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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 14A

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

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

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

Emergent BioSolutions Inc.

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
 - Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.
 - (1) Title of each class of securities to which transaction applies:

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

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

 - (4) Proposed maximum aggregate value of transaction:

 - (5) Total fee paid:

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

 - (2) Form, Schedule or Registration Statement No.:

 - (3) Filing Party:

 - (4) Date Filed:

-



April 12, 2019

Dear Fellow Stockholders:

You are cordially invited to attend the Emergent BioSolutions Inc. 2019 annual meeting of stockholders to be held on May 23, 2019, at 9:00 a.m., Eastern time, at the Gaithersburg Marriott Washingtonian Center, 9751 Washingtonian Boulevard, Gaithersburg, Maryland 20878. Details about the meeting, nominees for the Board of Directors and other matters to be acted on are included in the notice of the 2019 annual meeting and proxy statement that follow.

We hope you plan to attend the annual meeting. Please vote your shares, whether or not you plan to attend the meeting, by proxy using one of the methods described in our proxy statement or the Notice of Internet Availability of Proxy Materials. Your proxy may be revoked at any time before it is exercised as explained in our proxy statement.

If you plan to attend the meeting, please bring photo identification for admission. In addition, if your shares are held in the name of a broker, bank or other nominee, please bring with you a proxy, letter or account statement from your broker, bank or nominee confirming your ownership of Emergent BioSolutions Inc. stock so that you can be admitted to the meeting. If your shares are held of record by a broker, bank or other nominee and you wish to vote in person at the meeting, you must obtain a legal proxy from your broker, bank or other nominee conferring to you its rights to vote the shares at the meeting.

On behalf of the Board of Directors and management, it is my pleasure to express our appreciation for your support.

Sincerely,

A handwritten signature in black ink that reads "F. El-Hibri".

Fuad El-Hibri

Executive Chairman of the Board of Directors

YOUR VOTE IS IMPORTANT.

PLEASE TAKE TIME TO VOTE AS PROMPTLY AS POSSIBLE.

EMERGENT BIOSOLUTIONS INC.
400 PROFESSIONAL DRIVE, SUITE 400
GAITHERSBURG, MARYLAND 20879

NOTICE OF 2019 ANNUAL MEETING OF STOCKHOLDERS
To Be Held On May 23, 2019

To Our Stockholders:

The 2019 Annual Meeting of Stockholders of Emergent BioSolutions Inc. will be held on May 23, 2019, at 9:00 a.m., Eastern time, at the Gaithersburg Marriott Washingtonian Center, 9751 Washingtonian Boulevard, Gaithersburg, Maryland 20878. The 2019 annual meeting is being held for the following purposes, which are more fully described in the proxy statement that accompanies this notice:

1. To elect three Class I directors to hold office for a term expiring at our 2022 annual meeting of stockholders and one Class II director for a term expiring at our 2020 annual meeting of stockholders, each to serve until their respective successors are duly elected and qualified;
2. To ratify the appointment by the audit committee of Ernst & Young LLP as our Independent Registered Public Accounting Firm for the fiscal year ending December 31, 2019;
3. To hold, on an advisory basis, a vote to approve executive compensation; and
4. To act upon any other matter that may properly come before the meeting or any adjournment or postponement of the meeting.

As of the date of this notice, the company has received no notice of any matters, other than those set forth above, that may properly be presented at the 2019 annual meeting. If any other matters are properly presented for consideration at the meeting, the persons named as proxies on the enclosed proxy card, or their duly constituted substitutes, will be deemed authorized to vote the shares represented by proxy or otherwise act on those matters in accordance with their judgment.

The Board of Directors recommends that you vote FOR the election of each of the Class I director nominees and the Class II director nominee, and FOR Proposals 2 and 3. The close of business on March 28, 2019, has been established as the record date for determining those stockholders entitled to receive notice of and to vote at the 2019 annual meeting or any adjournment or postponement thereof.

Your vote is very important. Please read the proxy statement and then, whether or not you expect to attend the annual meeting, and no matter how many shares you own, vote your shares as promptly as possible. You can vote by proxy over the internet, by telephone or by mail by following the instructions provided in the proxy statement and on the proxy card. Submitting your proxy now will help ensure a quorum and avoid additional proxy solicitation costs. If you attend the meeting, you may vote in person, even if you have previously submitted a proxy. However, if your shares are held of record by a broker, bank or other nominee and you wish to vote in person at the meeting, you must obtain a legal proxy from your broker, bank or other nominee conferring to you its rights to vote the shares at the meeting. **If you have any questions about voting your shares or attending the 2019 annual meeting, please contact our Investor Relations department at (240) 631-3200.**

You may revoke your proxy at any time before the vote is taken by delivering to our Corporate Secretary a written revocation, submitting a proxy with a later date or by voting your shares in person at the meeting, in which case your prior proxy will be disregarded.

By Order of the Board of Directors,



Atul Saran
*Executive Vice President, Corporate Development,
General Counsel and Corporate Secretary*

Gaithersburg, Maryland
April 12, 2019

**IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE
2019 ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON MAY 23, 2019**

The company's proxy statement for the 2019 annual meeting of stockholders and annual report on Form 10-K for the fiscal year ended December 31, 2018, are available at <http://materials.proxyvote.com/29089Q>.

**WHETHER OR NOT YOU PLAN TO ATTEND THE MEETING, YOUR VOTE IS IMPORTANT.
IN ORDER TO ENSURE THE REPRESENTATION OF YOUR SHARES AT THE 2019 ANNUAL
MEETING, PLEASE VOTE BY PROXY AS PROMPTLY AS POSSIBLE.**

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**EMERGENT BIOSOLUTIONS INC.
400 Professional Drive, Suite 400
Gaithersburg, Maryland 20879**

**PROXY STATEMENT
2019 Annual Meeting of Stockholders**

This proxy statement and the accompanying proxy card are being furnished to you by the Board of Directors of Emergent BioSolutions Inc. (the "Board" or "Board of Directors") to solicit your proxy to vote your shares at our 2019 annual meeting of stockholders and at any adjournment or postponement of the meeting. The annual meeting will be held on May 23, 2019, at 9:00 a.m., Eastern time, at the Gaithersburg Marriott Washingtonian Center, 9751 Washingtonian Boulevard, Gaithersburg, Maryland 20878. We are first furnishing the proxy materials to our stockholders on or about April 12, 2019.

QUESTIONS AND ANSWERS ABOUT THE ANNUAL MEETING

Why am I receiving this proxy statement?

You are receiving this proxy statement from us because you owned shares of the company's common stock as of March 28, 2019, the record date for the annual meeting. The Board has made these materials available to you in connection with the Board's solicitation of proxies for use at our annual meeting.

This proxy statement describes matters on which you may vote and provides you with other important information so that you can make informed decisions. You are requested to vote on each of the proposals described in this proxy statement and are invited to attend the annual meeting.

What does it mean to vote by proxy?

It means that you give someone else the right to vote your shares in accordance with your instructions. In this way, you ensure that your vote will be counted even if you are unable to attend the annual meeting. When you submit your proxy by internet, by telephone or by mail, you appoint each of Robert G. Kramer, Sr. our president and chief executive officer, Richard S. Lindahl, our executive vice president, chief financial officer and treasurer, and Atul Saran, our executive vice president, corporate development, general counsel and corporate secretary, or their respective substitutes or nominees, as your representatives — your "proxies" — at the meeting to vote your shares in accordance with your instructions. If you give your proxy but do not include specific instructions on how to vote, the individuals named as proxies will vote your shares as the Board recommends, and may vote in their discretion with respect to any other matters properly presented at the annual meeting.

Who is entitled to vote at the annual meeting?

Holders of the company's common stock as of the close of business on the record date, March 28, 2019, may vote at the annual meeting, either by proxy or in person. As of the close of business on March 28, 2019, there were 51,382,454 shares of the company's common stock outstanding and entitled to vote and held by 30 holders of record. The common stock is the only authorized voting security of the

company, and each share of common stock is entitled to one vote on each matter properly brought before the annual meeting.

What are the matters to be voted on and what is the Board's recommendation and the applicable voting standard?

Proposal	Voting Choices and Board Recommendation	Voting Standard	Effect of Abstentions	Effect of Broker Non-Votes
1. Election of Directors	<ul style="list-style-type: none"> • Vote in favor of all or specific nominees; • Vote against all or specific nominees; or • Abstain from voting with respect to all or specific nominees. <p>The Board recommends a vote FOR each of the director nominees.</p>	Plurality of votes cast <i>(the nominees who receive the most votes will be the nominees elected by stockholders)</i>	None	None
2. Ratification of the appointment of Ernst & Young LLP as the company's Independent Registered Public Accounting Firm for the fiscal year ending December 31, 2019	<ul style="list-style-type: none"> • Vote in favor of the ratification; • Vote against the ratification; or • Abstain from voting on the ratification. <p>The Board recommends a vote FOR the ratification of Ernst & Young LLP as our Independent Registered Public Accounting Firm.</p>	Majority of votes cast	None	Not applicable
3. Advisory vote to approve executive compensation	<ul style="list-style-type: none"> • Vote in favor of the proposal; • Vote against the proposal; or • Abstain from voting on the proposal. <p>The Board recommends a vote FOR the advisory vote to approve executive compensation.</p>	Majority of votes cast	None	None

What is the difference between holding shares as a stockholder of record and as a beneficial owner?

You may own shares of the company's common stock in two different ways:

- *Record Ownership.* If your stock is represented by one or more stock certificates registered in your name or if you have a Direct Registration System account in your name evidencing shares held in book-entry form, then you have a stockholder account with our transfer agent, Broadridge Financial Solutions, Inc., and you are a "stockholder of record."
- *Beneficial Ownership.* If your shares are held in a brokerage account or by a bank or other nominee, those shares are held in "street name" and you are considered the "beneficial owner" of the shares. As the beneficial owner of those shares, you have the right to direct your broker, bank or other nominee how to vote your shares, and you will receive separate instructions from your broker, bank or other nominee describing how to vote your shares. You also are invited to attend the annual meeting. However, because a beneficial owner is not the stockholder of record, you may not vote these shares in person at the meeting unless you obtain a "legal proxy" from the broker, bank or other nominee that holds your shares giving you the right to vote the shares at the meeting. Note that a legal proxy from your broker, bank or other nominee is *not* the form of proxy available on www.voteproxy.com.

How can I vote my shares before the annual meeting?

Even if you plan to attend the annual meeting, we recommend that you vote before the meeting, as described below, so that your vote will be counted if you are unable to attend the annual meeting. Voting by internet or by telephone is fast and convenient and your vote is immediately confirmed. Submitting a proxy by internet, telephone or mail prior to the annual meeting will not affect your right to attend the annual meeting and vote in person.

