for the life sciences industry. Mr. Dee holds B.A. and M.S. degrees in Engineering from Stanford University and an M.B.A. from Harvard University. Verenium's Board of Directors has concluded that Mr. Dee should serve as a director of Verenium based upon his extensive prior experience and record of achievement in leadership roles as executive and director of several leading biotechnology companies.

DIRECTOR RESIGNING IN 2011

Mr. Simon Rich, 66, resigned as a director of Verenium effective March 31, 2011. Mr. Rich had been a director of Verenium since 2008. Mr. Rich is CEO of Fuqua Rich Weeks, a private equity partnership focused in the energy sector. He spent more than 15 years with the Louis Dreyfus Group where he held various positions, beginning with Executive Vice President of Louis Dreyfus Energy; Chairman, Chief Executive Officer of Louis Dreyfus Natural Gas; and Chief Operating Officer and Managing Director of Duke-Louis Dreyfus, a joint venture between Duke Energy and Louis Dreyfus Group. He then went on to become President of Louis Dreyfus Holding Company. His current affiliations include Chairman of the Environmental Defense Fund of North Carolina and Chairman for the Center for Environmental Farming Systems. Mr. Rich is a graduate of Duke University.

Information Regarding the Verenium Board of Directors and Corporate Governance

Independence of the Board of Directors

As required under the listing standards of the NASDAQ Stock Market, a majority of the members of a listed company's Board of Directors must qualify as "independent," as affirmatively determined by the Board of Directors. After review of all relevant transactions or relationships between each director, or any of his or her family members, and Verenium, its senior management and its independent registered public accounting firm, the Verenium Board of directors affirmatively has determined that all of Verenium's directors are independent directors within the meaning of the applicable NASDAQ Stock Market listing standards, except for Mr. Levine, who is Verenium's President and Chief Executive Officer.

Board Leadership Structure

The Board of Directors of the Company has an independent chair, Dr. Cavanaugh, who has authority, among other things, to call and preside over board meetings, including meetings of the independent directors, to set meeting agendas and to determine materials to be distributed to the board. Accordingly, the Chairman has substantial ability to shape the work of the board. The Company believes that separation of the positions of Chairman and Chief Executive Officer reinforces the independence of the board in its oversight of the business and affairs of the Company. In addition, the Company believes that having an independent Chairman creates an environment that is more conducive to objective evaluation and oversight of management's performance, increasing management accountability and improving the ability of the board to monitor whether management's actions are in the best interests of the Company and its stockholders. As a result, the Company believes that having an independent Chairman can enhance the effectiveness of the Board as a whole.

Role of the Board in Risk Oversight

One of the board's key functions is informed oversight of the Company's risk management process. The board does not have a standing risk management committee, but rather administers this oversight function directly through the board as a whole, as well as through various board standing committees that address risks inherent in their respective areas of oversight. In particular, the Company's Board of Directors is responsible for monitoring and assessing strategic risk exposure, including a determination of the nature and level of risk appropriate for the Company. Our audit committee has the responsibility to consider and discuss our major financial risk exposures and the steps our management has taken to monitor and control these exposures, including guidelines and policies to govern the process by which risk assessment and management is undertaken. The audit committee also monitors compliance with financial laws and regulations, in addition to oversight of the performance of our internal audit function. Our governance and nominating committee monitors the effectiveness of our corporate governance guidelines, including whether they are successful in preventing illegal or improper liability-creating conduct. Our compensation committee assesses and monitors whether any of our compensation policies and programs has the potential to encourage excessive risk-taking. Typically, the entire Board of Directors meets with Company executive management, and the applicable board committees meet at least annually with the employees responsible for risk management in the committees' respective areas of oversight. Both the board as a whole and the various standing committees receive periodic reports from executive management, as well as incidental reports as matters may arise. It is the responsibility of the committee chairs to report findings regarding material risk exposures to the board as quickly as possible. The board coordinates with management with regard to the determination and implementation of responses to any problematic risk management issues.

Meetings of the Board of Directors

The Verenium Board of Directors met twenty five times during the last fiscal year. Each board member attended 75% or more of the aggregate of the meetings of the board and of the committees on which he or she served, held during the period for which he or she was a director or committee member.

As required under applicable NASDAQ Stock Market listing standards, in fiscal 2010, Verenium’s Board of Directors met six times in executive session.

Information Regarding Committees of Verenium’s Board of Directors

Verenium’s Board of Directors has four committees: an audit committee, a compensation committee, governance and nominating committee, and a finance committee. The following table provides membership and meeting information for fiscal 2010 for each of the board committees:

<u>Name</u>	<u>Audit</u>	<u>Compensation</u>	<u>Governance and Nominating</u>	<u>Finance</u>
Dr. James H. Cavanaugh		X	X	
Mr. John F. Dee				X
Mr. Peter Johnson		X*	X	
Dr. Fernand Kaufmann	X	X		
Mr. Simon Rich **				
Mr. James E. Levine				
Mr. Joshua Ruch		X		X
Ms. Cheryl A. Wenzinger	X*			
Mr. Michael Zak	X			X*
Total meetings in fiscal 2010	8	3	1	2

* Committee Chairperson

** Simon Rich resigned from the Board effective March 31, 2011

Below is a description of each committee referred to above. The Verenium Board of Directors has determined that each member of each of these committees meets the applicable rules and regulations regarding “independence”, as applicable to board and committee memberships and that each member is free of any relationship that would interfere with his or her individual exercise of independent judgment with regard to Verenium.

Audit Committee

The audit committee’s primary responsibility is to monitor and evaluate management’s financial reporting process and the accounting policies on which it is based, together with the independent registered public accounting firm’s review thereof, to assure that (1) the outcome reflects Verenium’s financial condition and the financial effects of Verenium’s activities in a full, fair, accurate, timely, and understandable manner and (2) that the systems of internal and disclosure controls are effective. In carrying out this responsibility, the audit committee meets with Verenium’s independent registered public accounting firm on a regular basis to discuss the quarterly financial statements and to review the results of the annual audit and discuss the annual financial statements; appoints, oversees the independence of, and evaluates the performance of the independent registered public accounting firm; and receives and considers the comments of the independent registered public accounting firm as to controls, adequacy of staff and management performance, and procedures in connection with audit and financial controls. The audit committee is composed of three directors, Ms. Wenzinger, Dr. Kaufmann, and Mr. Zak, with Ms. Wenzinger serving as the chair of the committee.

Verenium’s Board of Directors annually reviews the NASDAQ Stock Market listing standards for audit committee membership and has determined that all members of the audit committee meet all NASDAQ Stock Market listing standards for audit committee membership, and are independent as currently defined in Rule 5605(c)(2)(A)(i) and (ii) of the NASDAQ Stock Market listing standards. The Board of Directors has also determined that Ms. Wenzinger qualifies as an “audit committee financial expert,” as defined in applicable Securities and Exchange Commission rules. Verenium’s Board of Directors made a qualitative assessment of Ms. Wenzinger’s level of knowledge and experience based on a number of factors, including her formal education, professional certification, and experience as an audit partner of a public accounting firm.

Compensation Committee

Verenium's compensation committee reviews and approves salaries and incentive compensation to officers and employees, awards stock options to employees and consultants under Verenium's stock option plans, and otherwise determines compensation levels and performs such other functions regarding compensation as the Board of Directors may delegate. The compensation committee is composed currently of four directors: Messrs. Johnson and Ruch, and Drs. Cavanaugh and Kaufmann, with Mr. Johnson serving as the chair of the committee. All members of the compensation committee are independent, as independence is currently defined in Rule 5605(a)(2) of the NASDAQ Stock Market listing standards.

The specific determinations of the compensation committee with respect to executive compensation for 2010 are described in greater detail in the section entitled "Compensation Discussion and Analysis."

Compensation Committee Interlocks and Insider Participation

As noted above, the compensation committee consists of four directors: Messrs. Johnson and Ruch and Drs. Cavanaugh and Kaufmann. None of the members of Verenium's compensation committee is or has been an employee or officer of Verenium. None of Verenium's executive officers serves as a member of the Board of Directors or compensation committee of any other entity that has one or more executive officers serving on Verenium's Board of Directors or compensation committee.

Governance and Nominating Committee

The governance and nominating committee (1) evaluates Verenium's corporate governance functions on behalf of the Board of Directors, including procedures for compliance with applicable legal, ethical and regulatory requirements that affect corporate governance, (2) makes recommendations to the Board of Directors regarding governance issues, (3) identifies, reviews, and evaluates candidates to serve as directors of Verenium, (4) serves as a focal point for communication between such candidates, the Board of Directors and Verenium's management, and (5) recommends such candidates to the Board of Directors. The governance and nominating committee's primary responsibilities include assessment of the Board of Directors, conflicts of interest assessment, corporate governance guidelines, procedures for information dissemination, and director nominations, Board of Directors committee nominations, and recommendations regarding director changes of position. The governance and nominating committee is composed currently of two directors: Mr. Johnson and Dr. Cavanaugh. All members of the governance and nominating committee are independent, as independence is currently defined in Rule 5605(a)(2) of the NASDAQ Stock Market listing standards.

The governance and nominating committee believes that candidates for director should possess certain minimum qualifications, including high personal integrity and ethics and the ability to understand basic financial statements. The governance and nominating committee also considers factors such as relevant expertise upon which to be able to offer advice and guidance to management, sufficient time to devote to the affairs of Verenium, demonstrated excellence in his or her field, experience in the markets Verenium serves, the ability to exercise sound business judgment, and the ability to bring a diversity of views and experiences to the deliberations and decision-making processes of the board. However, the governance and nominating committee retains the right to modify these factors from time to time. Candidates for director are reviewed in the context of the current composition of the Board of Directors, the operating requirements of Verenium, and the long-term interests of stockholders. In conducting this assessment, the governance and nominating committee considers the current needs of the Board of Directors and Verenium, and seeks to maintain a balance of knowledge, experience and capabilities, and to avoid or effectively manage potential conflicts of interest. In the case of new director candidates, the governance and nominating committee also determines whether a particular candidate must be independent for NASDAQ Stock Market purposes, which determination is based upon applicable NASDAQ Stock Market listing standards and applicable Securities and Exchange Commission rules and regulations. In the case of incumbent directors whose terms of office are set to expire, the governance and nominating committee

reviews such directors' overall service to Verenium during their term, including the number of meetings attended, level of participation, quality of performance, and any other relationships and transactions that might impair such directors' independence.

At this time, the governance and nominating committee does not consider director candidates recommended by stockholders. The governance and nominating committee believes that it is in the best position to identify, review, evaluate and select qualified director candidates based upon its comprehensive criteria for Board of Directors membership. The governance and nominating committee uses its network of contacts to compile a list of potential director candidates, but it may also engage, if it deems appropriate, a professional search firm. The governance and nominating committee conducts any appropriate and necessary inquiries into the backgrounds and qualifications of possible candidates after considering the function and needs of the board.

Finance Committee

The finance committee assists the Board of Directors in overseeing and evaluating matters related to short and long-term financial planning, strategic financing options and capital structure, and, as necessary and appropriate, advises the Board of Directors on the engagement of outside financial advisors, investment banks, or other experts on finance-related matters. The finance committee is comprised of three directors, Messrs. Zak, Dee and Ruch, with Mr. Zak serving as the chair of the committee. All members of the finance committee are independent, as independence is currently defined in Rule 5605(a)(2) of the NASDAQ Stock Market listing standards.