If you hold shares in your own name as a stockholder of record, you may vote before the annual meeting:



By Internet. To vote by internet, go to <http://materials.proxyvote.com> and follow the instructions you find on this website. Your proxy will be voted according to your instructions. If you vote by internet, please do not mail in a proxy card.



By Telephone. To vote by phone, call 1-800-690-6903 (toll-free from the U.S. and Canada) and follow the instructions. If you vote by telephone, please do not mail in a proxy card.



By Mail. If you received your proxy materials by mail, you may vote by completing, signing and returning your proxy card in the enclosed postage-paid envelope.

If you vote by internet or by telephone, please do not mail in your proxy card (unless you intend for it to revoke your prior internet or telephone vote). Your internet or telephone vote will authorize the named proxies to vote your shares in the same manner as if you completed, signed and returned your proxy card. If you sign and return your proxy card or vote over the internet or by telephone but do not provide voting instructions on some or all of the proposals, your shares will be voted on all uninstructed proposals in accordance with the recommendations of the Board. **If you have any questions about voting your shares or attending the annual meeting, please contact our Investor Relations department at (240) 631-3200.**

If you hold shares in street name, your broker, bank or other nominee will provide you with materials and instructions for voting your shares. Please check with your broker, bank or other nominee and follow its voting procedures to vote your shares. Most brokers and nominees offer voting procedures by internet, telephone and mail.

If I hold shares in street name by my broker, will my broker automatically vote my shares for me?

If you hold shares through an account with a bank or broker, the voting of the shares by the bank or broker when you do not provide voting instructions is governed by the rules of the New York Stock Exchange (the "NYSE"). These rules allow banks and brokers to vote shares in their discretion on "routine" matters for which their customers do not provide voting instructions. On matters considered "non-routine," banks and brokers may not vote shares without your instruction.

What is a "broker non-vote" and how would it affect the vote?

Shares that banks and brokers are not authorized to vote are referred to as "broker non-votes." The ratification of the company's independent registered public accounting firm is considered a routine matter. Accordingly, banks and brokers may vote shares on this proposal without your instructions, and there will be no broker non-votes with respect to this proposal.

All other proposals are considered to be non-routine, and banks and brokers therefore cannot vote shares on those proposals without your instructions. Please note that if you want your vote to be counted on those proposals, including the election of directors, you must instruct your bank or broker how to vote your shares. If you do not provide voting instructions, no votes will be cast on your behalf with respect to those proposals.

Broker non-votes will be counted for purposes of establishing a quorum but will not affect the outcome of the vote on any proposal.

What does it mean if I receive more than one proxy card from the company?

It means that you have more than one account for your shares. Please vote by internet or telephone using each of the identification numbers, or complete and mail all proxy cards to ensure that all of your shares are voted.

What is "householding" and how does it affect me?

The Securities and Exchange Commission ("SEC") has adopted rules that permit companies and intermediaries, such as brokers, to satisfy delivery requirements for proxy statements with respect to two or more stockholders sharing the same address by delivering a single Notice of Internet Availability of Proxy Materials or proxy statement and annual report addressed to those stockholders. This process, commonly referred to as "householding," potentially provides extra convenience for stockholders and cost savings for companies. Because we utilize the "householding" rules for proxy materials, stockholders who share the same address generally will receive only one copy of the Notice of Internet Availability of Proxy Materials or proxy statement and annual report, unless we receive contrary instructions from any stockholder at that address. If you prefer to receive multiple copies of the Notice of Internet Availability of Proxy Materials or proxy statement and annual report at the same address, additional copies will be provided to you promptly upon request. If you are a stockholder of record, you may obtain additional copies upon written or oral request to Emergent BioSolutions Inc., Attn: Investor Relations, 400 Professional Drive, Suite 400, Gaithersburg, Maryland 20879; Telephone: (240) 631-3200. Eligible stockholders of record receiving multiple copies of the Notice of Internet Availability of Proxy Materials or proxy statement and annual report can request householding by contacting us in the same manner.

If you are a beneficial owner and hold your shares in a brokerage or custody account, you can request additional copies of the Notice of Internet Availability of Proxy Materials or proxy statement and annual report or you can request householding by notifying your broker, bank or other nominee.

Can I vote in person at the annual meeting?

Yes. If you hold shares in your own name as a stockholder of record, you may attend the annual meeting and cast your vote at the meeting by properly completing and submitting a ballot at the annual meeting.

If you hold shares in street name, you must first obtain a "legal proxy" from your broker, bank or other nominee and submit that "legal proxy" along with a properly completed ballot at the meeting. Under a "legal proxy," the broker, bank or other nominee confers to you all of its rights as a stockholder of record to grant proxies or to vote at the meeting. Please note that if you request a "legal proxy," any previously provided instructions will be cancelled and your shares will not be voted unless you attend the meeting and vote in person or legally appoint another proxy to vote on your behalf.

What do I need to bring to be admitted to the annual meeting?

All stockholders must present a form of personal photo identification in order to be admitted to the meeting. In addition, if your shares are held in the name of your broker, bank or other nominee and you wish to attend the annual meeting, you must bring an account statement or letter from the broker, bank or other nominee indicating your share ownership.

How can I change my vote or revoke my proxy?

If you hold shares in your own name as a stockholder of record, you may change your vote or revoke your proxy at any time before voting begins by:

- Notifying our Corporate Secretary in writing that you are revoking your proxy;
- Delivering another proxy (either by internet, telephone or mail) that is dated after the proxy you wish to revoke; or
- Attending the annual meeting and voting in person by properly completing and submitting a ballot (attendance at the meeting, in and of itself, will not cause your previously granted proxy to be revoked).

Any written notice of revocation should be delivered to: Emergent BioSolutions Inc., 400 Professional Drive, Suite 400, Gaithersburg, Maryland 20879, Attention: Atul Saran, Corporate Secretary. Alternatively, you may hand deliver a written revocation notice, or a later dated proxy, to the Corporate Secretary at the annual meeting before the voting begins.

If your shares are held in street name, please check with your broker, bank or other nominee and follow the procedures your broker, bank or other nominee provides if you wish to change your vote with respect to those shares.

What is the "quorum" for the annual meeting and what happens if a quorum is not present?

In order to conduct business at the annual meeting, the holders of at least a majority of the total number of shares of the company's common stock issued and outstanding and entitled to vote as of the March 28, 2019 record date, or 25,691,228 shares, must be present in person or represented by proxy. This requirement is called a "quorum." If you vote by internet or by telephone, or submit a properly executed proxy card, your shares will be included for purposes of determining the existence of a quorum. Proxies marked "abstain" and "broker non-votes" also will be counted in determining the presence of a quorum. If the shares present in person or represented by proxy at the annual meeting are not sufficient to constitute a quorum, the annual meeting may be adjourned to a different time and place to permit further solicitations of proxies sufficient to constitute a quorum.

What is an "abstention" and how would it affect the vote?

An "abstention" occurs when a stockholder submits a proxy with explicit instructions to decline to vote regarding a particular matter. Abstentions are counted as present for purposes of determining a quorum. As a general matter, an abstention with respect to the election of directors is neither a vote cast "for" a nominee nor a vote cast "against" the nominee and, therefore, will have no effect on the outcome of the vote. Because an abstention is generally not considered to be a vote "cast" for a particular matter, it will have no effect on the ratification of the appointment of Ernst & Young LLP as our Independent Registered Public Accounting Firm or the advisory vote on the compensation of our named executive officers.

Does the company offer an opportunity to receive future proxy materials electronically?

Yes. If you vote on the internet, simply follow the prompts for enrolling in electronic proxy delivery service. This will reduce our printing and postage costs, as well as the number of paper documents you will receive.

If you are a stockholder of record, you may enroll in this service at the time you vote your proxy or at any time after the annual meeting and can read additional information about this option and request electronic delivery by going to www.proxyvote.com. If you hold shares in street name, please contact your broker, bank or other nominee to enroll for electronic proxy delivery.

Who will conduct the proxy solicitation and who will bear the cost?

The costs of soliciting proxies will be borne by us. The solicitation is being made primarily through the mail and electronic mail, but our directors, officers and employees may also engage in the solicitation of proxies in person, by telephone, electronic transmission or by other means. No compensation will be paid by us in connection with the solicitation of proxies, except that we may reimburse brokers, banks, custodians, nominees and other record holders for their reasonable out-of-pocket expenses in forwarding proxy materials to beneficial owners.

Who will count the votes?

Broadridge Financial Solutions, Inc. will tabulate the votes cast by internet, telephone and mail. Brian Millard, Vice President, Corporate Controller, Finance and Administration, will tabulate any votes cast at the annual meeting and will act as inspector of election to certify the results.

Where can I find the voting results of the meeting?

We will publish the voting results in a Form 8-K filed with the SEC within four business days after the annual meeting. You can read or print a copy of that report by going to either the company's website at www.emergentbiosolutions.com under the section "Investors — SEC Filings" or the SEC's website at www.sec.gov.

Will a list of stockholders entitled to vote at the annual meeting be available?

A list of stockholders of record as of March 28, 2019, the record date, will be available for inspection by stockholders for any purpose germane to the annual meeting during normal business hours from May 13 to May 22, 2019, at our corporate headquarters at 400 Professional Drive, Suite 400, Gaithersburg, Maryland 20879. This list will also be available at the annual meeting.

CORPORATE GOVERNANCE

General

Our by-laws provide that the number of directors shall be fixed from time to time by the Board. The Board has established the number of directors at ten. The Board is divided into three classes, with one class being elected each year and members of each class serving for staggered three-year terms. Fuad El-Hibri, Ronald B. Richard and Kathryn C. Zoon, Ph.D. are Class I directors with terms expiring at this annual meeting. Seamus Mulligan is a Class II director, who was appointed in March 2019 for a term expiring at this annual meeting. Zsolt Harsanyi, Ph.D., General George A. Joulwan and Louis W. Sullivan, M.D. are Class II directors with terms expiring at the 2020 annual meeting of stockholders. Dr. Sue Bailey, Jerome Hauer, Ph.D. and Robert G. Kramer, Sr. are Class III directors with terms expiring at the 2021 annual meeting. For more information regarding the members of our Board, please see "Directors and Nominees" beginning on page 18.

Our Board believes that good corporate governance is important to ensure that the company is managed for the long-term benefit of our stockholders. This section describes key corporate governance guidelines and practices that our Board has adopted. Complete copies of our corporate governance guidelines and code of conduct and business ethics are available on our website at www.emergentbiosolutions.com under "Investors — Governance." Alternatively, you can request a copy of any of these documents by writing to Emergent BioSolutions Inc., Attn: Investor Relations, 400 Professional Drive, Suite 400, Gaithersburg, Maryland 20879.

Corporate Governance Guidelines

Our Board has adopted corporate governance guidelines to assist in the exercise of its duties and responsibilities and to serve the best interests of the company and our stockholders. These guidelines, which provide a framework for the conduct of the Board's business, include the following:

- The Board's principal responsibility is to oversee the management of the company;
- A majority of the members of the Board shall be independent directors;
- The independent directors shall meet regularly in executive session;
- Directors shall have full and free access to management and, as necessary and appropriate, independent advisors;
- New directors shall participate in an orientation program and all directors are expected to participate in continuing director education on an ongoing basis; and
- At least annually, the Board and its committees will conduct a self-evaluation to determine whether they are functioning effectively.

Board Independence

Under applicable NYSE rules, a director will qualify as "independent" only if our Board affirmatively determines that such director has no material relationship with us, either directly or as a partner, stockholder or officer of an organization that has a relationship with us. Our Board has established guidelines to assist it in determining whether a director has such a material relationship. Under these guidelines, a director is not considered to have a material relationship with us if our Board determines that such director is independent under Section 303A.02(b) of the NYSE Listed Company Manual, even if such director:

- Is an executive officer of another company which is indebted to us, or to which we are indebted, unless the total amount of either company's indebtedness to the other is more than 1% of the total consolidated assets of the company with which such director serves as an executive officer; or

- Serves as an officer, director or trustee of a tax-exempt organization to which we make contributions, unless our discretionary charitable contributions to the organization are more than the greater of \$1 million or 2% of that organization's consolidated gross revenues. Our matching of employee charitable contributions would not be included in the amount of our contributions for this purpose.

In addition, ownership of a significant amount of our stock, by itself (as under NYSE listing standards), does not constitute a material relationship. For relationships not covered by the guidelines set forth above, the determination of whether a material relationship exists is made by the other members of our Board who are independent.

Our Board has determined that Dr. Bailey, Dr. Harsanyi, Dr. Hauer, General Joulwan, Mr. Richard, Dr. Sullivan and Dr. Zoon meet the foregoing standards, that none of these directors has a material relationship with us and that each of these directors is "independent" as determined under Section 303A.02 of the NYSE Listed Company Manual.

Meetings and Attendance

In 2018, our Board met 13 times and the standing committees of the Board met 33 times. During 2018, no director attended fewer than 75% of the total number of meetings of the Board of Directors and of the committees of which the director was a member during 2018.

Our corporate governance guidelines provide that directors are expected to attend the annual meeting of stockholders. All members of our Board at the time of the 2018 annual meeting of stockholders attended the meeting.

The Board's Role in Risk Oversight

Our Board is actively engaged in the oversight of risks we face and consideration of the appropriate responses to those risks. The audit committee of our Board periodically discusses risk management, including guidelines and policies to govern the process by which our exposure to risk is handled, with our senior management. The audit committee also reviews and comments on a periodic risk assessment performed by management. After the audit committee performs its review and comment function, it reports any significant findings to our Board. The Board is responsible for the oversight of our risk management programs and, in performing this function, receives periodic risk assessment and mitigation initiatives for information and approval as necessary.

The Board's other committees oversee risks associated with their respective areas of responsibility. For example, the compensation committee considers the risks associated with our compensation policies and practices for both executive compensation and compensation generally.

Board Committees

Our Board has established five standing committees — audit, compensation, nominating and corporate governance, scientific review and strategic operations — each of which operates under a written charter that has been approved by our Board. Current copies of each committee's charter are available on our website at www.emergentbiosolutions.com under "Investors — Governance." Alternatively, you can request a copy of any of these documents by writing to Emergent BioSolutions Inc., Attn: Investor Relations, 400 Professional Drive, Suite 400, Gaithersburg, Maryland 20879.

Our Board has determined that all of the current members of each of the audit, compensation and nominating and corporate governance committees are independent as defined under the rules of the NYSE.

Name	Class	Term Expires	COMMITTEE MEMBERSHIPS				
			Audit Committee	Compensation Committee	Nominating and Corporate Governance Committee	Scientific Review Committee	Strategic Operations Committee
Fuad El-Hibri <i>Executive Chairman</i>	I	2019					✓ c
Robert G. Kramer, Sr.	III	2021					✓
Dr. Sue Bailey	III	2021		✓	✓	✓	
Zsolt Harsanyi, Ph.D.	II	2020	✓ c			✓	✓
Jerome M. Hauer, Ph.D.	III	2021		✓		✓ c	✓
General George A. Joulwan	II	2020	✓	✓	✓		
Seamus Mulligan	II	2019*				✓	✓
Ronald B. Richard <i>Lead Independent Director</i>	I	2019	✓		✓ c		✓
Louis W. Sullivan, M.D.	II	2020	✓	✓ c	✓		
Kathryn C. Zoon, Ph.D.	I	2019			✓	✓	✓

* Class II director Seamus Mulligan was appointed as a director, effective March 19, 2019, with an initial term expiring at the 2019 annual meeting.

✓ c *Committee Chairperson*

✓ *Committee Member*

Audit Committee

The audit committee's responsibilities include:

- Appointing, evaluating, approving the compensation of and assessing the independence of our Independent Registered Public Accounting Firm;
- Overseeing the work of our Independent Registered Public Accounting Firm, including through the receipt and consideration of reports from our Independent Registered Public Accounting Firm;
- Reviewing and discussing with management and the Independent Registered Public Accounting Firm our annual and quarterly financial statements and related disclosures;
- Reviewing the type and presentation of information to be disclosed in the company's earnings press releases, as well as financial information and earnings guidance provided to analysts, rating agencies and others;
- Monitoring our internal control over financial reporting and disclosure controls and procedures;
- Monitoring our ethics and compliance program, including our Code of Conduct and Business Ethics;
- Overseeing our internal audit function;
- Assisting the Board of Directors in overseeing our compliance with legal and regulatory requirements and internal policies and procedures;

- Periodically discussing our risk management policies, and reviewing and commenting on an initial risk assessment by management;
- Establishing policies regarding hiring employees from our Independent Registered Public Accounting Firm and procedures for the receipt and retention of accounting-related complaints and concerns;
- Meeting independently with our internal auditing staff, Independent Registered Public Accounting Firm and management;
- Reviewing and approving or ratifying any related person transactions;
- Evaluating, in coordination with the compensation committee, the company's senior financial management, including the chief financial officer and head of internal audit; and
- Preparing the audit committee report required by SEC rules, which is included on page 27 of this proxy statement.

The members of our audit committee are Dr. Harsanyi, General Joulwan, Mr. Richard and Dr. Sullivan. Dr. Harsanyi is the chairperson of this committee. Our Board has determined that each of the current members of the committee is "independent" in accordance with NYSE listing standards, meets the independence requirements of Rule 10A-3 under the Securities Exchange Act of 1934 (the "Exchange Act"), and is financially literate. Dr. Harsanyi has been designated as the "audit committee financial expert." Our audit committee met nine times during 2018.

Compensation Committee

The compensation committee's responsibilities include:

- Annually reviewing and approving corporate goals and objectives relevant to the compensation of our executive officers;
- Determining the compensation of our chief executive officer and executive chairman;
- Reviewing and approving the compensation of our other named executive officers;
- Overseeing the evaluation of our senior executives;
- Overseeing and administering our cash and equity incentive plans and employee stock purchase plan;
- Reviewing and discussing annually with management our "Compensation Discussion and Analysis," which is included beginning on page 33 of this proxy statement; and
- Preparing the compensation committee report required by SEC rules, which is included on page 57 of this proxy statement.

The processes and procedures followed by our compensation committee in considering and determining executive compensation are described below under "Executive Compensation — Executive Compensation Processes."

The members of our compensation committee are Dr. Bailey, Dr. Hauer, General Joulwan and Dr. Sullivan. Dr. Sullivan is the chairperson of this committee. Our Board has determined that each of the members of the committee is "independent" in accordance with NYSE listing standards. Our compensation committee met seven times during 2018.

Nominating and Corporate Governance Committee

The nominating and corporate governance committee's responsibilities include:

- Identifying individuals qualified to become members of the Board of Directors;
- Recommending to the Board of Directors the persons to be nominated for election as directors and appointed to each of the Board's committees;
- Reviewing and making recommendations to our Board of Directors with respect to director compensation;
- Reviewing and making recommendations to the Board of Directors with respect to management succession planning;
- Developing and recommending to the Board of Directors our corporate governance guidelines;
- Overseeing director education activities; and
- Overseeing an annual evaluation of the Board of Directors.

The processes and procedures followed by our nominating and corporate governance committee in identifying and evaluating director candidates and in making recommendations regarding director compensation are described below under the headings "Director Nomination Process" and "Director Compensation," respectively.

The members of our nominating and corporate governance committee are Dr. Bailey, General Joulwan, Mr. Richard, Dr. Sullivan and Dr. Zoon. Mr. Richard is the chairperson of this committee and also serves as our lead independent director. Our Board has determined that each of the members of the committee is "independent" in accordance with NYSE listing standards. Our nominating and corporate governance committee met four times during 2018.

Scientific Review Committee

The scientific review committee's responsibilities include:

- Reviewing, evaluating and advising the Board of Directors regarding existing products and technology platforms;
- Reviewing, evaluating and advising the Board of Directors regarding the priorities with respect to our research and development programs in light of corporate strategy; and
- Providing advice and guidance to management with respect to proposed acquisitions, in-licensing, collaborations and alliances.

The members of our scientific review committee are Dr. Bailey, Dr. Harsanyi, Dr. Hauer, Mr. Mulligan and Dr. Zoon. Dr. Hauer is the chairperson of this committee. Our scientific review committee met six times during 2018.

Strategic Operations Committee

The strategic operations committee's responsibilities include evaluating and making recommendations to the Board with respect to:

- Our mission, core strategy, strategic plan objectives/success criteria, and the strategic processes;
- Significant acquisition and disposition opportunities;
- Our financial plans and programs and capital structure;
- Our corporate investment policies;

- Our corporate social responsibility activities; and
- Our corporate treasury policies.

The members of the strategic operations committee are Mr. El-Hibri, Dr. Harsanyi, Dr. Hauer, Mr. Kramer, Mr. Mulligan, Mr. Richard and Dr. Zoon. Mr. El-Hibri is the chairperson of this committee. Our strategic operations committee met seven times during 2018.

Director Nomination Process

The process followed by our nominating and corporate governance committee to identify and evaluate director candidates includes requests to members of our Board, management and others for recommendations, meetings from time to time to evaluate biographical information and background material relating to potential candidates and interviews of selected candidates by members of the committee and the Board.