Stockholder Communications with Verenium's Board of Directors

Stockholders and other parties interested in communicating directly with the non-management directors of Verenium as a group may do so by writing to the Secretary of Verenium Corporation, 4955 Directors Place, San Diego, CA 92121. Any communication must state the number of shares owned by the stockholder making the communication. Effective September 21, 2004, the governance and nominating committee of Verenium's Board of Directors has approved a process for handling letters received by Verenium and addressed to non-management members of Verenium's Board of Directors. Under that process, the Secretary of Verenium reviews all such correspondence and regularly forwards to Verenium's Board of Directors a summary of all such correspondence and copies of all correspondence that, in the opinion of the Secretary, deals with the functions of Verenium's Board of Directors or committees thereof or that the Secretary otherwise determines requires their attention. If the Secretary determines that the communication is unduly hostile, threatening, or similarly inappropriate, the Secretary shall discard the communication. Directors may at any time review a log of all correspondence received by Verenium that is addressed to members of the Board of Directors and request copies of any such correspondence. Concerns relating to accounting, internal controls, or auditing matters are immediately brought to the attention of Verenium's legal and accounting departments and handled in accordance with procedures established by the audit committee with respect to such matters.

Code of Ethics

Verenium has adopted the Verenium Corporation Code of Business Conduct and Ethics, or Code of Conduct, that applies to all officers, directors and employees. The Code of Conduct is available on Verenium's website at <http://ir.verenium.com/>. If Verenium makes any substantive amendments to the Code of Conduct or grants any waiver from its provisions to any executive officer or director, Verenium will promptly disclose the nature of the amendment or waiver on its website, and in accordance with Securities and Exchange Commission rules and regulations, as applicable.

Non-Employee Director Compensation

The following table shows for the fiscal year ended December 31, 2010 certain information with respect to the compensation of all non-employee directors of Verenium:

DIRECTOR COMPENSATION FOR FISCAL 2010

Name	Fees Earned or Paid in Cash (\$)	Stock Awards (\$)	Option Awards (\$)(1)	Non-Equity Incentive Plan Compensation (\$)	Change in Pension Value and Nonqualified Deferred Compensation Earnings	All Other Compensation (\$)	Total (\$)
Dr. James H. Cavanaugh, Chairman of the Board, Verenium Corporation President, Healthcare Ventures LLC	\$60,500	—	\$7,756(2)	—	—	—	\$68,256
John Dee, President and Chief Executive Officer of Link Medicine Corporation, Inc.	\$61,500	—	\$5,541(3)	—	—	—	\$67,041
Peter Johnson, Former CEO of Agouron Pharmaceuticals, Inc.	\$66,500	—	\$5,541(4)	—	—	—	\$72,041
Dr. Fernand Kaufmann, Former Senior Executive, The Dow Chemical Corporation	\$69,000	—	\$5,541(5)	—	—	—	\$74,541
Simon Rich*, Nicholas School of the Environment and Earth Sciences at Duke University	\$58,000	—	\$5,541(6)	—	—	—	\$63,541
Joshua Ruch, Chairman and Chief Executive Officer of Rho Capital Partners, Inc.	\$59,000	—	\$5,541(7)	—	—	—	\$64,541
Cheryl A. Wenzinger, Retired Audit Partner, Deloitte & Touche LLP	\$81,500	—	\$5,541(8)	—	—	—	\$87,041
Michael Zak, Partner, Charles River Ventures	\$71,500	—	\$5,541(9)	—	—	—	\$77,041

* Simon Rich resigned from the Board effective March 31, 2011

- (1) Amounts relate to stock option awards and reflect the aggregate full grant date fair value calculated in accordance with FASB ASC Topic 718 for stock option awards granted during the fiscal year. Pursuant to SEC rules, the amounts shown in this table exclude the impact of estimated forfeitures related to service-based vesting conditions. These amounts reflect our accounting expense for these awards and do not necessarily correspond to the actual value that may be recognized by the directors. See Note 9 of the Notes to the Consolidated Financial Statements included in our Annual Report on Form 10-K filed on March 7, 2011, and incorporated by reference into this proxy statement, for a discussion of the relevant assumptions used to determine the valuation of our stock awards for accounting purposes in 2010.
- (2) The grant date fair value of the options to purchase 603 shares of common stock that were granted on June 15, 2010 is \$1,625. The grant date fair value of the options to purchase 2,313 shares of common stock that were granted on June 16, 2010 is \$6,131. As of December 31, 2010, total options awards to purchase 19,000 shares of common stock remain outstanding.

- (3) The grant date fair value of the options to purchase 428 shares of common stock that were granted on June 15, 2010 is \$1,154. The grant date fair value of the options to purchase 1,655 shares of common stock that were granted on June 16, 2010 is \$4,387. As of December 31, 2010, total options awards to purchase 6,249 shares of common stock remain outstanding.
- (4) The grant date fair value of the options to purchase 428 shares of common stock that were granted on June 15, 2010 is \$1,154. The grant date fair value of the options to purchase 1,655 shares of common stock that were granted on June 16, 2010 is \$4,387. As of December 31, 2010, total options awards to purchase 16,128 shares of common stock remain outstanding.
- (5) The grant date fair value of the options to purchase 428 shares of common stock that were granted on June 15, 2010 is \$1,154. The grant date fair value of the options to purchase 1,655 shares of common stock that were granted on June 16, 2010 is \$4,387. As of December 31, 2010, total options awards to purchase 11,244 shares of common stock remain outstanding.
- (6) The grant date fair value of the options to purchase 428 shares of common stock that were granted on June 15, 2010 is \$1,154. The grant date fair value of the options to purchase 1,655 shares of common stock that were granted on June 16, 2010 is \$4,387. As of December 31, 2010, total options awards to purchase 6,249 shares of common stock remain outstanding.
- (7) The grant date fair value of the options to purchase 428 shares of common stock that were granted on June 15, 2010 is \$1,154. The grant date fair value of the options to purchase 1,655 shares of common stock that were granted on June 16, 2010 is \$4,387. As of December 31, 2010, total options awards to purchase 8,332 shares of common stock remain outstanding.
- (8) The grant date fair value of the options to purchase 428 shares of common stock that were granted on June 15, 2010 is \$1,154. The grant date fair value of the options to purchase 1,655 shares of common stock that were granted on June 16, 2010 is \$4,387. As of December 31, 2010, total options awards to purchase 12,617 shares of common stock remain outstanding.
- (9) The grant date fair value of the options to purchase 428 shares of common stock that were granted on June 15, 2010 is \$1,154. The grant date fair value of the options to purchase 1,655 shares of common stock that were granted on June 16, 2010 is \$4,387. As of December 31, 2010, total options awards to purchase 8,332 shares of common stock remain outstanding.

During 2010, each non-employee director of Verenium received an annual retainer of \$25,000, a fee of \$1,500 per board meeting attended, and a fee of \$1,000 per meeting for committee participation. Directors who served as committee chairpersons for board committees received an additional fee of \$1,000 per committee meeting, with the chair of the audit committee receiving an additional retainer of \$7,500 for 2010. In the year ended December 31, 2010, the total fees paid to all non-employee directors were \$527,500 for service on the board. In accordance with Verenium's policy, members of the board of directors were also eligible for reimbursement for expenses incurred in connection with their attendance at board meetings.

Each non-employee director also received awards under Verenium's 2005 Non-Employee Directors' Equity Incentive Plan, or 2005 Plan, and Verenium's 2010 Equity Incentive Plan, or 2010 Plan. Only non-employee directors of Verenium are eligible to receive options or other equity-based awards under the 2005 Plan, while the 2010 Plan is open to employees and non-employees. Although no further available options are available for grant under the 2005 Plan, options granted under the 2005 Plan are intended by Verenium not to qualify as incentive stock options under the Internal Revenue Code of 1986, as amended. Stock awards and awards of stock options under the 2005 Plan are discretionary, with the exception of an automatic annual grant of options to purchase 2,083 shares of common stock, plus an additional 833 shares in the case of the chairman of the board, to each non-employee director who has served on the board at least 12 months, granted on the next business day following the date of each annual meeting of stockholders. As of March 31, 2011, 80,482 shares are authorized for issuance under the 2005 Plan, 80,842 options are outstanding and zero options have been exercised.

PROPOSAL NO . 2

RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The audit committee has selected Ernst & Young LLP as Verenium's independent registered public accounting firm for the year ending December 31, 2011 and has further directed that management submit the selection of independent registered public accounting firm for ratification by the stockholders at the Verenium annual meeting. Ernst & Young LLP has audited Verenium's financial statements since 1999. Representatives of Ernst & Young LLP are expected to be present at the Verenium annual meeting, will have an opportunity to make a statement if they so desire, and will be available to respond to appropriate questions.

Stockholder ratification of the selection of Ernst & Young LLP as Verenium's independent registered public accounting firm is not required by Delaware law, Verenium's certificate of incorporation, or its bylaws. However, the audit committee is submitting the selection of Ernst & Young LLP to the stockholders for ratification in accordance with the charter of the audit committee and as a matter of good corporate practice. If the stockholders fail to ratify the selection, the audit committee will reconsider whether to retain that firm. Even if the selection is ratified, the audit committee in its discretion may direct the appointment of different independent registered public accounting firm at any time during the year if they determine that such a change would be in the best interests of Verenium and its stockholders.

The affirmative vote of the holders of a majority of the shares present in person or represented by proxy and entitled to vote at the Verenium annual meeting will be required to ratify the selection of Ernst & Young LLP. Abstentions will be counted toward the tabulation of votes cast on Proposal No. 2 and will have the same effect as negative votes. Broker non-votes will be counted towards a quorum, but will not be counted for any purpose in determining whether Proposal No. 2 has been approved.

Principal Accountant Fees and Services

The following table represents aggregate fees billed to Verenium for the fiscal years ended December 31, 2010 and December 31, 2009 by Ernst & Young LLP, Verenium's principal independent registered public accounting firm.

	Fiscal Year Ended	
	2010	2009
Audit Fees	\$825,000	\$1,025,000
Audit-Related Fees	—	25,000
All Other Fees	23,000	—
Total Fees	\$848,000	\$1,050,000

Total audit fees for both 2010 and 2009 relate to professional services rendered by Ernst & Young LLP in conducting their integrated audit of Verenium's financial statements and attestation on management's report on internal controls in accordance with Section 404 of the Sarbanes-Oxley Act of 2002. The 2009 audit fees include \$95,000 for accounting consultations pertaining to new convertible debt authoritative guidance, the 8% senior convertible notes exchange and for the consultation pertaining to the consolidation of the second joint venture with BP Biofuels North America LLC. Further \$85,000 of the 2009 audit fee was in connection with a required comfort letter for our equity offering in October 2009. All of our audit-related fees pertained to a subsidiary agreed upon procedures review. The 2010 audit fees include \$35,000 for accounting consultations pertaining to the sale of our ligno-cellulosic biofuels business and assistance with response to new accounting pronouncements adopted during 2010, an additional \$15,000 related to our Securities and Exchange Commission comment letter dated October 29, 2010 and \$5,000 for an 8-K that was filed that required a signed consent. All other fees pertain to consultations made that were not directly related to the performance of the audit.

Verenium also engaged a third-party firm to assist in preparing for the Sarbanes-Oxley Section 404 audit and was billed an aggregate of approximately \$106,000 and \$82,000 for these services in 2010 and 2009, respectively.

Pre-Approval Policies and Procedures

The audit committee has adopted a policy and procedures for the pre-approval of audit and non-audit services rendered by Verenum's independent registered public accounting firm, Ernst & Young LLP. The policy generally pre-approves specified services in the defined categories of audit services, audit-related services, and tax services up to specified amounts. All fees were pre-approved by the audit committee for fiscal year 2010. Pre-approval may also be given as part of the audit committee's approval of the scope of the engagement of the independent registered public accounting firm or on an individual explicit case-by-case basis before the independent registered public accounting firm is engaged to provide each service. The pre-approval of services may be delegated to one or more of the audit committee's members, but the decision must be reported to the full audit committee at its next scheduled meeting.

The audit committee has determined that the rendering of the services other than audit services by Ernst & Young LLP is compatible with maintaining the independent registered public accounting firm's independence. None of the fees paid to the independent registered public accounting firm described above were approved by the audit committee after services were rendered pursuant to the de minimis exception established by the Securities and Exchange Commission.

**THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS THAT STOCKHOLDERS VOTE
"FOR" PROPOSAL NO. 2.**

REPORT OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS*

The audit committee is governed by the Audit Committee Charter. The audit committee is comprised of three directors, Ms. Wenzinger, Dr. Kaufmann and Mr. Zak, each of whom meets the current independence and experience requirements of the listing standards of the NASDAQ Stock Market. The board of directors has determined that Ms. Wenzinger is an audit committee financial expert as defined by the rules of the Securities and Exchange Commission.

Management has the primary responsibility for the preparation, presentation and integrity of the financial statements and the reporting process, including the systems of internal and disclosure controls. The purpose of the audit committee is to assist the board of directors in fulfilling its oversight responsibilities for the financial reporting process, the system of internal control, the audit process, and the Company's process for monitoring compliance with financial laws and regulations and the code of business conduct and ethics. The Company's independent registered public accounting firm, Ernst & Young LLP, are responsible for performing an independent audit of the consolidated financial statements, expressing an opinion on the conformity of those financial statements with accounting principles generally accepted in the United States and auditing of and expressing an opinion on the effectiveness of the Company's internal control over financial reporting, in accordance with the standards established by the Public Company Accounting and Oversight Board (PCAOB) and issuing a report thereon.

The audit committee held eight meetings during 2010, all of which included an opportunity for separate executive sessions of the audit committee with the independent registered public accounting firm and among the audit committee members themselves. The audit committee met in executive session in six of its meetings in 2010.

The audit committee discussed with the Company's independent registered public accounting firm the overall scope and plans for their audits of the Company's financial statements and their approach to the assessment of the Company's internal controls over financial reporting. The audit committee reviewed and discussed with management and the independent registered public accounting firm the audited financial statements and the results of the assessment of internal controls over financial reporting. These reviews included discussions with the independent registered public accounting firm of matters as are required to be discussed with the audit committee by Statement on Auditing Standards No. 61, as amended (AICPA, *Professional Standards*, Vol. 1, AU section 380) as adopted by the PCAOB in Rule 3200T. The audit committee has received the written disclosures and the letter from the independent registered public accounting firm required by applicable requirements of the PCAOB regarding the independent registered public accounting firm's communications with the audit committee concerning independence, and has discussed with the independent registered public accounting firm the independent registered public accounting firm's independence.

In reliance on the foregoing, the audit committee recommended to the board of directors that the audited financial statements and management's assessment of the effectiveness of the Company's internal control over financial reporting be included in the Annual Report on Form 10-K for the year ended December 31, 2010 for filing with the Securities and Exchange Commission. The audit committee has also recommended, subject to stockholder approval, the selection of Ernst & Young LLP as the Company's independent registered public accounting firm for the year ending December 31, 2011.

Audit Committee:

Ms. Cheryl A. Wenzinger (Chair)

Dr. Fernand Kaufmann

Mr. Michael Zak

* The material in this report is not "soliciting material," is not deemed "filed" with the Securities and Exchange Commission, and is not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date hereof and irrespective of any general incorporation language contained in such filing.

VERENIUM'S MANAGEMENT

<u>Name</u>	<u>Age</u>	<u>Title</u>
James E. Levine	40	President, Chief Executive Officer and Director
Janet S. Roemer	55	Executive Vice President, Chief Operating Officer
Jeffrey G. Black	42	Senior Vice President, Chief Financial Officer
Alexander A. Fitzpatrick	44	Senior Vice President, General Counsel and Secretary

Mr. James (Jamie) E. Levine became President and Chief Executive Officer in April 2011. He joined Verenum in April 2009 as Executive Vice President and Chief Financial Officer. Prior to joining Verenum, Mr. Levine held various positions with the global investment banking and securities firm, Goldman Sachs & Co., where he most recently served as a Managing Director in the Power and Utilities Group in New York. Before that he served as a Managing Director in the Goldman Sachs Energy Group in London which included responsibility for covering the integrated oil and gas and the refining and marketing sectors. In both of these positions Mr. Levine advised both corporate clients and private equity firms on valuing, acquiring and financing commodity-exposed businesses. Prior to Goldman Sachs, Mr. Levine held positions with Lehman Brothers, Inc. in New York, and Industrial Economics, Inc. in Cambridge, Massachusetts. Mr. Levine received an M.B.A. degree with a concentration in Finance from the Wharton School of the University of Pennsylvania and a B.A. in Economics from Brandeis University in Waltham, Massachusetts.

Ms. Janet S. Roemer joined Verenum in March 2008, as Executive Vice President of the Specialty Enzymes Business Unit and became Chief Operating Officer of Verenum in July 2010. Prior to joining Verenum, Ms. Roemer held several positions with BP Group, one of the world's largest oil and gas companies. She was Chief of Staff to the CEO of Innovene, a \$24 billion petrochemical and refining business within BP Group. Prior to that, Ms. Roemer held executive level roles including chief executive of a \$1.7 billion North American chemical business, Vice President of Digital Business, and General Manager of a \$700 million global chemical business. Ms. Roemer also held various positions at Amoco Corporation between 1983 and 1999, in sales and marketing management, product management, production planning and logistics, and strategic planning. She began her career as a chemist at National Starch and Chemical. Ms. Roemer received an M.B.A. from the University of Chicago, and a Bachelor's degree in Chemistry from Miami University in Oxford, Ohio.

Mr. Jeffrey G. Black became Senior Vice President and Chief Financial Officer in April 2011. Mr. Black joined Verenum (formerly Diversa) in 2005 as Chief Accounting Officer. Mr. Black has nearly 20 years in financial management and advisory roles and has served in senior level financial management roles for six publicly-traded companies. Mr. Black's experience includes serving as Executive Director of Accounting and Corporate Controller of Isis Pharmaceuticals, Inc. and Principal and Interim Financial Executive of Regent Pacific Management Corporation, a financial advisory firm through which he served as Vice President of Finance and Corporate Controller of Clarent Corporation and Vice President and Corporate Controller of Accelerated Networks, Inc. Mr. Black is a certified public accountant (inactive) and began his career with Ernst & Young LLP. Mr. Black graduated with a bachelor's degree in business from the University of Arizona.

Mr. Alexander A. Fitzpatrick became Verenum's Senior Vice President, General Counsel and Secretary in November 2010. Prior to joining Verenum, Mr. Fitzpatrick served as Senior Vice President, General Counsel and Secretary of Kintera, Inc, a publicly traded technology company. Following the sale of Kintera, Mr. Fitzpatrick continued to serve in a similar position for a major division of Blackbaud, Inc. Previously, Mr. Fitzpatrick was Director of Strategic Transactions for a division of Vivendi Universal SA. Prior to that, as a member of the business, corporate and technology departments with the law firms Cooley LLP and Latham & Watkins LLP in San Diego, and Rogers & Wells LLP (now Clifford Chance) in London, Mr. Fitzpatrick represented biotech and other technology companies, investment banks and venture capitalists in a variety of transactions including numerous collaborations, mergers and acquisitions, intellectual property matters, licensing and financing activity. Mr. Fitzpatrick received a B.S. in mathematics from Georgetown University a J.D. from the University of California, Berkeley.

**SECURITY OWNERSHIP OF
CERTAIN BENEFICIAL OWNERS AND MANAGEMENT**

The following table shows information known to Verenium with respect to the beneficial ownership of Verenium's common stock as of March 31, 2011 by:

- each person or group of affiliated persons who is known by Verenium to own beneficially more than 5% of Verenium common stock;
- each of Verenium's current directors;
- each of Verenium's named executive officers identified below; and
- all of Verenium's directors and executive officers as a group.

As of March 31, 2011, there were 12,612,352 shares of Verenium common stock issued and outstanding. The numbers of shares beneficially owned include shares of common stock that the listed beneficial owners have the right to acquire within 60 days of March 31, 2011, upon the exercise of all options and other rights beneficially owned on that date. Unless otherwise noted, Verenium believes that all persons named in the table have sole voting and investment power with respect to all the shares beneficially owned by them.

<u>Name and Address of Beneficial Owner</u>	<u>Beneficial Ownership(1)</u>	
	<u>Number of Shares</u>	<u>Percent of Total</u>
AWM Investment Company, Inc.(2) 527 Madison Avenue, Suite 2600 New York, New York 10022	1,134,747	9.0%
Carlos A. Riva(3)	305,757	2.4%
Janet S. Roemer(4)	32,610	*
James E. Levine(5)	67,714	*
James H. Cavanaugh, Ph.D.(6)	566,276	4.6%
Peter Johnson(7)	11,792	*
Fernand Kaufmann, Ph.D.(8)	6,914	*
John F. Dee(9)	2,589	*
Joshua Ruch(10)	491,809	3.9%
Cheryl A. Wenzinger(11)	7,543	*
Michael Zak(12)	359,066	2.8%
Mary Ellen Jones(13)	45,269	*
Jeffrey G. Black(14)	17,711	*
Former Officers:		
William H. Baum	13,826	*
Gerald M. Haines II	—	—

* Less than one percent.

(1) This table is based upon information supplied by officers, directors, and principal stockholders and Schedules 13D and 13G filed with the Securities and Exchange Commission. Unless otherwise indicated in the footnotes to this table and subject to community property laws where applicable, Verenium believes that each of the stockholders named in this table has sole or shared voting and/or investment power with respect to the shares indicated as beneficially owned. Applicable percentages are based on 12,612,352 shares outstanding on March 31, 2011, adjusted as required by rules promulgated by the Securities and Exchange Commission.

- (2) Austin W. Marxe and David M. Greenhouse are controlling principals of AWM Investment Company, Inc., the general partner of and investment adviser to Special Situations Cayman Fund, L.P. AWM Investment Company, Inc. also serves as the general partner of MGP Advisers Limited Partnership, the general partner of Special Situations Fund III QP, L.P., and serves as the investment adviser to Special Situations Fund III QP, L.P. Austin W. Marxe and David M. Greenhouse share sole voting and investment power over (i) 426,234 shares of common stock and rights to acquire 26,146 shares of common stock pursuant to outstanding warrants exercisable within 60 days of March 31, 2011 owned by Special Situations Cayman Fund, L.P. and (ii) 708,513 shares of common stock and rights to acquire 26,146 shares of common stock pursuant to outstanding warrants exercisable within 60 days of March 31, 2011 owned by Special Situations Fund III QP, L.P. As set forth in the terms of the warrants, the number of shares of common stock into which the warrants are exercisable is limited to the number of shares that would result in the beneficial owner having aggregate beneficial ownership of not more than 9.99% of the total issued and outstanding shares of common stock.
- (3) Includes 239,814 shares of common stock Mr. Riva has the right to acquire pursuant to outstanding options exercisable within 60 days of March 31, 2011.
- (4) Includes 16,327 shares of common stock Ms. Roemer has the right to acquire pursuant to outstanding options exercisable within 60 days of March 31, 2011.
- (5) Includes 13,542 shares of common stock Mr. Levine has the right to acquire pursuant to outstanding options exercisable within 60 days of March 31, 2011.
- (6) Includes 541,476 shares of common stock held by HealthCare Ventures III, L.P.; 79,159 shares of common stock held by HealthCare Ventures IV, L.P.; 139,803 shares of common stock held by HealthCare Ventures V, L.P.; and 53,208 shares of common stock held by HealthCare Ventures VI, L.P. (collectively, the "Healthcare Ventures Funds"). Dr. Cavanaugh is a general partner of the general partner of each of the Healthcare Ventures Funds and shares investment and voting power over these shares with the general partners of each of the general partners of the Healthcare Ventures Funds, none of whom are affiliated with Verenum. Dr. Cavanaugh disclaims beneficial ownership of the shares of common stock held by the Healthcare Ventures Funds except to the extent of his pecuniary interest therein. Also includes 10,976 shares of common stock Dr. Cavanaugh has the right to acquire pursuant to outstanding options exercisable within 60 days of March 31, 2011.
- (7) Includes 9,759 shares of common stock Mr. Johnson has the right to acquire pursuant to outstanding options exercisable within 60 days of March 31, 2011.
- (8) Includes 6,081 shares of common stock Dr. Kaufmann has the right to acquire pursuant to outstanding options exercisable within 60 days of March 31, 2011.
- (9) Includes 2,589 shares of common stock Mr. Dee has the right to acquire pursuant to outstanding options exercisable within 60 days of March 31, 2011.
- (10) Includes (i) 188,864 shares of common stock held by Rho Management Trust II; (ii) 60,578 shares (including 1,579 shares under warrants exercisable within 60 days of March 31, 2011) held by Rho Management Trust I; (iii) 27,802 shares of common stock (including 725 shares of common stock under warrants exercisable within 60 days of March 31, 2011) held by Rho Ventures IV, L.P.; (iv) 65,457 shares of common stock (including 1,706 shares under warrants exercisable within 60 days of March 31, 2011) held by Rho Ventures IV (QP), L.P.; (v) 68,212 shares of common stock (including 1,778 shares under warrants exercisable within 60 days of March 31, 2010) held by Rho Ventures IV GmbH & Co. Beteiligungs KG. Mr. Ruch is (i) a managing partner of Rho Capital Partners, Inc., which is the investment advisor to Rho Management Trust I and Rho Management Trust II, (ii) a managing member of Rho Management Ventures IV, L.L.C., which is the general partner of Rho Ventures IV, L.P. and Rho Ventures IV (QP), L.P., and (iii) a managing director of Rho Capital Partners Verwaltungs GmbH, which is the general partner of Rho Ventures IV GmbH & Co. Beteiligungs KG. Also includes 73,019 shares of common stock held by Rho Investment Partners "H" L.P., a foundation of which Mr. Ruch serves as trustee; (ii) 41