In considering whether to recommend any particular candidate for inclusion in the Board's slate of director nominees, our nominating and corporate governance committee considers the candidate's integrity, business acumen, knowledge of our business and industry, experience, diligence, conflicts of interest and the ability to act in the interests of all stockholders, as well as the needs of the Board for a specific skill set or experience. The nominating and corporate governance committee does not assign specific weights to particular criteria and no particular criterion is a prerequisite for a prospective nominee. The nominating and corporate governance committee does not have a formal policy with respect to diversity, but believes that the backgrounds and qualifications of its directors, considered as a group, should provide a composite mix of experience, knowledge and abilities that will allow it to fulfill its responsibilities. Additionally, our corporate governance guidelines state that it is a goal of the Board to strive for diversity in the composition of the membership of the Board.

Stockholders may recommend to our nominating and corporate governance committee individuals for consideration as potential director candidates by submitting their names, together with appropriate biographical information and background materials and a statement as to whether the stockholder or group of stockholders making the recommendation has beneficially owned more than 5% of our common stock for at least a year as of the date such recommendation is made, to the Nominating and Corporate Governance Committee, c/o Corporate Secretary, Emergent BioSolutions Inc., 400 Professional Drive, Suite 400, Gaithersburg, Maryland 20879. Assuming that appropriate biographical and background material has been provided on a timely basis, in accordance with the procedures described under the heading "Additional Matters — Stockholder Proposals for the 2020 Annual Meeting," the nominating and corporate governance committee will evaluate candidates recommended by stockholders by following the same process, and applying the same criteria, as it follows for candidates submitted by others.

Skills / Attributes Composition

We believe our directors possess the skills and attributes necessary to meet our current and future business needs. The Board annually assesses the mix of skills, attributes and experience of the directors.

Core Attributes for all Board Members

- High level of integrity and character;
- Demonstrated track record of success;
- Advanced degree in science or other relevant discipline; and
- A commitment to contribute the time necessary for active involvement.

Desired Skill / Experience	Mr. El-Hibri	Mr. Kramer	Dr. Bailey	Dr. Harsanyi	Mr. Richard	Dr. Hauer	Gen. Joulwan	Mr. Mulligan	Dr. Sullivan	Dr. Zoon
INDEPENDENCE / DIVERSITY										
Experience with Diversity Issues	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Diverse Background			✓						✓	✓
FINANCIAL / ACCOUNTING										
Financial Expertise	✓	✓		✓				✓	✓	
Risk Management / Internal Controls	✓	✓		✓	✓	✓	✓	✓		✓
Investment Banking / M&A	✓	✓		✓	✓		✓	✓	✓	
CORPORATE GOVERNANCE										
Governance Oversight	✓	✓		✓	✓	✓	✓	✓	✓	
Executive Compensation	✓	✓	✓	✓	✓	✓	✓	✓	✓	
SPECIALIZED EXPERTISE										
Pharma / Biotech	✓	✓	✓	✓		✓		✓	✓	✓
Medicine / Science			✓	✓		✓		✓	✓	✓
Government (Health, Defense, Intelligence, Security)	✓	✓	✓	✓	✓	✓	✓		✓	✓
Sales / Marketing / Distribution	✓	✓		✓	✓	✓		✓		
International Business	✓	✓		✓	✓	✓	✓	✓		
Investor / Public Relations	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Governance Structure and Lead Director

In December 2011, our Board determined to separate the positions of chief executive officer and board chairman, appointing Mr. El-Hibri as executive chairman of the board and our former chief executive officer, Mr. Abdun-Nabi as chief executive officer, effective April 1, 2012. Mr. El-Hibri previously served as our chief executive officer and chairman of our Board of Directors from June 2004 through March 2012. Mr. Abdun-Nabi served as our chief executive officer from April 2012 through March 2019. We have continued to maintain the separate positions of chief executive officer and board chairman with the recent appointment of Robert G. Kramer, Sr. as president and chief executive officer, in connection with the retirement of Mr. Abdun-Nabi. The Board believes this separate governance structure is optimal because it enables the chief executive officer to focus his entire energy on running the company while affording us the benefits of continued leadership and other contributions from Mr. El-Hibri.

Our corporate governance guidelines provide that in the event the chairman of our Board of Directors is not an independent director, a majority of the Board's independent directors may appoint an independent director, who has been nominated by the nominating and corporate governance committee,

to serve as lead director. Because Mr. El-Hibri is not an independent director, our independent directors, based on the recommendation of the nominating and corporate governance committee, re-appointed Mr. Richard as the lead director in May 2017 for a two-year term. As lead director, Mr. Richard serves as the presiding director at all executive sessions of our non-management or independent directors, facilitates communications between Mr. El-Hibri and other members of the Board, determines the need for special meetings of the Board and consults with Mr. El-Hibri on matters relating to corporate governance and Board performance.

Communicating with the Board of Directors

Our Board will give appropriate attention to written communications that are submitted by stockholders and other interested parties and will respond if and as appropriate. The lead director, with the assistance of our corporate secretary is primarily responsible for monitoring communications from stockholders and other interested parties and for providing copies or summaries to the other directors as the lead director considers appropriate.

Under procedures approved by a majority of our independent directors, communications are forwarded to all directors if they relate to important substantive matters and include suggestions or comments that the lead director considers to be important for the directors to know. In general, communications relating to corporate governance and corporate strategy are more likely to be forwarded than communications relating to ordinary business affairs, personal grievances and matters as to which we receive repetitive or duplicative communications.

Stockholders and other interested parties who wish to send communications on any topic to our Board of Directors, lead director or independent directors as a group should address such communications to the Board of Directors, Lead Director or Independent Directors, as applicable, c/o Corporate Secretary, Emergent BioSolutions Inc., 400 Professional Drive, Suite 400, Gaithersburg, Maryland 20879. At the direction of the Board, the corporate secretary will review all such correspondence and forward to the Board, lead director or independent directors a summary and/or copies of any such correspondence that deals with the functions of the Board or its committees or that he or she otherwise determines requires their attention.

STOCK OWNERSHIP INFORMATION

The following table sets forth information regarding the beneficial ownership of our common stock as of March 28, 2019, by (1) each of our directors and director nominees, (2) each named executive officer, (3) all of our executive officers and directors as a group and (4) each stockholder known by us to beneficially own 5% or more of our outstanding common stock. There were 51,382,454 shares of our common stock outstanding on March 28, 2019.

Name of Beneficial Owner	Outstanding Shares Beneficially Owned ⁽¹⁾	Right to Acquire Beneficial Ownership ⁽²⁾	Total Shares Beneficially Owned	Percentage of Shares Beneficially Owned
Directors and director nominees				
Dr. Sue Bailey	36,384	6,572	42,956	*
Zsolt Harsanyi, Ph.D.	21,384	10,006	31,390	*
Jerome Hauer, Ph.D.	—	6,572	6,572	*
George Joulwan	13,626	6,572	20,198	*
Seamus Mulligan ⁽³⁾	594,162	—	594,162	1.2%
Ronald B. Richard	8,375	24,770	33,145	*
Louis W. Sullivan, M.D.	36,384	40,556	76,940	*
Kathryn Zoon, Ph.D.	3,500	4,385	7,885	*
Named Executive officers				
Fuad El-Hibri ⁽⁴⁾	5,353,504	313,051	5,666,555	11.0%
Robert G. Kramer, Sr. ⁽⁵⁾	65,851	106,282	172,133	*
Richard S. Lindahl	—	8,836	8,836	*
Adam Havey	7,972	55,561	63,533	*
Atul Saran	4,222	13,778	18,000	*
Daniel J. Abdun-Nabi ⁽⁶⁾	94,214	386,301	480,515	*
Other Executive Officer	6,164	23,286	29,450	
All executive officers and directors as a group (15 persons) ⁽⁷⁾	6,245,742	1,006,528	7,252,270	14.1%
5% or greater stockholders				
Vanguard Group ⁽⁸⁾	4,832,301	—	4,832,301	9.4%
BlackRock, Inc. ⁽⁹⁾	6,560,237	—	6,560,237	12.8%
Intervac, L.L.C.	4,344,250	—	4,344,250	8.5%

* Represents beneficial ownership of less than 1% of common stock.

- (1) Beneficial ownership is determined in accordance with the rules and regulations of the SEC and includes voting or investment power with respect to shares of our common stock. The information set forth in the table above is not necessarily indicative of beneficial ownership for any other purpose, and the inclusion of any shares deemed beneficially owned in this table does not constitute an admission of beneficial ownership of those shares. Except as otherwise noted, to our knowledge, the persons and entities named in the table above have sole voting and investment power with respect to all of the shares of common stock beneficially owned by them, subject to community property laws, where applicable. Except as otherwise indicated, the address of each of the beneficial owners named in the table above is c/o Emergent BioSolutions Inc., 400 Professional Drive, Suite 400, Gaithersburg, Maryland 20879. Percentage ownership calculations are based on 51,382,454 shares of common stock outstanding as of March 28, 2019.
- (2) Consists of shares of common stock subject to stock options exercisable as of, or within 60 days of March 28, 2019, and shares of common stock issuable under restricted stock unit ("RSU") awards that vest within 60 days of March 28, 2019. Shares of common stock subject to stock options that are exercisable as of or within 60 days of March 28, 2019, and shares of common stock issuable under RSU awards that vest within 60 days of March 28, 2019 are deemed to be outstanding and beneficially

owned by the person holding the option or RSU for the purpose of calculating the percentage ownership of that person, but are not deemed outstanding for the purpose of calculating the percentage ownership of any other person.

- (3) Mr. Mulligan has a beneficial ownership interest in 594,162 shares of our common stock, of which he directly beneficially owns 48,572 shares. Mr. Mulligan and his family collectively hold an aggregate 100% equity interest in Nerano Pharma Ltd., which beneficially owns 545,590 shares of our common stock.
- (4) Mr. El-Hibri has a beneficial ownership interest in 5,666,555 shares of our common stock through his direct holdings in certain entities, his vested restricted stock units and stock options (including restricted stock units and stock options vesting within 60 days of March 28, 2019), and shares held by trusts indirectly controlled by Mr. El-Hibri, which represent approximately 11.0% of our outstanding common stock. This amount also includes 628,678 shares pledged as collateral. In accordance with the rules and regulations of the SEC, Mr. El-Hibri's beneficial ownership is deemed to consist of the following shares of our common stock:
 - 2,350,331 shares held by Intervac, L.L.C.;
 - 1,524,155 shares held by BioVac, L.L.C.;
 - 1,479,018 shares held directly by Mr. El-Hibri; and
 - 313,051 shares of common stock subject to stock options exercisable within 60 days of March 28, 2019.

For more information regarding beneficial ownership and voting of these shares, see "— Certain Stockholder Ownership" below.

- (5) Includes 37,140 shares pledged as collateral.
- (6) Includes 81,450 shares pledged as collateral.
- (7) Although he has been included in this line item, Daniel J. Abdun-Nabi retired effective March 31, 2019 and is no longer an executive officer.
- (8) Based on information provided in a Schedule 13G/A that was filed with the SEC on February 11, 2019, by The Vanguard Group, Inc., The Vanguard Group, Inc. reported sole voting power with respect to 93,842 shares, sole dispositive power with respect to 4,736,297 shares, shared voting power with respect to 6,199 shares and shared dispositive power with respect to 96,004 shares of our common stock as of December 31, 2018. Aggregate beneficial ownership reported by The Vanguard Group, Inc. is on a consolidated basis and includes shares beneficially owned by the following wholly-owned subsidiaries of The Vanguard Group, Inc., none of which individually beneficially owns 5% or greater of the outstanding shares of our common stock: Vanguard Fiduciary Trust Company and Vanguard Investments Australia, Ltd. The address of The Vanguard Group is 100 Vanguard Blvd., Malvern, Pennsylvania 19355.
- (9) Based on information provided in a Schedule 13G/A that was filed with the SEC on January 28, 2019, by BlackRock, Inc., BlackRock, Inc. is the beneficial owner of 6,560,237 shares of our common stock and has sole voting power with respect to 6,433,551 shares of our common stock and sole dispositive power with respect to 6,560,237 shares of our common stock as of December 31, 2018. Aggregate beneficial ownership reported by BlackRock, Inc. is on a consolidated basis and includes shares beneficially owned by the following subsidiaries of BlackRock, Inc., none of which individually beneficially owns 5% or greater of the outstanding shares of our common stock: BlackRock (Netherlands) B.V.; BlackRock Advisors, LLC; BlackRock Asset Management Canada Limited; BlackRock Asset Management Ireland Limited; BlackRock Asset Management Schweiz AG; BlackRock Financial Management, Inc.; BlackRock Fund Advisors; BlackRock Institutional Trust Company, N.A; BlackRock International Limited, BlackRock Investment Management (Australia) Limited; BlackRock Investment Management (UK) LTD; BlackRock Investment Management, LLC;

BlackRock Japan Co LTD; BlackRock (Luxembourg) S.A. The address of BlackRock, Inc. is 55 East 52nd Street, New York, New York 10022.

Certain Stockholder Ownership

Mr. El-Hibri individually, and Mr. El-Hibri and his wife, as tenants by the entirety, hold 89.2% of the ownership interests in BioVac, L.L.C. and have the power to vote and dispose of all shares of our common stock held by BioVac. Mr. El-Hibri disclaims beneficial ownership of these shares for purposes of Section 16 of the Exchange Act or otherwise, except to the extent of his pecuniary interest therein.

Mr. El-Hibri's holdings through Intervac, L.L.C. include 1,638,403 shares of our common stock held by Mr. El-Hibri and his wife, as tenants by the entirety, through their 37.7% equity interest in Intervac, L.L.C.; 127,721 shares held by Mr. El-Hibri's wife; and 584,207 shares held by trusts indirectly controlled by Mr. El-Hibri or his wife. Mr. El-Hibri disclaims beneficial ownership, for purposes of Section 16 of the Exchange Act or otherwise, of those shares held solely by his wife and those shares held by the trusts.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires that our executive officers and directors, and holders of more than 10% of our common stock file reports of ownership and changes in ownership with the SEC and provide us with copies of such reports. We have reviewed such reports received by us and written representations from our directors and executive officers. Based solely on such review, we believe that all ownership reports were timely filed during 2018.

PROPOSALS TO BE VOTED ON AT THE ANNUAL MEETING

PROPOSAL 1 — ELECTION OF DIRECTORS

Background

At the annual meeting, stockholders will have an opportunity to vote for the election of Class I directors Fuad El-Hibri, Ronald B. Richard and Kathryn C. Zoon, as well as Class II director Seamus Mulligan, who was appointed by the Board of Directors, following the recommendation of the nominating and corporate governance committee, to serve as a director effective March 19, 2019, with an initial term expiring at this annual meeting. The company's bylaws provide for the election of directors by a plurality of the votes cast by the stockholders at the annual meeting (i.e. the nominees who receive the most votes will be the nominees elected by the stockholders). If elected, the terms of Fuad El-Hibri, Ronald B. Richard and Kathryn C. Zoon will expire at the 2022 annual meeting of stockholders and the term of Seamus Mulligan will expire at the 2020 annual meeting of stockholders. Proxies received by the company from stockholders will be voted to elect these four nominees, unless marked to the contrary. Each of the nominees has indicated his or her willingness to serve, if elected. However, if any of the nominees should be unable or unwilling to serve, the proxies may be voted for a substitute nominee designated by our Board, or our Board may reduce the number of directors.

Board Recommendation

The Board of Directors recommends a vote "FOR" the election of all Class I director nominees and the Class II director nominee.

DIRECTORS AND NOMINEES

The following biographical information discloses each director's and director nominee's age, business experience, and other directorships held during the past five years. It also includes the experiences, attributes, and skills that caused the nominating and corporate governance committee and the Board of Directors to determine that the individual should serve as a director of the company and the year that each individual was first elected to the Board of Directors. Unless otherwise specified, each nominee has held his or her current position for at least five years.

DIRECTOR NOMINEES

Class I Directors — Terms to Expire at the 2019 Annual Meeting

Fuad El-Hibri, age 61, a director since 2004



Mr. El-Hibri has served as the executive chairman of our Board of Directors since April 2012 and since August 2016, has served as the chairman of the board of directors of Aptevco Therapeutics Inc. From June 2004 to March 2012, Mr. El-Hibri served as chief executive officer and as chairman of our Board of Directors. Mr. El-Hibri previously served as president from March 2006 to April 2007. Mr. El-Hibri served as chief executive officer and chairman of the board of directors of BioPort Corporation from May 1998 until June 2004, when, as a result of our corporate reorganization, BioPort became a wholly owned subsidiary of Emergent BioSolutions and was subsequently renamed as Emergent BioDefense Operations Lansing Inc. Mr. El-Hibri is chairman of East West Resources Corporation, a venture capital and business consulting firm, a position he has held since June 1990. He served as president of East West Resources from September 1990 to January 2004. Mr. El-Hibri is a member of the advisory board of the Yale Healthcare Conference, a member of the board of directors of the International Biomedical Research Alliance, an academic joint venture among the National Institutes of Health, or NIH, Oxford University and Cambridge University. He also serves as chairman of the El-Hibri Foundation. Mr. El-Hibri has also served as a member of the board of trustees of American University from 2004 to 2010 and a member of the board of directors of the U.S. Chamber of Commerce from 2011 to 2017. Mr. El-Hibri received a master's degree in public and private management from Yale University and a B.A. in economics from Stanford University. We believe Mr. El-Hibri's qualifications to serve on our Board of Directors include his service on other boards as well as his prior business experience, including as our chief executive officer and a director.

Ronald B. Richard, age 63, a director since 2005



Mr. Richard has served as a director since January 2005. Mr. Richard has served as the president and chief executive officer of the Cleveland Foundation, the nation's oldest community foundation, since June 2003. From August 2002 to February 2003, Mr. Richard served as president of Stem Cell Preservation, Inc., a start-up medical research company. After leaving Stem Cell Preservation and prior to joining our board of directors, Mr. Richard served as a strategic business advisor for IGEN International, Inc., a biotechnology company. Mr. Richard served as chief operating officer of In-Q-Tel, a venture capital fund that provides technologies to the Central Intelligence Agency, from March 2001 to August 2002. Prior to joining In-Q-Tel, Mr. Richard served in various senior management positions at Matsushita Electric (Panasonic), a consumer electronics company. Mr. Richard is a former U.S. foreign service officer. He served in Osaka/Kobe, Japan and as a desk officer for North Korean, Greek and Turkish affairs at the U.S. Department of State in Washington, D.C. Mr. Richard previously served as chairman of the board of trustees of the International Biomedical Research Alliance, an academic joint venture among the NIH, Oxford University and Cambridge University. Mr. Richard received an M.A. in international relations from Johns Hopkins University School of Advanced International Studies and a B.A. in history from Washington University. He holds honorary doctorates in humane letters from Notre Dame College and Baldwin Wallace College. We believe Mr. Richard's qualifications to serve on our Board of Directors include his past and current industry experience, including his prior senior management positions, including positions in the biotechnology industry.

Kathryn C. Zoon, Ph.D., age 70, a director since 2016



Dr. Zoon has served as a director since November 2016. Dr. Zoon is currently NIAID/NIH Scientist Emeritus, a position she has held since August 2016. From April 2016 to June 2016, she was Interim Director of the new NIH Office of Research Support and Compliance where she developed and established the new office and recruited key individuals to continue its future operations. She was also Chief of the Cytokine Biology Section in the Division of Intramural Research, National Institute of Allergy and Infectious Diseases ("NIAID"), NIH until July 2016, where she conducted research on the structure and function of human interferon alphas and developed a new cell therapy using IFNs and autologous monocytes which she is still collaborating with the National Cancer Institute ("NCI") to start a clinical trial for ovarian cancer. She was previously the Director of the Division of Intramural Research at NIAID from 2006- August 2015 and was the Deputy Director for Planning and Development of the Division of Intramural Research at NIAID, 2004-2006. Dr. Zoon served as the Principal Deputy Director of the Center for Cancer Research at the National Cancer Institute, 2003-2004. She served as the Director of the Center for Biologics Evaluation and Research ("CBER"), Food and Drug Administration ("FDA") (1992-2003), and has been a member of the NIH Scientific Directors from 1992 to 2015. Dr. Zoon was the Director of the Division of Cytokine Biology in CBER, 1988-1992, where she directed the

research and review of cytokines, growth factors, and cellular products. She studied the production and purification of human interferon at NIH from 1975 to 1980 with Nobel Laureate Christian B. Anfinsen. She received her B.S. degree, cum laude, in chemistry from Rensselaer Polytechnic Institute and was granted a Ph.D. in biochemistry from the Johns Hopkins University. Dr. Zoon is an associate editor of the Journal of Interferon Research and the author of more than 130 scientific papers. She was President of the International Society for Interferon and Cytokine Research, 2000-2001. Dr. Zoon has been a member of the National Academy of Medicine since 2002 and is also a member of the Division on Earth and Life Studies Committee, National Research Council, 2015- 2019. She has served a member of the World Health Organization's Expert Committee on Biological Standards for almost two decades. In May 2005, she received the U.S. Department of Health and Human Services ("HHS") Secretary's Award for Distinguished Service for the Tissue Action Plan Team. Most recently she received the 2014 William S. Hancock Award for outstanding achievements in CMC regulatory science. We believe Dr. Zoon's expertise in regulatory matters and product development adds great depth and breadth to our Board of Directors.