shares held in Mr. Ruch's 401(k) Plan; (iii) 41 shares held by a foundation managed by Mr. Ruch; and (iv) 12 shares held by certain of Mr. Ruch's family members. Mr. Ruch disclaims beneficial ownership of all of the shares set forth above, except to the extent of his pecuniary interest therein. Also includes 3,912 shares of common stock Mr. Ruch, in his individual capacity, has the right to acquire pursuant to outstanding options exercisable within 60 days of March 31, 2011.

- (11) Includes 7,126 shares of common stock Ms. Wenzinger has the right to acquire pursuant to outstanding options exercisable within 60 days of March 31, 2011.
- (12) Includes 333,231 shares owned by Charles River Partnership XII, LP ("CRP XII"). Mr. Zak is a managing member of the general partner of the general partner of CRP XII and may be deemed to beneficially own the shares owned by CRP XII. Also includes 3,912 shares of common stock Mr. Zak has the right to acquire pursuant to outstanding options exercisable within 60 days of March 31, 2011.
- (13) Includes 45,269 shares of common stock Ms. Jones has the right to acquire pursuant to outstanding options exercisable within 60 days of March 31, 2011.
- (14) Includes 13,461 shares of common stock Mr. Black has the right to acquire pursuant to outstanding options exercisable within 60 days of March 31, 2011.

SECTION 16(A) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Exchange Act requires Verenium's directors and executive officers, and persons who own more than 10% of a registered class of Verenium's equity securities, to file with the Securities and Exchange Commission initial reports of ownership and reports of changes in ownership of common stock and other equity securities of Verenium. Officers, directors and greater than 10% stockholders are required by Securities and Exchange Commission regulation to furnish Verenium with copies of all Section 16(a) forms they file.

To Verenium's knowledge, based solely on a review of the copies of such reports furnished to Verenium and written representations that no other reports were required, during the fiscal year ended December 31, 2010, all Section 16(a) filing requirements applicable to its officers, directors and greater than 10% beneficial owners were complied with timely.

EXECUTIVE COMPENSATION

Although Verenium qualifies as a "smaller reporting company" and is not required to include the following Compensation Discussion and Analysis disclosure, or certain of the disclosures provided in the compensation tables, Verenium has elected to provide such supplemental disclosures for the benefit of its stockholders consistent with Verenium's prior compensation disclosure practices.

Compensation Discussion and Analysis

Introduction

This Compensation Discussion and Analysis provides information regarding our compensation programs and policies for the following executives (these named executive officers are referred to in this Compensation Discussion and Analysis and in the subsequent tables as our “NEOs”):

Carlos A. Riva	President, Chief Executive Officer and Director*
James E. Levine	Executive Vice President and Chief Financial Officer**
Janet S. Roemer	Executive Vice President, Chief Operating Officer
Jeffrey G. Black	Senior Vice President, Chief Accounting Officer***
Mary Ellen Jones	Senior Vice President, Human Resources****
William H. Baum	Former Executive Vice President, Business Development*****
Gerald M. Haines II	Former Executive Vice President, Chief Legal Officer, and Secretary*****

* Mr. Riva retired as a President, Chief Executive Officer and Director effective March 31, 2011.

** Mr. Levine was promoted to President, Chief Executive Officer and Director effective March 31, 2011.

*** Mr. Black was promoted to Senior Vice President, Chief Financial Officer effective March 31, 2011.

**** Ms. Jones resigned as an executive officer effective March 31, 2011.

***** Mr. Baum resigned as an executive officer effective September 2, 2010.

***** Mr. Haines resigned as an executive officer effective June 30, 2010.

Our Compensation Philosophy and Objectives

Verenium believes that compensation of our NEOs should:

- provide a means for Verenium to attract, retain and reward talented, high-quality executives who will make critical contributions to our long-term success;
- inspire our executive officers to achieve Verenium’s business objectives; and
- align the financial interests of the executive officers with those of the stockholders.

To achieve these objectives, we use a mix of compensation elements, including:

- base salary;
- annual cash incentives;
- long-term equity incentives;
- standard employee benefits; and
- severance and change of control benefits.

In determining the amount and form of these compensation elements, we may consider a number of factors, including the following:

- Compensation levels paid by companies in our peer group, with a particular focus on having each compensation element and the target total cash and equity compensation levels at or around the 50th

percentile of the compensation paid to similarly situated officers employed by those peer companies, as we believe this approach helps us to compete in hiring and retaining the best possible talent while at the same time maintaining a reasonable and responsible cost structure;

- Corporate performance, as we believe this encourages our executives to focus on achieving Verenium's business objectives;
- The need to motivate executives to address particular business challenges that are unique to any given year;
- Broader economic conditions, in order to ensure that our pay strategies are effective yet responsible, particularly in the face of any unanticipated consequences of the broader economy on our business; and
- Individual negotiations with executives, particularly in connection with their initial compensation package, as these executives may be leaving meaningful compensation opportunities at their prior employers in order to come work for us, as well as upon their departures, as we recognize the benefit to our stockholders of seamless transitions.

Role of Our Compensation Committee

Verenium's compensation committee is generally responsible for reviewing, modifying, approving and otherwise overseeing the compensation policies and practices applicable to our employees, including the administration of Verenium's equity plans and employee benefit plans. As part of this responsibility, the compensation committee establishes, reviews and modifies the compensation structure for our NEOs. However, the compensation committee may, at its discretion and in accordance with the philosophy of making all information available to the board, present executive compensation matters to the entire board for their review and approval. The compensation committee presented its recommendations on 2010 base salary, target bonus levels and equity awards for our NEOs to the board for approval by the independent, outside, non-employee directors on the board. The board approved the compensation committee's recommendations as presented.

As part of its deliberations, in any given year, the compensation committee may review and consider materials such as our financial reports and projections, operational data, tax and accounting information that set forth the total compensation that may become payable to executives in various hypothetical scenarios, executive and director stock ownership information, our stock performance data, analyses of historical executive compensation levels and current company-wide compensation levels, and the recommendations of the Chief Executive Officer, the Senior Vice President of Human Resources and the compensation committee's independent compensation consultant.

Historically, the compensation committee considers its annual executive compensation matters at its regularly scheduled December and February meetings. However, the compensation committee also holds additional meetings during the year to make executive compensation decisions on an as-needed basis.

Role of Our Independent Compensation Consultant

In connection with making its recommendations for executive compensation for 2010, the compensation committee engaged Pearl Meyer & Partners to act as its independent compensation consultant. The compensation committee directed Pearl Meyer & Partners to provide its analysis of whether Verenium's existing compensation strategy and practices were consistent with our compensation objectives and to assist the compensation committee in modifying our compensation program for executive officers in order to better achieve our objectives. As part of its duties, Pearl Meyer & Partners provided the compensation committee with the following services:

- reviewed and provided recommendations on composition of peer groups;
- provided compensation data for similarly situated executive officers at our peer group companies;

- conducted a review of the compensation arrangements and provided advice on compensation for all of our officers, including providing advice on the design and structure of our annual executive incentive bonus plan and executive long-term incentive equity program (including an analysis of equity mix, aggregate share usage and target grant levels);
- conducted a review of compensation for our board, and provided recommendations to the compensation committee and the board regarding board pay structure; and
- updated the compensation committee on emerging trends/best practices in the area of executive and board compensation, including compensation risk analysis.

In keeping with Verenum's philosophy of obtaining independent compensation consulting advice in making its executive compensation decisions, Pearl Meyer & Partners does not provide any other services to Verenum.

In December 2009 and December 2010, the compensation committee met with Pearl Meyer & Partners with management present. Verenum's Senior Vice President of Human Resources works with Pearl Meyer & Partners to provide any information Pearl Meyer & Partners needs about Verenum and compensation of our NEOs in order to provide its services.

Role of Our Management

For executives other than the Chief Executive Officer, the compensation committee solicits and considers the performance evaluations and compensation recommendations submitted to the compensation committee by the Chief Executive Officer and the Senior Vice President of Human Resources. In the case of the Chief Executive Officer, the compensation committee evaluates his performance and determines whether to make any adjustments to his compensation in an executive session which typically occurs annually at its February meeting. No NEO was present or participated directly in the final determinations or deliberations of the compensation committee regarding the amount of any component of his own 2010 compensation package.

Our Senior Vice President of Human Resources works with our Chief Executive Officer to design and develop compensation programs applicable to NEOs and other senior executives, to recommend changes to existing compensation programs, to recommend financial and other performance targets to be achieved under those programs, to prepare analyses of financial data, to prepare peer comparisons and other compensation committee briefing materials and ultimately, to implement the decisions of the compensation committee. Our Senior Vice President of Human Resources provides Pearl Meyer & Partners with information on proposals that management may make to the compensation committee, as well as to allow the consultants to collect information about Verenum to develop their own proposals.

Compensation Benchmarking

The compensation committee reviews relevant market and industry practices on executive compensation to balance our need to compete for talent with the need to maintain a reasonable and responsible cost structure while aligning our executive officers' interests with those of our stockholders. To assist the compensation committee in its deliberations on executive compensation to be provided for 2010 and 2011, Pearl Meyer & Partners collected and analyzed compensation data from the peer group selected by the compensation committee. This data was drawn by Pearl Meyer & Partners from individual company proxy filings.

Peer Group

In determining the peer group, Pearl Meyer & Partners worked with Verenum's Chief Executive Officer and Senior Vice President of Human Resources to develop a recommended list of peers for the compensation committee's consideration. This recommended list contained companies that (1) the officers believed compete

for talent with Verenum, (2) were in the life sciences, biotechnology, energy, and biofuels industries space, as this review was done for fiscal year 2010 and before the sale of our ligno-cellulosic biofuels business, (3) had approximate revenue levels of \$17 million to \$612 million, and thus were similar in size to the anticipated revenue levels for Verenum for 2010, and (4) are publicly traded and have a business with a level of complexity that is similar to Verenum's. For fiscal year 2010, the compensation committee approved, this list of 12 peer group companies:

- Albany Molecular Research, Inc.
- Dyax Corporation
- Exelixis Inc.
- Lexicon Pharmaceuticals, Inc.
- Maxygen, Inc.
- Senomyx, Inc.
- Hawkins, Inc.
- Rentech, Inc.
- Oncothyreon, Inc.
- XOMA, Ltd.
- Evergreen Energy, Inc.
- Green Plains Renewable Energy, Inc.