Class II Director — Term to Expire at the 2019 Annual Meeting

Seamus Mulligan, age 58, a director since 2019



Mr. Mulligan has served as a director since March 2019. Prior to that, he was a consultant to us from October 2018 until the effective date of his appointment as a director. Mr. Mulligan was a co-founder and principal investor of Adapt Pharma Ltd. ("Adapt Pharma") and served as its chairman and chief executive officer from May 2014 until October 2018, when Adapt Pharma was acquired by us. Mr. Mulligan is also a member of the board of directors of Jazz Pharmaceuticals PLC, having been appointed on the closing of the merger of Jazz Pharmaceuticals with Azur Pharma Ltd ("Azur Pharma") in January 2012 (the "Azur Merger"). Mr. Mulligan was the founder of Azur Pharma and served as its chairman and chief executive officer and as a member of its board of directors from 2005 until the closing of the Azur Merger. Mr. Mulligan also served as the chief business officer, International Business Development with Jazz Pharmaceuticals from the closing of the Azur Merger until February 2013. From 2006 to April 2017, Mr. Mulligan served as executive chairman of Circ Pharma Limited and its subsidiaries, a pharmaceutical development stage group. From 1984 until 2004, he held various positions with Elan Corporation, plc, a pharmaceutical company and, finally, as executive vice president, Business and Corporate Development. Prior to that position, he held the roles of president of Elan Pharmaceutical Technologies, the drug delivery division of Elan Corporation, plc, executive vice president, Pharmaceutical Operations, vice president, U.S. Operations and vice president, Product Development. Mr. Mulligan also served as a member

of the board of directors of the U.S. National Pharmaceutical Council until 2004. Mr. Mulligan received a B.Sc. (Pharm) and M.Sc. from Trinity College Dublin. As a founder of Adapt Pharma and extensive experience as a pharmaceutical industry executive, Mr. Mulligan brings to our Board of Directors an expertise in pharmaceutical research and development and business development and over 35 years of experience in the pharmaceutical industry.

CONTINUING DIRECTORS

Class II Directors — Terms to Expire at the 2020 Annual Meeting

Zsolt Harsanyi, Ph.D., age 75, a director since 2004



Dr. Harsanyi has served as a director since August 2004. Dr. Harsanyi has served as chairman of the board of N-Gen Research Laboratories, Inc., a privately-held biopharmaceutical company, since March 2011. Prior to that, Dr. Harsanyi served as chief executive officer and chairman of the board of directors of Exponential Biotherapies Inc., a private biotechnology company, from December 2004 to February 2011. In January 2016, Dr. Harsanyi returned to Exponential Biotherapies Inc. to serve as chairman of the board. Since August 2016, Dr. Harsanyi has been a director of Aptevo Therapeutics Inc., a publicly-traded biotech company which focuses on bringing novel oncology and hematology therapeutics to market. Dr. Harsanyi served as president of Porton International plc, a pharmaceutical and vaccine company, from January 1983 to December 2004. Dr. Harsanyi was a founder of Dynport Vaccine Company LLC in September 1996. Prior to joining Porton International, Dr. Harsanyi was vice president of corporate finance at E.F. Hutton, Inc. Previously, Dr. Harsanyi directed the first assessment of biotechnology for the U.S. Congress' Office of Technology Assessment, served as a consultant to the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research and was on the faculties of Microbiology and Genetics at Cornell Medical College. Dr. Harsanyi received a Ph.D. from Albert Einstein College of Medicine and a B.A. from Amherst College. We believe Dr. Harsanyi's qualifications to serve on our Board of Directors include his industry experience, including his senior executive and financial positions.

General George A. Joulwan (Ret.), age 79, a director since 2013



General George A. Joulwan (Ret.) has served as a director since July 2013. General Joulwan's distinguished military career spans 36 years from 1961 to his retirement as a four-star general and the Supreme Allied Commander of NATO in 1997. In 1998 General Joulwan founded, and currently serves as president of, One Team, Inc., which provides business consulting services. Previously, General Joulwan served as a director of General Dynamics Corporation from 1998 through 2012, and currently serves on several private company and charitable boards. He was a professor at the United States Military Academy at West Point and served on the Board of Trustees for the United States Military Academy. General Joulwan was a professor of National Security Strategy at the National Defense University. General Joulwan is a graduate of West Point and holds a Master's degree in Political Science and an Honorary Doctor of Law degree from Loyola University in Chicago. As a retired U.S. Army general, we believe General Joulwan brings a unique perspective to our board. Through his extensive and distinguished military career, he has developed critical leadership and management skills that we believe make him a significant contributor to our board. In addition, we believe General Joulwan's foreign policy experience and knowledge of the government and the military provide valuable insight into international defense markets and the global defense industry.

Louis W. Sullivan, M.D., age 85, a director since 2006



Dr. Sullivan has served as a director since June 2006. Dr. Sullivan has served as president emeritus of Morehouse School of Medicine since July 2002. Dr. Sullivan served as president of Morehouse School of Medicine from 1981 to 1989 and from 1993 to 2002. From 1989 to 1993, Dr. Sullivan was Secretary of the Department of Health and Human Services. Dr. Sullivan serves on the board of directors of United Therapeutics Corporation, a publicly-traded biotechnology company. He served as a director for Henry Schein, Inc. a publicly-traded biotechnology company, from 2004 to June 2016. He was a founder and chairman of Medical Education for South African Blacks, Inc., a trustee of Africare, a director of the National Center on Addiction and Substance Abuse at Columbia University and chairman of the board of trustees of the National Health Museum, a non-profit institution developing a museum of health sciences. Dr. Sullivan received his M.D. from Boston University and a B.S. from Morehouse College. We believe Dr. Sullivan's qualifications to serve on our Board of Directors include his extensive service on various other boards and service with public institutions, as well as his medical background and prior senior positions in other organizations.

Class III Directors — Terms to expire at the 2021 Annual Meeting

Robert G. Kramer, Sr., age 61, a director since 2019



Mr. Kramer has served as our president and chief executive officer since April 2019 and served as our president and chief operating officer from March 2018 to March 2019. Previously, he also served as our executive vice president, administration, chief financial officer and treasurer from September 2012 until his promotion to president and chief operating officer in March 2018. Mr. Kramer first joined us in 1999 as our chief financial officer. From 1999 until his prior retirement in 2010, he held various executive positions with the last being president of Emergent Biodefense Operations Lansing. Mr. Kramer returned to the company in 2011 as the interim head of the biosciences division, and then as interim executive vice president, corporate services division. Prior to joining us in 1999, Mr. Kramer held various financial management positions at Pharmaci Corporation, which subsequently merged with the Upjohn Company in 1995 and eventually became part of Pfizer Inc. Mr. Kramer holds an M.B.A. from Western Kentucky University and a B.S. in industrial management from Clemson University. We believe Mr. Kramer's qualifications to serve on our Board of Directors include his extensive experience in senior management positions and his demonstrated business judgment, including his long service as a senior executive of our company.

Dr. Sue Bailey, age 75, a director since 2007



Dr. Bailey has served as a director since June 2007. Dr. Bailey served as a news analyst for NBC Universal, a media and entertainment company, from November 2001 to August 2006. Previously, Dr. Bailey served as Administrator, National Highway Traffic Safety Administration, as Assistant Secretary of Defense (Health Affairs) and as Deputy Assistant Secretary of Defense (Clinical Services). Dr. Bailey is a former faculty member at Georgetown Medical School and U.S. Navy officer, having achieved the rank of Lt. Commander, U.S. Navy Reserve. Dr. Bailey received her D.O. from Philadelphia College of Osteopathic Medicine and a B.S. from the University of Maryland. We believe Dr. Bailey's qualifications to serve on our Board of Directors include her medical background and prior senior positions in government.

Jerome M. Hauer, Ph.D., age 67, a director since 2015



Dr. Hauer has served as a director since January 2015. He previously served on our Board of Directors from May 2004 to October 2011. Currently, Dr. Hauer is a senior advisor at Teneo Risk in New York City and Washington, D.C. and a visiting professor at Cranfield University/Defence Academy of the United Kingdom. Before joining Teneo Risk, Dr. Hauer served from January 2012 until December 2014 as the Commissioner of New York State Division of Homeland Security and Emergency Services and Chairman of the Executive Committee on Counterterrorism. Formerly, Dr. Hauer served as chief executive officer of The Hauer Group from 2006 to 2011 and as senior vice president and co-chair of the homeland security practice of Fleishman-Hillard Government Relations from January 2005 to March 2006. Prior to joining Fleishman-Hillard, Dr. Hauer served as acting assistant secretary for the office of public health emergency preparedness at HHS from June 2002 to November 2003 and as director of the office of public health preparedness of HHS from May 2002 to June 2002. Dr. Hauer served as the first director of the New York City Mayor's Office of Emergency Management under Mayor Rudolph Giuliani. He also served as the director of Emergency Medical Services and Emergency Management as well as director of the Department of Fire and Buildings for the State of Indiana under Governor Evan Bayh. Dr. Hauer holds a Ph.D. from Cranfield University/Defence Academy of the United Kingdom. He received an M.H.S. in public health from Johns Hopkins University School of Hygiene and Public Health and a B.A. from New York University. We believe Dr. Hauer's qualifications to serve on our Board of Directors include his significant experience in various governmental and public health organizations, as well as his experience on other boards.

DIRECTOR COMPENSATION

The compensation of our directors is established by our nominating and corporate governance committee based on information related to market practice provided by our independent compensation consultant Willis Towers Watson. This compensation is periodically reviewed with respect to cash retainers, meeting fees and equity incentives. The following table sets forth information for the fiscal year ended December 31, 2018, regarding the compensation of our directors who are not also named executive officers.

Name	Fees Earned or Paid in Cash	Stock Awards ⁽¹⁾	All Other Compensation	Total
Dr. Sue Bailey	\$ 82,000	\$ 250,000	\$ —	\$ 332,000
Zsolt Harsanyi, Ph.D	\$ 104,000	\$ 250,000	\$ —	\$ 354,000
Jerome Hauer, Ph.D	\$ 96,500	\$ 250,000	\$ —	\$ 346,500
George Joulwan	\$ 88,000	\$ 250,000	\$ —	\$ 338,000
Ronald B. Richard	\$ 132,500	\$ 250,000	\$ —	\$ 382,500
Louis W. Sullivan, M.D.	\$ 96,500	\$ 250,000	\$ —	\$ 346,500
Kathryn Zoon, Ph.D	\$ 84,440	\$ 250,000	\$ —	\$ 334,440

- (1) The amounts in the "Stock Awards" column reflect the grant date fair value of equity awards granted to the directors named in the table above for the fiscal year ended December 31, 2018, calculated in accordance with SEC rules.

Under our director compensation program, non-employee directors receive the compensation set forth in the table below. We also reimburse our non-employee directors for out-of-pocket expenses incurred in connection with attending our Board and committee meetings.

Element	Program 2018	Program 2019
Annual Retainer	\$55,000	\$60,000
Lead Director Additional Retainer	\$30,000	\$30,000
Board Meeting Fees	None	None
Committee Meeting Fees	None	None
Committee Chair Additional Retainer	\$25,000 – Audit, Strategic Operations ⁽¹⁾ \$17,500 – Other ⁽²⁾	\$25,000 – Audit, Strategic Operations ⁽¹⁾ \$20,000 – Compensation \$17,500 – Other ⁽²⁾
Committee Member Additional Retainer	\$15,000 – Audit, Strategic Operations ⁽³⁾ \$9,000 – Other ⁽²⁾	\$15,000 – Audit, Strategic Operations ⁽³⁾ \$10,000 – Compensation \$9,000 – Other ⁽²⁾
Annual Equity Awards	\$250,000 in RSUs per director	\$250,000 in RSUs per director
Initial Election Equity Awards ⁽⁴⁾	\$375,000 in RSUs per director	\$375,000 in RSUs per director

- (1) Chair of the Strategic Operations Committee (Fuad El-Hibri) does not receive a retainer.
- (2) Other includes the Nominating and Corporate Governance and Scientific Review Committees for the 2018 and 2019 programs, but includes the Compensation Committee for the 2018 program only.
- (3) Employee Directors (Fuad El-Hibri, Robert G. Kramer, Sr. and former director Daniel J. Abdun-Nabi) do not receive additional cash retainers for service on the Strategic Operations Committee.
- (4) Initial election equity award values are inclusive of the annual equity award.

**PROPOSAL 2 — RATIFICATION OF APPOINTMENT OF INDEPENDENT
REGISTERED PUBLIC ACCOUNTING FIRM**

Ernst & Young LLP currently serves as our Independent Registered Public Accounting Firm. After consideration of the firm's qualifications and past performance, the audit committee has appointed Ernst & Young LLP as our Independent Registered Public Accounting Firm for the fiscal year ending December 31, 2019.

Under NYSE and SEC rules and the audit committee charter, the audit committee is directly responsible for the selection, appointment, compensation and oversight of the company's Independent Registered Public Accounting Firm and is not required to submit this appointment to a vote of the stockholders. Our Board and the audit committee, however, consider the appointment of our Independent Registered Public Accounting Firm to be an important matter of stockholder concern and are submitting the appointment of Ernst & Young LLP for ratification by our stockholders as a matter of good corporate practice. One or more representatives of Ernst & Young LLP is expected to be present at the annual meeting and will have an opportunity to make a statement and respond to appropriate questions from stockholders. In the event that our stockholders fail to ratify the appointment of Ernst & Young LLP, it will be considered as a direction to the audit committee to consider the appointment of a different firm. Even if the appointment is ratified, the audit committee in its discretion may select a different Independent Registered Public Accounting Firm at any time during the year if it determines that such a change would be in the best interests of the company and its stockholders.

Required Vote and Board Recommendation

Ratification of the appointment of Ernst & Young LLP as our Independent Registered Public Accounting Firm requires the affirmative vote of the majority of votes cast on such matter at the annual meeting. Abstentions will have no effect on the matter.

The Board of Directors recommends a vote "FOR" the ratification of the appointment of Ernst & Young LLP as the company's Independent Registered Public Accounting Firm.

AUDIT COMMITTEE REPORT

The audit committee has reviewed our audited financial statements for the fiscal year ended December 31, 2018, and discussed them with management and the Independent Registered Public Accounting Firm.

The audit committee also has received from, and discussed with, the Independent Registered Public Accounting Firm various communications that the Independent Registered Public Accounting Firm is required to provide to the audit committee, including the matters required to be discussed by the Statement on Auditing Standards No. 1301, *Communications with Audit Committees*, as adopted by the Public Company Accounting Oversight Board.

The audit committee has received the written disclosures and the letter from the Independent Registered Public Accounting Firm required by the applicable requirements of the Public Company Accounting Oversight Board 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 their independence.

Based on the review and discussions referred to above, the audit committee recommended to the Board of Directors of Emergent BioSolutions Inc. that the audited financial statements be included in the Annual Report on Form 10-K for the year ended December 31, 2018 for filing with the Securities and Exchange Commission.

By the Audit Committee of the Board of Directors of
Emergent BioSolutions Inc.

Zsolt Harsanyi, Ph.D., Chairperson
General George A. Joulwan
Ronald B. Richard
Louis W. Sullivan, M.D.

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**Independent Registered Public Accounting Firm's Fees**

The following table summarizes the fees of Ernst & Young LLP, our Independent Registered Public Accounting Firm, billed to us for each of the last two fiscal years for audit and other services. For 2018, audit fees include an estimate of amounts not yet billed. None of the fees described in the following table were approved using the "de minimis exception" under SEC rules.

	December 31,	
	2018	2017
Audit Fees	\$ 3,536,039	\$ 3,147,575
Audit -Related Fees	418,041	1,995
Tax Fees	356,524	375,019
All Other Fees	—	—
	<u>\$ 4,310,604</u>	<u>\$ 3,524,589</u>

Audit Fees. Audit fees consist of fees for the audit of our consolidated financial statements and other professional services provided in connection with statutory and regulatory filings or engagements, along with fees in connection with financing transactions.

Audit-related fees. Audit-related fees consist of fees for assurance and related services that are reasonably related to the performance of the audit, the review of our financial statements and acquisition-related services, which are not reported under "Audit Fees."

Tax Fees. Tax fees consist of fees for tax compliance, tax advice and tax planning services. Tax compliance services, which relate to preparation of tax returns and claims for refunds, accounted for none of the total tax fees billed in 2018 and \$126,837 of the total tax fees billed in 2017. Tax advice and tax planning services relate to assistance with tax credit and deduction studies and calculations and tax advice related to acquisitions and dispositions, including audit support.

Pre-Approval Policies and Procedures

Our audit committee has adopted policies and procedures relating to the approval of all audit and non-audit services that are to be performed by our Independent Registered Public Accounting Firm. These policies generally provide that we will not engage our Independent Registered Public Accounting Firm to render audit or non-audit services unless the service is specifically approved in advance by the audit committee or the engagement is entered into pursuant to the pre-approval procedures described below.

From time to time, our audit committee may pre-approve specified types of services that are expected to be provided to us by our Independent Registered Public Accounting Firm during the next 12 months. Any such pre-approval is detailed as to the particular service or type of services to be provided and is also generally subject to a maximum dollar amount.

PROPOSAL 3 — ADVISORY VOTE TO APPROVE EXECUTIVE COMPENSATION

Our Board has determined to provide our stockholders the opportunity to vote each year to approve, on an advisory basis, the compensation of our named executive officers, as disclosed in this proxy statement.

Our executive compensation programs are designed to attract, motivate, and retain executive officers, who are critical to our success. Under these programs, our named executive officers are rewarded for the achievement of our near-term and longer-term financial and strategic goals and for driving corporate financial performance and stability. The programs contain elements of cash and equity-based compensation and are designed to align the interests of our executives with those of our stockholders.

The "Executive Compensation" section of this proxy statement beginning on page 32, including "Compensation Discussion and Analysis" beginning on page 33 describes in detail our executive compensation programs and the decisions made by the compensation committee and the Board with respect to 2018. Highlights of our executive compensation program include the following:

- Pay should be linked to performance;
- Compensation opportunities should be competitive with relevant peer companies;
- The equity compensation program should align executive interests with those of stockholders; and
- Supplemental benefits and perquisites should be limited and used selectively in specific circumstances to attract and retain executives.

As we describe in the "Compensation Discussion and Analysis" section of this proxy statement, our executive compensation program embodies a pay-for-performance philosophy that supports our business strategy and aligns the interests of our executives with those of our stockholders. Our Board believes this link between compensation and the achievement of our near- and long-term business goals has helped drive our performance over time. At the same time, we believe our program does not encourage excessive risk-taking by management and that our compensation policies and practices are not reasonably likely to have a material adverse effect us.

Pursuant to Section 14A of the Exchange Act, our Board is asking stockholders to approve, on an advisory basis, the following resolution:

RESOLVED, that the compensation paid to Emergent BioSolutions Inc.'s named executive officers, as disclosed pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the compensation discussion and analysis, the compensation tables and any related narrative discussions disclosed in this proxy statement, is hereby approved on an advisory basis.

As an advisory vote, this proposal is not binding. Although the vote is non-binding, our compensation committee and Board value the opinions expressed by our stockholders in their vote on this proposal and will consider the outcome of the vote when making future compensation decisions for our executive officers.

Vote Required and Board Recommendation

Approval of the advisory vote on executive compensation requires the affirmative vote of the majority of the votes cast on the matter at the annual meeting. If you own shares through a bank, broker or other holder of record, you must instruct your bank, broker or other holder of record how to vote on this proposal for your shares to be counted on this proposal. Abstentions and broker non-votes will have no effect on the outcome of the matter.

The Board of Directors recommends a vote "FOR" the approval, on an advisory basis, of the compensation of our named executive officers.

IDENTIFICATION OF EXECUTIVE OFFICERS

Beginning in March 2018, we made certain executive management changes, which we believe will continue to align our organizational structure to our long-term strategy and to the achievement of our near- and long-term growth objectives. Such changes include the promotion of Robert G. Kramer Sr. to president and chief executive officer, and the appointment of Richard S. Lindahl as our new executive vice president, chief financial officer and treasurer. Set forth below is information regarding the positions, ages and business experience of each of our current executive officers.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Fuad El-Hibri	61	Executive Chairman
Robert G. Kramer, Sr.	61	President and Chief Executive Officer
Richard S. Lindahl	55	Executive Vice President, Chief Financial Officer and Treasurer
Adam Havey	48	Executive Vice President, Business Operations
Atul Saran	45	Executive Vice President, Corporate Development, General Counsel and Corporate Secretary
Katherine Strei	57	Executive Vice President, Human Resources and Communications, Chief Human Resources Officer

Fuad El-Hibri For more information about Mr. El-Hibri, please see his biography under the caption "Directors and Nominees."

Robert G. Kramer, Sr. For more information about Mr. Kramer, please see his biography under the caption "Directors and Nominees."