After the sale of our ligno-cellulosic biofuels business in September 2010, in December 2010 an updated peer analysis was conducted to establish updated compensation amounts for some NEO's with reorganized capacities. As such, Our NEO compensation benchmarks for 2011 were based in part upon the following list of 13 peer group companies:

- Albany Molecular Research, Inc.
- Dyax Corporation
- Exelixis Inc.
- Lexicon Pharmaceuticals, Inc.
- Maxygen, Inc.
- Senomyx, Inc.
- Hawkins, Inc.
- Rentech, Inc.
- Amyris, Inc.
- XOMA, Ltd.
- Evergreen Energy, Inc.
- Codexis, Inc.
- TECHNE Corp.

Compensation Positioning and Compensation Allocations

In general, the compensation committee tries to provide for target total cash and equity compensation levels at or around the 50th percentile of the compensation paid to similarly situated officers employed by the peer

group companies for target level performance, with compensation above this level possible for exceptional performance. In trying to achieve this 50th percentile positioning for target levels of compensation, the compensation committee generally sets the various compensation elements as follows:

- base salaries at or near the 50th percentile for our peer group companies,
- target cash bonus compensation at a level such that, when combined with base salary, the target cash compensation is at or near the 50th percentile for our peer group companies,
- target equity compensation for our chief executive officer at a level such that, when combined with target cash compensation, target total cash and equity compensation for our chief executive officer is at or near the 50th percentile for chief executive officers at our peer group companies, and
- because directly comparable peer group equity compensation data for our NEOs other than our chief executive officer is not available (due to higher levels of responsibility of our NEOs than that of our peer companies), we target equity compensation for our NEOs other than our chief executive officer at a level reflective of such NEOs responsibilities in relation to that of our chief executive officer.

The table below provides total vested and unvested options and unvested shares as of December 31, 2010 as a percentage of total outstanding shares for each NEO, as compared to the 50th percentile for the Company's peer group, based upon that study.

<u>Named Executive Officer</u>	<u>Total Vested and Unvested Options and Shares Outstanding</u>	<u>As a % of Common Shares Outstanding</u>	<u>Peer Group 50th Percentile</u>
Carlos A. Riva	343,302	2.772%	2.762%
James E. Levine	125,833	0.998%(1)	0.536%
Janet S. Roemer	99,914	0.792%(2)	0.536%
Jeffrey G. Black	57,374	0.455%	0.536%
Mary Ellen Jones	59,958	0.475%	0.536%

The compensation committee's takes a balanced approach to allocating compensation among the various components, so that each element of compensation is targeted at or near the 50th percentile for our peer group companies. Our compensation committee believes targeting each element of compensation at or near the 50th percentile for our peer group is necessary in order to achieve the primary objectives, described above, of Verenum's executive compensation program. Because the compensation committee believes that the compensation levels for our peer group companies for each element of compensation already reflect an appropriate balance between cash and non-cash compensation, and between current compensation and long-term incentives, the compensation committee does not make additional adjustments in balancing these elements of our NEOs compensation.

- (1) In August 2010, Mr. Levine was granted an additional option to purchase 85,000 shares of common stock, in recognition of his increased responsibilities and duties beyond that typically applicable to a chief financial officer, including his business development efforts and his efforts in the successful sale of our ligno-cellulosic business to BP.
- (2) In August 2010, Ms. Roemer was granted an additional option to purchase 62,000 shares of common stock in connection with her increased responsibilities and promotion to Chief Operating Officer.

The table below provides total base salary and target bonus data as of December 31, 2010 as a percentage of base salary shares for each NEO, as compared to the 50th percentile for the Company's peer group, based upon that study.

<u>Named Executive Officer</u>	<u>Base Salary</u>	<u>Target Bonus %</u>	<u>Target Total Cash</u>	<u>Peer Group 50th Percentile Target Total Cash</u>
Carlos A. Riva	495,000	60%	\$792,000	\$645,000-\$970,000
James E. Levine	330,000	50%	\$495,000	\$350,000-\$550,000
Janet S. Roemer	310,000	50%	\$465,000	\$360,000-\$565,000
Jeffrey G. Black	260,000	40%	\$364,000	\$260,000-\$415,000
Mary Ellen Jones	236,000	40%	\$331,000	\$275,000-\$420,000

Benchmarking is not the only factor the compensation committee considers in setting total compensation and any one element of total compensation. Other factors, such as economic conditions, performance and individual negotiations, may play an important role (or no role) with respect to the compensation offered to any executive in any given year. In addition to considering the peer group data, the compensation committee also considers the duties and responsibilities of each executive and ability to influence corporate performance in setting actual compensation levels for such executive. We believe this approach help us to compete in hiring and retaining the best possible talent while at the same time maintaining a reasonable and responsible cost structure.

Reasons for Providing, and Manner of Structuring, the Key Compensation Elements in 2010

Base Salary. We provide base salary as a fixed source of compensation for our executives, allowing them a degree of certainty in the face of having a large portion of their compensation “at risk.” The compensation committee recognizes the importance of base salaries as an element of compensation that helps to attract and retain our executives. Therefore, base salaries need to be at levels that are competitive with salaries provided by our peer group companies, and so we generally target base salary levels at the 50th percentile of our peer group companies.

Each year, the compensation committee reviews the annual salaries for each of Verenum's NEOs, considering whether existing base salary levels continue to be at the 50th percentile for Verenum's peer group companies. In addition to considering the peer group data, the compensation committee may, but does not always, also consider other factors, including the salary level negotiated by an executive in his existing employment agreement, broader economic conditions, the financial health of Verenum, and whether the compensation committee is generally satisfied with an executive's past performance and expected future contributions.

At the February 2010 meeting, the compensation committee determined that base salary levels for all of our NEOs continued to be at approximately the 50th percentile of base salaries for similarly situated executives at our peer group companies. Therefore, the compensation committee determined that the base salary amounts for our NEOs would not be increased for 2010.

In connection with her promotion to Chief Operating Officer in August 2010, Ms. Roemer's annual base salary was increased from \$280,000 to \$310,000. In August 2010, Mr. Levine's annual base salary was increased from \$310,000 to \$330,000 to reflect his increased responsibilities in connection with business development activities.

However, in connection with their respective promotions to President and Chief Executive Officer, and Senior Vice President and Chief Financial Officer, each effective March 31, 2011, Mr. Levine's base salary was increased to \$390,000 and Mr. Black's base salary was raised to \$280,000. Ms. Roemer's base salary was increased to \$325,000 in consideration of her increased responsibilities.

Variable Cash Compensation. In addition to earning a base salary, the NEOs are eligible to earn additional cash compensation through annual (that is, short-term) variable cash bonuses. Target bonus payment levels are expressed as a percentage of base salary. The variable bonuses are intended to motivate executives to achieve Company-wide operating and/or strategic objectives, and to work at the highest levels of their individual abilities. The compensation committee also recognizes the important role that variable cash compensation plays in attracting and retaining our executives, and therefore sets target levels for variable bonuses (that is, payouts for target performance achievement) so that target total cash compensation falls at or near the 50th percentile for target total cash compensation of executives at our peer group companies. By targeting incentive compensation at the 50th percentile of our peers, the compensation committee makes a significant portion of our executive officers' total cash compensation "at risk," helping Verenum implement a culture in which the officers know that their take home pay, to a large extent, depends on Verenum's performance.

In May 2010, the compensation committee approved the 2010 Short-Term Incentive Plan. More specifically, in May 2010, the compensation committee considered potential performance and retention measures for the 2010 fiscal year as recommended by Verenum's Chief Executive Officer and Senior Vice President of Human Resources. The compensation committee reviewed these recommendations without management present, and made the final determination of the corporate performance goals for 2010.

In setting the goals for the year, the compensation committee generally considers individual and corporate performance in a subjective manner and without reliance on specific formulas. In addition, the compensation committee may modify these goals at any time during the year. The compensation committee generally assigns equal weight to each of the corporate goals, but actual award determinations are within the committee's discretion. At the close of the applicable fiscal year, the compensation committee comes to a general, subjective conclusion as to whether the corporate goals were met, whether the executive has performed his duties in a satisfactory manner, and whether there were any other extraordinary factors that should be considered in determining the amount of bonus earned for the year. The compensation committee may decide to pay bonuses to the executive officers even if the performance goals are not met in recognition of the officer's efforts throughout the year. In making the final decision on the amount of bonuses earned, if any, the compensation committee considers the review of the year-end financial results as well as the performance reviews for the executive officers given by the Chief Executive Officer and the Senior Vice President of Human Resources. In sum, the amount of variable compensation that is actually earned by our named executives is a subjective, entirely discretionary, determination made by the compensation committee without the use of pre-determined formulas. The compensation committee believes that maintaining discretion to evaluate Verenum's and the executive's performance at the close of the year based on the totality of the circumstances, and to award or fail to award bonus compensation without reliance on rote calculations under set formulas, is appropriate in responsibly discharging its duties. Payouts of earned bonuses, if any, are generally made in the year following the year of performance.

In May 2010, as part of its approval of the 2010 Short-Term Incentive Plan, payment for the 2009 Short-Term Incentive Plan was also approved at 70% of the established target levels to be conditioned upon (i) the closing of the sale of our ligno-cellulosic biofuels business and (ii) continued employment through such closing, and payable upon such closing. The 2009 Short-Term Incentive Plan was paid out to all Verenum employees in September 2010. In addition, the 2010 Short-Term Incentive Plan was approved at a guaranteed 100% for all Verenum employees, including NEO's, such payment to be conditioned upon (i) the closing of the ligno-cellulosic biofuels business and (ii) continued employment through such closing and through December 31, 2010, payable upon the later of the closing of such transaction or February 2011. The payment of the 2009 and 2010 performance bonuses were conditioned upon the corporate performance goal of the sale of our ligno-cellulosic biofuels business and continued employment through such date because of the critical importance to Verenum of incentivizing the executives to complete the sale of this portion of our business in furtherance of our long-term business strategy. The compensation committee approved the target cash bonuses for each NEO for 2010, as set forth in the table below. The target bonus levels for each of our NEOs reflect the amounts set forth in each of their respective employment agreements with Verenum, most recently entered into in September 2008

for each of our NEOs except with respect to Messrs. Black and Levine, whose employment agreements were entered into in December 2008 and April 2009, respectively. These target bonus percentages for 2010 were not increased from 2009, because the compensation committee determined that these percentages were already at a level that, when taken together with target salary amounts, were at approximately the 50th percentile for target total cash compensation for our peer group companies, and that no other extraordinary factors existed that created a need to modify the existing target bonus levels.

<u>Name</u>	<u>Title</u>	<u>Target Bonus %⁽¹⁾</u>
Carlos A. Riva	President, Chief Executive Officer and Director	60%
James E. Levine	Executive Vice President and Chief Financial Officer	50%
Janet S. Roemer	Executive Vice President, Chief Operating Officer	50%
Jeffrey G. Black	Senior Vice President, Chief Accounting Officer	40%
Mary Ellen Jones	Senior Vice President, Human Resources	40%
William H. Baum	Executive Vice President, Business Development	50%
Gerald M. Haines II	Executive Vice President, Chief Legal Officer, and Secretary	50%

(1) Expressed as a percentage of base salary.

Equity Compensation.

The compensation committee believes that properly structured equity compensation works to align the long-term interests of stockholders and employees by creating a strong, direct link between employee compensation and stock price appreciation. The compensation committee also awards equity because it believes that if our officers own shares of our common stock with values that are significant to them, they will have an incentive to act to maximize longer-term stockholder value instead of short-term gain. The compensation committee also believes that equity compensation is an integral component of Verenum’s efforts to remain competitive in attracting and retaining exceptional executives, senior management and employees. The granting of equity incentive awards is a prevalent industry practice for Verenum’s peer group.

The compensation committee generally makes annual awards of equity compensation after reviewing information provided by the independent compensation consultant so that, when the value of the equity is added to target total cash compensation, the target total cash and equity compensation opportunity falls at or near the 50th percentile for target total compensation of executives at our peer group companies. However, benchmarking is not the only factor that may be considered when setting equity compensation levels. The compensation committee may also consider, in any given year, other factors, including but not limited to the potentially dilutive impact of stock awards on the value of our common stock.

In determining the equity opportunity for each NEO, the compensation committee believes that the long-term incentive opportunity should make up a larger portion of a NEO’s target total compensation as the executive’s level of responsibility increases. Therefore, the equity awards for our most senior level positions are generally greater than the equity awards granted to our less senior NEOs, which is also a prevalent practice of our peer group.

Verenum has historically granted stock options to our NEOs. These options have an exercise price equal to the fair market value of our common stock on the date of grant, and vest based on continued service over a specified period (typically, four years). As a result of the way we structure our option awards, options provide a return to the executive officer only if such officer remains employed by Verenum, and then only if the market price of Verenum’s common stock appreciates over the period in which the option vests. Verenum’s executive compensation program includes a provision for annual grants of long-term incentive compensation generally in the form of stock options or restricted stock awards. Verenum has a historic practice of most prevalently granting stock options in lieu of other forms of equity awards to our NEOs because the executive will receive value from the award only if our stock price increases, thereby aligning our executive’s interests with those of our stockholders.

The amount of options or restricted stock awarded each year is determined each year by Verenum's compensation committee with input from its outside compensation expert and Verenum's Senior Vice President of Human Resources, and typically approved at the December meeting. In determining the number of options or restricted stock awards to be granted to executive officers, in addition to the peer group data the compensation committee takes into consideration the individual's position, scope of responsibility, ability to affect revenues, profits and stockholder value, the value of equity awards in relation to other elements of total compensation, current executive equity holding levels and any gains from prior equity awards. The compensation committee also considers external factors such as current market conditions for executive employees and competitive peer data to determine the amount and value of equity-based compensation awards. For newly hired executives, we also engage in direct negotiations with the candidate over the terms of employment, including the size of the potential equity award to be granted if the candidate accepts our offer of employment.

In September 2010 in conjunction with the close of the sale of our ligno-cellulosic biofuels business, the compensation committee awarded the following NEOs annual grants of the following number of time-based vesting stock options, with an exercise price equal to \$3.04, the closing price of our common stock on the date of grant:

<u>Name</u>	<u>Number of Option Shares</u>
Carlos A. Riva	225,000
James E. Levine	85,000
Janet S. Roemer	62,000
Jeffrey G. Black	31,400
Mary Ellen Jones	27,600

In determining to approve these awards, in addition to the factors described above the compensation committee considered that the NEO equity ownership levels for Messers Riva and Black and for Ms. Jones prior to the grant of the awards were less than the 50th percentile of peer group, and the need to provide competitive long-term equity compensation to the NEOs. Additionally, the compensation committee considered Mr. Levine and Ms. Roemer's increased responsibilities beyond those of comparable executive positions of our peer companies in granting their awards. In order to serve as a retention device, the vesting terms of the option grants were set so that 25% of the options vest on the one year anniversary of the date of grant, and the remainder of the options vest in a series of 12 quarterly installments thereafter, subject to the NEO's continued service with Verenum.

Equity Compensation Policies. Verenum's board of directors reviews the recommendations of Verenum's compensation committee and generally approves the executive equity incentive awards annually. The exercise price of stock options granted by the compensation committee is based on the market closing price of Verenum's common stock on the date the compensation committee approves the grant. The compensation committee has not attempted to coordinate equity awards with the release of material non-public information. Verenum encourages the executive officers to hold a significant equity interest in Verenum, but has not set specific equity ownership guidelines. Verenum has a policy that prohibits its executive officers, directors and other members of management from engaging in short sales, transactions in put or call options, hedging transactions or other inherently speculative transactions with respect to Verenum stock.

Severance Benefits. The employment of each of our NEOs is "at will." The compensation committee believes that in order to continue to retain the services and focus of key executive officers in a high risk, emerging industry it is important to provide them with some income and benefit protection against their potential loss of employment in connection with a change in control of our company or otherwise in connection with certain involuntary terminations and that such severance benefits are critical to attracting and retaining high caliber executives. Therefore, Messrs. Riva, Levine, Roemer, Black and Jones are eligible to receive severance benefits upon certain involuntary terminations of employment under the terms of their respective employment

agreements. These agreements reflect the negotiations of these executives with Verenium, as well as a desire to have internal parity among our NEOs with respect to their potential severance benefits. In addition, the compensation committee believes that change of control severance benefits and accelerated vesting of equity awards, if structured appropriately, serve to minimize the distractions to an executive and reduce the risk that an executive officer departs Verenium before an acquisition is consummated. We believe that our existing arrangements allow our executive officers to focus on continuing normal business operations and, in the case of change of control benefits, on the success of a potential business combination, rather than worrying about how business decisions that may be in the best interest of Verenium will impact their own financial security. That is, these existing arrangements help ensure stability among our executive officer ranks, and will help enable our executive officers to maintain a balanced perspective in making overall business decisions during periods of uncertainty. A more detailed description of these provisions is set forth below under “Employment Agreements.”

Personal Benefits. Verenium seeks to maintain an egalitarian culture in its facilities and operations and therefore does not generally provide perquisites to the NEOs. A supplemental long-term disability insurance plan was historically made available to former Diversa executives. In 2010, only one NEO, Mr. Baum, had coverage under the supplemental plan, which coverage represents a de minimis portion of his 2010 compensation.

Other Employee Benefits . We provide the following benefits to the NEOs, on the same terms and conditions as provided to all other eligible employees:

- medical, dental insurance and vision;
- basic life insurance;
- medical and dependent care flexible spending account;
- short-and long-term disability, accidental death and dismemberment;
- tuition reimbursement;
- employee assistance program; and
- 401(k) plan, with discretionary, non-discriminatory company matching contributions

We believe these benefits are consistent with benefits provided by our peer group companies and help us to attract and retain high quality executives.

Tax Deductibility of Executive Compensation

Section 162(m) of the Code, places a limit of \$1,000,000 on the amount of compensation that Verenium may deduct in any one year with respect to its Chief Executive Officer and certain other highly compensated executive officers. Certain types of performance-based compensation (as defined under Section 162(m)) are not subject to the deduction limit. For example, we believe that the stock options granted to our executive officers qualify under Section 162(m) as performance-based compensation.

To maintain flexibility in compensating the NEOs in a manner designed to promote varying corporate goals, the compensation committee has not adopted a policy that all compensation must be deductible. Accordingly, we have granted and may continue to grant awards such as time-based restricted stock awards when the compensation committee determines that such non-deductible arrangements are otherwise in the best interests of Verenium and its stockholders. The compensation committee intends to continue to evaluate the effects of the compensation limits of Section 162(m) and to grant compensation awards in the future in a manner consistent with the best interests of Verenium and its stockholders.

In 2010, Messrs. Johnson (Chairman) and Ruch and Drs. Cavanaugh and Kaufmann were the members of the compensation committee. None has ever been a Company employee. Each is an “outside director” for purposes of Section 162(m) of the Code. Each is also “independent” within the meaning of Rule 5605(a)(2) of the NASDAQ listing standards.

Conclusion

Through the compensation arrangements described above, a significant portion of the executive officer's compensation is contingent on Verenum's performance. Therefore, the realization of benefits by the executive is closely linked to Verenum's achievements and increases in stockholder value. Verenum remains committed to this philosophy of paying for performance, recognizing that the competitive market for talented executives and the volatility of its business may result in highly variable compensation in any particular time period. The compensation committee gives careful consideration to Verenum's executive compensation program, including each element of compensation for each executive officer. The compensation committee believes our executive compensation program is reasonable in light of the programs of our peer group companies. Our compensation committee also believes that our compensation program gives the executive officers appropriate incentives, based on the each officer's responsibilities, achievements and ability to contribute to Company's performance. We also believe that our executive officers and senior management make significant contributions toward creating stockholder value. Finally, we believe that Verenum's compensation structure and practices encourages management to work for real innovation, business improvements and outstanding shareholder returns, without taking unnecessary or excessive risks.

Risk Analysis of Our Compensation Plans

The compensation committee has reviewed our compensation policies as generally applicable to our employees and believes that our policies do not encourage excessive and unnecessary risk-taking, and that the level of risk that they do encourage is not reasonably likely to have a material adverse effect on Verenum. The design of our compensation policies and programs encourage our employees to remain focused on both the short-and long-term goals of Verenum. For example, while our cash bonus plans measure performance on an annual basis, our equity awards typically vest over a number of years, which we believe encourages our employees to focus on sustained stock price appreciation, thus limiting the potential value of excessive risk-taking. Verenum has not adopted a specific clawback or incentive compensation forfeiture policy. The compensation committee intends to continue to evaluate whether such a policy should be adopted.

Summary Compensation Table

The following table shows for the fiscal years ended December 31, 2008, December 31, 2009 and December 31, 2010 compensation awarded to or paid to, or earned by, Verenium's Chief Executive Officer, Chief Financial Officer, certain of Verenium's executive officers, and one former executive officer who departed from the Company during the fiscal year, whom Verenium refers to as "Verenium's named executive officers."

Name and Principal Position	Year	Salary (\$)	Bonus (\$)(1)	Stock	Option	Non-Equity	All Other	Total (\$)
				Awards (\$)(2)	Awards(2)	Incentive Plan Compensation (\$)(3)	Compensation (\$)(4)	
Carlos A. Riva*** Former President, Chief Executive Officer and Director	2008	\$495,000	\$208,000	\$ —	\$ 287,520	\$ —	\$ 1,143(7)	\$ 991,663
	2009	\$498,994	\$ —	\$ 114,400	\$1,453,071	\$ —	\$ 2,941(5)	\$2,069,406
	2010	\$495,000	\$ —	\$ —	\$ 617,030	\$504,900	\$ 12,486(12)	\$1,629,416
James E. Levine**** Executive Vice President and Chief Financial Officer	2008	*	*	*	*	*	*	*
	2009	\$214,438	\$ —	\$ 32,500	\$ 280,604	\$ —	\$ 641(6)	\$ 528,183
	2010	\$318,077	\$ —	\$ —	\$ 233,099	\$273,550	\$ 10,704(13)	\$ 835,430
Janet S. Roemer Executive Vice President, Chief Operating Officer	2008	**	**	**	**	**	**	**
	2009	**	**	**	**	**	**	**
	2010	\$292,116	\$ —	\$ —	\$ 170,027	\$155,000	\$ 11,406(14)	\$ 628,549
Jeffrey G. Black***** Senior Vice President, Chief Accounting Officer	2008	\$231,547	\$ —	\$ —	\$ 101,030	\$105,000(19)	\$ 1,143(7)	\$ 438,720
	2009	\$266,702	\$ —	\$ —	\$ 154,135	\$ —	\$ 16,010(9)	\$ 436,847
	2010	\$260,000	\$ —	\$ —	\$ 86,110	\$176,800	\$ 24,167(15)	\$ 547,077
Mary Ellen Jones***** Former Senior Vice President, Human Resources	2008	**	**	**	**	**	**	**
	2009	**	**	**	**	**	**	**
	2010	\$236,250	\$ —	\$ —	\$ 75,689	\$ 94,500	\$ 12,478(16)	\$ 418,917
Former Officers:								
William H. Baum***** Executive Vice President, Business Development	2008	\$372,885	\$100,000	\$ —	\$ 131,468	\$ —	\$ 1,143(7)	\$ 605,496
	2009	\$372,885	\$ —	\$ —	\$ 77,255	\$ —	\$ 10,362(10)	\$ 460,502
	2010	\$316,988	\$ —	\$ —	\$ —	\$251,683	\$132,592(17)	\$ 701,263
Gerald M. Haines II***** Executive Vice President, Chief Legal Officer, and Secretary	2008	\$270,455	\$100,000	\$ 55,000	\$ 770,098	\$ —	\$ 1,093(8)	\$1,196,646
	2009	\$311,279	\$ —	\$ 55,000	\$ 272,434	\$ —	\$ 1,331(11)	\$ 640,044
	2010	\$179,588	\$ —	\$ —	\$ —	\$108,500	\$237,935(18)	\$ 526,023

* Mr. Levine joined the Company as Executive Vice President, Chief Financial Officer in April 2009.

** Prior year compensation data for 2008 and 2009 has not been provided for Ms. Roemer and Ms. Jones, as they were not named executive officers until 2010.

*** Mr. Riva retired as a President, Chief Executive Officer and Director effective March 31, 2011.

**** Mr. Levine was promoted to President, Chief Executive Officer and Director effective March 31, 2011.

***** Mr. Black was promoted to Senior Vice President, Chief Financial Officer effective March 31, 2011.

***** Ms. Jones resigned as an executive officer effective March 31, 2011.

***** Mr. Baum resigned as an executive officer effective September 2, 2010.

***** Mr. Haines resigned as an executive officer effective June 30, 2010.

(1) Unless otherwise noted amounts for 2008 include amounts earned in 2008 but paid in 2009.

(2) Amounts relate to stock awards and stock option awards, as applicable, and reflect the aggregate full grant date fair value calculated in accordance with FASB ASC Topic 718 for stock awards granted during the fiscal year. Pursuant to SEC rules, the amounts shown here exclude the impact of estimated forfeitures related to service-based vesting conditions. See Note 9 of the Notes to the Consolidated Financial Statements included in our Annual Report on Form 10-K filed on March 7, 2011, and incorporated by reference into this proxy statement, for a discussion of the relevant assumptions used to determine the valuation of our stock awards and option awards for accounting purposes in 2008, 2009, and 2010. See the "Grants of Plan-Based Awards Table" for information on awards made in 2009 and 2010.

- (3) Amounts for 2010 include incentive plan amounts earned in 2010 and paid in 2010 in conjunction with the close of the sale of our ligno-cellulosic business, and incentive plan amounts earned in 2010 and paid in 2011.
- (4) Amounts include long-term disability and group term life insurance benefits awarded to each executive officer, and, as applicable, payment for tax preparation fees, payment of legal fees, post-employment salary continuation, and any applicable vacation payouts.
- (5) Amount includes \$2,322 for group term life insurance benefits and \$619 for long-term disability.
- (6) Amount includes \$318 for group term life insurance benefits and \$323 for long-term disability.
- (7) Amounts for Messrs. Riva, Black and Baum include \$744 for group term life insurance and \$399 for long term disability.
- (8) Amounts for Mr. Haines include \$744 for group term life insurance and \$349 for long term disability.
- (9) Amount includes \$592 for group term life insurance benefits, \$418 for long-term disability, and \$15,000 for vacation payout.
- (10) Amount includes \$3,564 for group term life insurance benefits, \$573 for long-term disability and \$6,225 for tax preparation fees.
- (11) Amount includes \$841 for group term life insurance benefits and \$490 for long-term disability.
- (12) Amount includes \$2,322 for group term life insurance benefits, \$462 for long-term disability and \$9,702 for 401k match.
- (13) Amount includes \$540 for group term life insurance benefits, \$462 for long-term disability and \$9,702 for 401k match.
- (14) Amount includes \$1,242 for group term life insurance benefits, \$462 for long-term disability and \$9,702 for 401k match.
- (15) Amount includes \$540 for group term life insurance benefits, \$478 for long-term disability, \$17,750 for vacation payout and \$5,399 for 401k match.
- (16) Amount includes \$2,322 for group term life insurance benefits, \$455 for long-term disability and \$9,702 for 401k match.
- (17) Amount includes \$4,748 for group term life insurance benefits, \$351 for long-term disability, \$4,738 for tax preparation fees, \$ 9,702 for 401k match and \$113,053 related to post employment salary continuation.
- (18) Amount includes \$467 for group term life insurance benefits, \$240 for long-term disability, \$4,728 for 401k match and \$232,500 related to a post termination bonus.
- (19) In connection with his appointment as interim Chief Financial Officer, the compensation committee approved a payout of Mr. Black's target bonus for 2008, representing approximately 40% of his base salary as of December 31, 2008.

Employment Agreements

Post-Employment Compensation

The amount of compensation payable to each named executive officer upon voluntary termination, involuntary termination without cause, termination following a change of control or termination in the event of disability or death of the executive is shown below.

Payments made upon termination

Regardless of the manner in which a NEO employment terminates, the named executive officer is entitled to receive amounts earned during the term of employment, including salary and unused vacation pay.

Payments made in 2010 under Employment Arrangements

We made the following payments in 2010 to a former executive officer pursuant to his employment agreement.

	<u>Salary Continuation (\$)</u>	<u>Bonus (\$)</u>
William H. Baum	\$113,053	\$37,873

William H. Baum

Effective September 3, 2010, Mr. Baum’s employment as an officer of Verenium ended. Under Verenium’s employment agreement with Mr. Baum dated September 24, 2008, Verenium will pay Mr. Baum’s base salary and health insurance premiums for 12 months from the termination of his consulting term. From September 4, 2010 to December 31, 2010, Verenium paid to Mr. Baum approximately \$113,053 in salary continuation severance compensation and \$37,873 for bonus with \$85,213 to be paid in 2011 for 2010 bonus. Under the terms of Mr. Baum’s agreement, Verenium allowed for the acceleration of vesting of all outstanding options as if he had remained employed for an addition period of 24 months. A total of 12,753 options accelerated vesting pursuant to this agreement.

Payments made under Post-Termination Services Agreements

Effective June 30, 2010 Mr. Haines’ employment as an officer of Verenium ended. Mr. Haines was not entitled to severance benefits under the terms of his employment agreement. However, in accordance with the terms of his separation agreement, in September 2010 the compensation committee approved a payment to Mr. Haines of \$232,500 in consideration for his provision of consulting services to the Company following his termination of employment, which were essential for completion of the sale of our lingo-cellulosic biofuels business.

Potential Payments Upon Termination or Change in Control

Under Verenium’s employment agreements with Riva, Roemer and Jones dated September 24, 2008, Mr. Black dated December 17, 2008 and Mr. Levine dated April 24, 2009, if Verenium terminates the employment of said executives at any time without cause, as defined in the employment agreement, the terminated individual is entitled to receive, in addition to any earned but unpaid bonus for the most recently completed year, severance compensation equal to twelve months of that individual’s then-current base salary, plus the higher of his eligible bonus for the year in which the termination occurs, or the average bonus amount paid to him in the two fiscal years prior to termination, in each case, pro-rated by the number of days employed in the calendar year of the termination. This severance compensation will be paid in equal installments over a period of twelve months. Verenium will continue to pay the individual’s employee benefits for a period of twelve months, provided, however, that payments will cease upon voluntarily enrollment in an alternative health insurance plan. In addition, the agreements provide for the acceleration of stock option and stock award vesting as of the termination date as if he had remained employed for an additional period of twenty-four months (which may include conversion of performance-based options into time-based options with accelerated vesting as described). The agreements also provide for the acceleration of stock option and stock award vesting upon a change in control of Verenium, as defined in the agreements.

As announced on February 25, 2011, Mr. Riva retired from the Company effective March 31, 2011. In accordance with his employment agreement as noted above, he will be receiving the following severance benefits, including a pro-rated bonus amount for 2011. Under the terms of Mr. Riva’s agreement, Verenium allowed for the acceleration of vesting of all outstanding options as if he had remained employed for an additional period of 24 months. A total of 177,604 options accelerated vesting pursuant to this agreement.

	<u>Salary Continuation (\$)</u>	<u>Bonus (\$)</u>	<u>Benefit Payments (\$)</u>
Carlos A. Riva	\$495,000	\$73,233	\$29,780

On March 31, 2011, Ms. Jones employment ended. In accordance with her employment agreement as noted above, upon the effective date of March 31, 2011, she will be receiving the following severance benefits, including a pro-rated bonus amount for 2011. Under the terms of Ms. Jones' agreement, Verenum allowed for the acceleration of vesting of all outstanding options as if she had remained employed for an additional period of 24 months. A total of 29,406 options accelerated vesting pursuant to this agreement.

	<u>Salary Continuation (\$)</u>	<u>Bonus (\$)</u>	<u>Benefit Payments (\$)</u>
Mary Ellen Jones	\$236,250	\$23,294	\$1,159

Assuming that each of Levine, Roemer, and Black was terminated without cause on December 31, 2010, each would have been entitled to receive approximate severance compensation as set forth below (amounts include cash severance compensation, twelve months of employee benefits payments, and an assumed 2011 bonus amount for each individual equal to 2010 bonus amount):

	<u>Severance Compensation</u>
James E. Levine	\$495,000
Jeffrey G. Black	\$364,000
Janet S. Roemer	\$465,000

Further, Messers Levine and Black would have option accelerations of 67,185 and 28,505 options and Ms. Roemer would have an option acceleration of 49,731 options assuming termination without cause on December 31, 2010.

Grants of Plan-Based Awards

<u>Name</u>	<u>Grant Date</u>	<u>All Other Option Awards: Number of Securities Underlying Options(#)</u>	<u>Exercise or Base Price of Option Awards (\$/sh)</u>	<u>Grant Date Fair Value of Stock and Option Awards \$(1)</u>
Carlos A. Riva	9/7/2010	225,000(2)	\$3.04	\$617,031
James E. Levine	9/7/2010	85,000(2)	\$3.04	\$233,099
Janet S. Roemer	9/7/2010	62,000(2)	\$3.04	\$170,027
Jeffrey G. Black	9/7/2010	31,400(2)	\$3.04	\$ 86,110
Mary Ellen Jones	9/7/2010	27,600(2)	\$3.04	\$ 75,689

- (1) Amounts represent the full grant date fair value of restricted stock and stock option awards calculated in accordance with FASB ASC Topic 718 granted to the named executive officers in 2010. The fair value for these awards was calculated using the closing price of Verenum's common stock on the grant date. The full grant date fair value is the amount that Verenum would expense in its financial statements over the award's vesting schedule. See Note 9 of the Notes to the Consolidated Financial Statements included in our Annual Report on Form 10-K filed on March 7, 2011, and incorporated by reference into this proxy statement, for a discussion of the relevant assumptions used to determine the valuation of stock awards for accounting purposes. These amounts reflect the Company's accounting expense for these awards and do not correspond to the actual amounts that may be recognized by the named executive officers.
- (2) Stock option awards expire on the 10th anniversary of the grant date. The vesting schedule for options granted under these plans vest as follows: on the first anniversary of the grant date, 25% of the shares subject to stock option awards vests, with the remaining 75% of shares to vest in equal installments over the next three years on a quarterly basis.

Outstanding Equity Awards at December 31, 2010

The following table sets forth certain information regarding outstanding equity awards held by the named executive officers at December 31, 2010.

Name	Option Awards(1)(2)				Stock Awards(1)			
	Number of Securities Underlying Unexercised Options(Exercisable)	Number of Securities Underlying Unexercised Options(Not Exercisable)	Option Exercise Price (\$)/Share	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 (\$)(3)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights that Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested (\$)
Carlos A. Riva	47,481	40,821	\$3.85	11/12/2019	—	—	—	—
	7,500	22,500	\$4.12	12/11/2019	—	—	—	—
	—	225,000	\$3.04	9/7/2020	—	—	—	—
James E. Levine	4,948	15,885	\$3.85	11/12/2019	1,040	\$3,328	—	—
	5,000	15,000	\$4.12	12/11/2019	—	—	—	—
	—	85,000	\$3.04	9/7/2020	—	—	—	—
Janet S. Roemer	10,339	12,575	\$3.85	11/12/2019	—	—	—	—
	3,750	11,250	\$4.12	12/11/2019	—	—	—	—
	—	62,000	\$3.04	9/7/2020	—	—	—	—
Jeffrey G. Black	8,312	7,662	\$3.85	11/12/2019	—	—	—	—
	2,500	7,500	\$4.12	12/11/2019	—	—	—	—
	—	31,400	\$3.04	9/7/2020	—	—	—	—
Mary Ellen Jones	10,082	7,276	\$3.85	11/12/2019	—	—	—	—
	3,750	11,250	\$4.12	12/11/2019	—	—	—	—
	—	27,600	\$3.04	9/7/2020	—	—	—	—
Former Officers:								
William H. Baum	—	—	—	—	—	—	—	—
Gerald M. Haines, II . . .	—	—	—	—	—	—	—	—

- (1) Stock option awards and stock awards were granted under the 1997 Equity Incentive Plan, the 2007 Equity Incentive Plan and the 2010 Equity Incentive Plan.
- (2) Except as disclosed, stock option awards expire on the 10th anniversary of the grant date. The vesting schedule for options granted under these plans vest as follows: on the first anniversary of the grant date, 25% of the shares subject to stock option awards vests, with the remaining 75% of shares to vest in equal installments over the next three years on a quarterly basis, except for grants given on November 12, 2010 which were part of the 2009 stock option repricing program.
- (3) The values in this column are based on the \$3.20 per share closing sales price of Verenum’s common stock on the NASDAQ Stock Market on December 31, 2010, the last trading day of 2010.

Option Exercises and Stock Vested

The following table sets forth certain information regarding option exercises and stock vested during the year ended December 31, 2010.

<u>Name</u>	<u>Option Awards</u>		<u>Stock Awards</u>	
	<u>Number of Shares Acquired on Exercise (#)</u>	<u>Value Realized on Exercise (\$)</u>	<u>Number of Shares Acquired on Vesting (#)</u>	<u>Value Realized on Vesting (\$)</u>
Carlos A. Riva	—	—	—	—
James E. Levine	—	—	2,084	\$8,180
Janet S. Roemer	—	—	—	—
Jeffrey G. Black	—	—	—	—
Mary Ellen Jones	—	—	—	—
Former Officers:				
William H. Baum	—	—	410	\$2,210
Gerald M. Haines, II	—	—	—	—

Pension Benefits

None of Verenum’s named executive officers participate in or have account balances in qualified or non-qualified defined benefit plans sponsored by Verenum. Verenum’s compensation committee may elect to adopt qualified or non-qualified benefit plans in the future if it determines that doing so is in Verenum’s best interests.

Nonqualified Deferred Compensation

None of Verenum’s named executive officers participate in or have account balances in nonqualified defined contribution plans or other nonqualified deferred compensation plans maintained by Verenum. Verenum’s compensation committee may elect to provide Verenum’s officers and other employees with non-qualified defined contribution or other nonqualified deferred compensation benefits in the future if it determines that doing so is in Verenum’s best interests.

Compensation Committee Report*

The compensation committee has reviewed and discussed with management the Compensation Discussion and Analysis, or CD&A, contained in this proxy statement and in Verenum’s Annual Report on Form 10-K for the year ended December 31, 2010 filed on March 7, 2011. Based on this review and discussion, the compensation committee has recommended to the board of directors that the CD&A be included in Verenum’s Annual Report on Form 10-K for the year ended December 31, 2010.

Compensation Committee:

- Mr. Peter Johnson (Committee Chair)
- Dr. James H. Cavanaugh
- Dr. Fernand Kaufmann
- Mr. Joshua Ruch

* The material in this report is not “soliciting material,” is not deemed “filed” with the Securities and Exchange Commission, and is not to be incorporated by reference into any filing of Verenum under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date hereof and irrespective of any incorporation language contained in such filing.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The following includes a summary of transactions since January 1, 2009 to which Verenium has been a party, in which the amount involved in the transaction exceeded \$120,000, and in which any of its directors, executive officers or beneficial owners of more than five percent of Verenium's common stock had or will have a direct or indirect material interest, other than equity and other compensation, termination, change-in-control and other arrangements, which are described under "Executive Compensation." Verenium believes the terms obtained or consideration that it paid or received, as applicable, in connection with the transactions described below were comparable to terms available or the amounts that would be paid or received, as applicable, in arm's-length transactions.

Policies and Procedures for Related-Person Transactions

Under Verenium's amended audit committee charter, all "related-persons transactions" must receive the approval of its audit committee. In accordance with the SEC requirements, a "related-person transaction" is a transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which Verenium and any "related person" are participants involving an amount that exceeds \$120,000. A related person is any executive officer, director, or a holder of more than five percent of Verenium's common stock, including any of their immediate family members, and any entity owned or controlled by such persons.

In considering related-person transactions, Verenium's audit committee takes into account the relevant available facts and circumstances including, but not limited to (i) the risks, costs and benefits to Verenium, (ii) the impact on a director's independence in the event the related person is a director, immediate family member of a director or an entity with which a director is affiliated, (iii) the terms of the transaction, (iv) the availability of other sources for comparable services or products and (v) the terms available to or from, as the case may be, unrelated third parties or to or from Verenium's employees generally. In the event a director has an interest in the proposed transaction, Verenium's audit committee requires the director to excuse himself or herself from the deliberations and approval. In determining whether to approve, ratify or reject a related-person transaction, Verenium's audit committee considers, in light of known circumstances, whether the transaction is in, or is not inconsistent with, the best interests of Verenium and its stockholders, as the audit committee determines in the good faith exercise of its discretion.

Independence of the Board of Directors

As required under the listing standards of the NASDAQ Stock Market, a majority of the members of a listed company's board of directors must qualify as "independent," as affirmatively determined by the board of directors. After review of all relevant transactions or relationships between each director, or any of his or her family members, and Verenium, its senior management and its independent registered public accounting firm, the Verenium board of directors affirmatively has determined that all of its directors are independent directors within the meaning of the applicable NASDAQ Stock Market listing standards, except for Mr. Riva, who is Verenium's chief executive officer.

Voting and Lock-up Agreements

Verenium entered into lock-up agreements with certain of its directors and executive officers in connection with the Company's October 2009 sale of common stock and warrants to purchase common stock. The lock-up agreements expired on January 4, 2010.

Indemnification Agreements

As permitted by Delaware law, Verenium has entered into indemnity agreements with its directors and certain executive officers. Under these indemnity agreements, Verenium must indemnify its directors and executive officers against expenses, judgments, fines, settlements and other amounts incurred (including

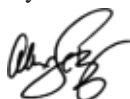
expenses of a derivative action) in connection with any proceeding, whether actual or threatened, in the event such director or officer has been made a party to any proceedings by reason of the fact that such person is or was a director or an executive officer of Verenium or any of its affiliated enterprises. Verenium's obligation to indemnify its directors and officers only apply if such director or officer acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, the best interests of Verenium and, with respect to any criminal proceeding, had no reasonable cause to believe his or her conduct was unlawful. The indemnification agreements also set forth certain procedures that will apply in the event of a claim for indemnification by any of Verenium's directors or executive officers.

Verenium also maintains directors' and officers' liability insurance for the benefit of its directors and certain of its officers.

OTHER MATTERS

The board of directors knows of no other matters that will be presented for consideration at the annual meeting. If any other matters are properly brought before the meeting, it is the intention of the persons named in the accompanying proxy to vote on such matters in accordance with their best judgment.

By Order of the Board of Directors



Alexander A. Fitzpatrick
Senior Vice President, General Counsel and Secretary

April 22, 2011

A copy of Verenum's Annual Report on Form 10-K for the fiscal year ended December 31, 2010 is available without charge upon written request to:

**Investor Relations
Verenum Corporation
4955 Directors Place
San Diego, California 92121**

Note 9 of the Notes to the Consolidated Financial Statements, included in our Annual Report on Form 10-K filed on March 7, 2011, is incorporated by reference into this proxy statement.

**VERENIUM CORPORATION
PROXY SOLICITED BY THE BOARD OF DIRECTORS
FOR THE ANNUAL MEETING OF STOCKHOLDERS
TO BE HELD ON May 25, 2011**

The undersigned hereby appoints Jeffrey G. Black and Alexander A. Fitzpatrick, and each of them, as proxies for the undersigned, with full power of substitution and revocation, to vote all of the shares of stock of Verenum Corporation that the undersigned may be entitled to vote at the Annual Meeting of Stockholders of Verenum Corporation to be held at L' Auberge Del Mar Hotel, 1540 Camino Del Mar, Del Mar, California 92014 on Wednesday, May 25, 2011 at 10:30 a.m. (local time), and at any and all postponements and adjournments thereof, with all powers that the undersigned would possess if personally present, on the following matters and in accordance with the following instructions, with discretionary authority as to any other business that may properly come before the meeting.

This proxy, when properly executed and returned, will be voted in the manner directed herein. If no direction is indicated, this proxy will be voted FOR all nominees listed in Proposal 1 and FOR Proposal 2, as more specifically described in the proxy statement. Whether or not direction is made, this proxy, when properly executed and returned, will be voted in the discretion of the proxy holders upon such other business as may properly come before the Annual Meeting of Stockholders or any adjournment or postponement thereof.

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2. Call the toll-free number 1-800-PROXIES (1-800-776-9437). For stockholders residing outside the United States call collect on a touch-tone phone 1-718-921-8500.
3. Enter your 14-digit Voter Control Number located on your Proxy Card above your name.
4. Follow the recorded instructions.

GRANT A PROXY TO VOTE BY INTERNET

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1. Read the accompanying Proxy Statement/Prospectus and Proxy Card.
2. Go to the Website: <http://www.proxyvote.com>
3. Enter your **12**-digit Voter Control Number located on your Proxy Card above your name.
4. Follow the instructions provided.

DO NOT RETURN YOUR PROXY CARD IF YOU ARE VOTING BY TELEPHONE OR INTERNET.

-----**detach here**-----

The Board of Directors recommends a vote “FOR” the nominees for director listed below.

To elect the three directors named below, to hold office until the 2014 Annual Meeting of STOCKHOLDERS.

- FOR** all nominees listed below (except as marked to the contrary below). **WITHHOLD AUTHORITY** to vote for all nominees listed below.

Nominees: Mr. Peter Johnson, Ms. Cheryl A. Wenzinger, Mr. Michael Zak

To withhold authority to vote for any nominee(s) write the name(s) of such nominee(s) below

The Board of Directors recommends a vote FOR Proposal 2.

PROPOSAL 2: To ratify selection by The Audit Committee of the Board of Directors of **ERNST & YOUNG LLP** as independent registered public accounting firm of the Company for its fiscal year ending **12/31/2011**.

FOR **AGAINST** **ABSTAIN**

Dated _____

SIGNATURE(S)

Please sign exactly as your name appears hereon. If the stock is registered in the names of two or more persons, each should sign. Executors, administrators, trustees, guardians and attorneys-in-fact should add their titles. If signer is a corporation, please give full corporate name and have a duly authorized officer sign, stating title. If signer is a partnership, please sign in partnership name by authorized person.

Please vote, date and promptly return this proxy card in the enclosed return envelope which is postage prepaid if mailed in the United States.