Richard S. Lindahl. Richard S. Lindahl was appointed as our executive vice president, chief financial officer and treasurer in March 2018. Mr. Lindahl has more than two decades of financial leadership experience. Prior to joining us, Mr. Lindahl served as chief financial officer of CEB Inc., a best practice insight and technology company, from May 2009 until April 2017 and as its principal accounting officer until July 2015. At CEB, Mr. Lindahl was responsible for managing finance strategy and operations, tax and investor relations initiatives, overseeing the corporate real estate, facilities and procurement functions and serving as chair of its investments and acquisitions committee. From 2006 until 2008, Mr. Lindahl served as senior vice president and treasurer of Sprint Nextel Corporation and from 2005 to 2006, he served as vice president and treasurer of Sprint Nextel. From 1997 until 2005, Mr. Lindahl served in various positions at Nextel Communications, Inc., including as treasurer and in financial planning and analysis roles. Prior to joining Nextel, from 1995 until 1997, Mr. Lindahl held the position of vice president, finance at Pocket Communications, Inc. Before 1995, Mr. Lindahl held various positions at MCI Communications Corp., Deloitte & Touche LLP, and Casher Associates, Inc. Mr. Lindahl earned an M.B.A. from the Darden School at the University of Virginia and a B.A. in computer science from Dartmouth College.

Adam Havey. Mr. Havey joined us in 2003 and has served as our executive vice president, business operations since April 2017. He previously served as executive vice president and president, biodefense division from March 2011 to March 2017. Prior to that, Mr. Havey held various roles, including president of Emergent Biodefense Operations Lansing LLC from January 2009 to February 2011, vice president of business operations from November 2007 to December 2008, and senior director of manufacturing development from June 2006 to November 2007. Prior to joining us, Mr. Havey served in product development for Eli Lilly. He received a B.S. degree in chemical engineering from Michigan State University.

Atul Saran. Mr. Saran has served as executive vice president, corporate development and general counsel since May 2017 and was appointed corporate secretary in July 2017. Prior to joining Emergent, Mr. Saran served as senior vice president and general counsel at MacroGenics, Inc., from April 2014 to

May 2017. Previously, Mr. Saran served in various leadership roles at AstraZeneca plc ("AstraZeneca"), and MedImmune, LLC ("MedImmune"), from 2003 through 2014, including vice president, corporate development and ventures at AstraZeneca and chairman of the MedImmune Ventures investment committee from May 2013 to January 2014; senior vice president, corporate development and ventures from January 2011 to May 2013; and positions of increasing responsibility in the MedImmune legal department from 2003 through 2010, culminating as vice president and deputy general counsel. Before his time at MedImmune, Mr. Saran was an associate attorney in the business and finance group at Hogan & Hartson LLP. Mr. Saran is a board member of LogicNets, Inc., a private company. He previously served on the boards of directors for VentiRx Pharmaceuticals, Inc., Xencor, Inc., Inotek Pharmaceuticals, Inc. and Arriva Pharmaceuticals, Inc. Mr. Saran holds a J.D. from the University of Illinois College of Law, an M.B.A from the MIT Sloan School of Management and a B.S. in Biological Sciences from Stanford University.

Katherine Strei. Ms. Strei serves as our executive vice president, human resources and communications and chief human resources officer. Ms. Strei joined us in January 2016 and has served as executive vice president and chief human resources officer since April 2017. She became executive vice president of corporate communications in March 2018. She previously served as senior vice president and chief human resources officer from January 2016 to March 2017. Prior to joining us, Ms. Strei was an independent consultant, specializing in leadership and organization development from February 2014 to January 2016. Ms. Strei has extensive experience in human resource leadership roles, having previously served as vice president of global leadership and organization development at MedImmune from June 2005 to January 2014, director of executive development at the Federal National Mortgage Association from May 1999 to May 2005, and program director, director of training, as well as corporate manager for ManorCare Health Services from August 1992 to May 1999. Ms. Strei received a B.A. in Sociology from Lawrence University and an M.S. in Organization Development from American University/NTL Institute. Ms. Strei also holds a certificate for Leadership Coaching from Georgetown University.

EXECUTIVE COMPENSATION

Executive Compensation Processes

The compensation committee has implemented an annual review program for our executive officers under which it determines annual salary increases, annual cash bonus amounts and annual equity awards granted to our executive officers. Our chief executive officer and executive vice president of human resources prepare compensation recommendations regarding the compensation of each of our executive officers, other than the executive chairman of the board and the chief executive officer, and present these recommendations to the compensation committee for approval. The compensation committee evaluates the overall performance of the chief executive officer and the other executive officers other than the executive chairman based on achievement of corporate goals and objectives, achievement of individual goals, performance of job responsibilities and demonstration of behavioral competencies. The compensation committee then makes individual compensation decisions for the chief executive officer and the executive officers other than the executive chairman based on these evaluations and competitive market data. The compensation committee evaluates the overall performance of the executive chairman based on performance of job responsibilities and makes compensation decisions for the executive chairman based on this evaluation and competitive market data for comparable executive positions.

The Board has delegated to our chief executive officer and our executive chairman the authority to grant stock options and RSUs to employees under the Emergent BioSolutions Inc. Stock Incentive Plan. However, neither our chief executive officer nor our executive chairman has authority to grant stock options or RSUs: (i) to himself; (ii) to any other director, executive officer, officer or other person whose compensation is determined by the compensation committee; or (iii) to any person whom the Board or the compensation committee may from time to time designate in writing. In addition, neither the chief executive officer nor the executive chairman has authority to grant, in the aggregate, stock options and RSUs with respect to more than 2,000,000 shares of common stock in any fiscal year or to grant to any person, in any one fiscal year, stock options and RSUs with respect to more than 1,000,000 shares of common stock, in each case as counted against the maximum aggregate number of shares of common stock available for issuance under the Emergent BioSolutions Inc. Stock Incentive Plan.

The compensation committee has the authority to retain compensation consultants and other outside advisors to assist in the evaluation of executive officer compensation. During 2018, the compensation committee retained Willis Towers Watson as an independent outside compensation consultant to advise the compensation committee on market compensation practices, the implementation of public company compensation programs and policies and to review recommendations from management on compensation matters. The compensation committee met with the compensation consultant seven times in 2018 and three times in early 2019 at the time salary, annual bonus targets and equity award guidelines were being considered for our executive chairman, chief executive officer and other executive officers. Willis Towers Watson performed executive compensation services in support of the compensation committee and also collected competitive market data for specific positions and researched market practices on the compensation plan and design for the company, providing data and advice that the compensation committee considers in making its decisions. The compensation committee considered the factors specified by the SEC regarding the independence of compensation advisors and determined that Willis Towers Watson's services for the compensation committee and the company during 2018 and 2019 have not raised a conflict of interest and that Willis Towers Watson is an independent compensation advisor to the committee and the company.

COMPENSATION DISCUSSION AND ANALYSIS

This section discusses the principles underlying our executive compensation programs, policies and decisions and the most important factors relevant to an analysis of these programs, policies and decisions. It provides qualitative information regarding the manner and context in which compensation is earned by, and awarded to, our named executive officers and is intended to place in perspective the data presented in the compensation tables included in this proxy statement. For 2018, our named executive officers, whose compensation is set forth in the 2018 Summary Compensation Table and other compensation tables contained in this proxy statement, and their current positions with the company, are:

2018 Named Executive Officers

- **Fuad El-Hibri** — *Executive Chairman of the Board of Directors*
- **Robert G. Kramer, Sr.** — *President and Chief Executive Officer*
- **Richard S. Lindahl** — *Executive Vice President, Chief Financial Officer and Treasurer*
- **Adam Havey** — *Executive Vice President, Business Operations*
- **Atul Saran** — *Executive Vice President, Corporate Development, General Counsel and Secretary*
- **Daniel J. Abdun-Nabi** — *Former Chief Executive Officer*

The compensation committee oversees our executive compensation programs. In this role, the compensation committee reviews and approves all compensation decisions relating to our named executive officers. The compensation committee has engaged Willis Towers Watson as its independent compensation consultant to provide competitive compensation data and assist with the implementation of various aspects of our base salary determinations, annual bonus plan, long-term incentive program and other executive compensation decisions from time to time. Willis Towers Watson provides data and advice that the compensation committee considers in making its decisions.

Executive Summary

Our Strategic Accomplishments

In 2018, we achieved the following:

- Completed the acquisition of Adapt Pharma;
- Completed the acquisition of PaxVax Holding Company Ltd. ("PaxVax");
- Closed on a new \$1 billion senior secured credit facility;
- Achieved organic revenue of approximately \$732.3 million (or 94.4% of goal), including international product sales revenue of \$29 million (or 4% of total revenue), but excluding the impact of the Adapt Pharma and PaxVax acquisitions;
- Achieved adjusted net income of approximately \$106.4 million (103% of goal); which excludes acquisition-related costs and the acquired operations of Adapt Pharma and PaxVax;
- Submitted an application for Emergency Use Authorization ("EUA") for AV7909 in the fourth quarter of 2018;
- Enhanced organizational capabilities in operational excellence and manufacturing; and
- Implemented several programs that strengthen leadership and management capabilities.

New Corporate Leadership Structure

In January 2019, we announced that Daniel J. Abdun-Nabi would retire as chief executive officer, effective March 31, 2019. Mr. Abdun-Nabi continues to serve as a consultant to the company, providing strategic advice and guidance to the company and the Strategic Operations Committee of the Board of Directors in connection with strategic plan development, mergers, acquisitions, other strategic transactions, and regulatory matters; continued transition support for the company's chief executive officer; and other requested assistance in connection with the company's business activities.

The company also announced in January 2019 the promotion of Robert G. Kramer, Sr. to president and chief executive officer, effective April 1, 2019. He was previously promoted to president and chief operating officer in March 2018, after having served as executive vice president, administration, chief financial officer and treasurer for several years.

In addition, in March 2018, we announced the appointment of Richard S. Lindahl as executive vice president, chief financial officer and treasurer to fill the prior role of Robert G. Kramer, Sr. Accordingly, many of the compensation actions described in this "Compensation Discussion and Analysis" reflect new roles for these executive officers.

Highlights of 2018 Compensation Decisions and Recent Actions

- **2019 Performance-Based Stock Unit ("PSU") Awards.** In February 2019, the compensation committee, with input from Willis Towers Watson, approved grants of PSU awards under the company's Stock Incentive Plan. These awards will result in the issuance of a number of shares based on the level of achievement with respect to "adjusted net income" as a percentage of total revenue (as determined in accordance with GAAP) for the 2021 fiscal year. "Adjusted Net Income" is defined as net income, determined in accordance with GAAP, excluding acquisition-related costs (transaction and integration), non-cash amortization charges, exit and disposal costs, and the impact of purchase accounting on inventory step-up (all of which exclusions shall be tax-effected utilizing the statutory U.S. federal income tax rate) and the impact of material changes in the U.S. federal income tax rate subsequent to the first year of the performance period. Achievement of the threshold performance objective, target performance objective and maximum performance objective will result in a share (and corresponding cash relating to dividends paid by the company between the grant date and the date of issuance of shares) payout of 50%, 100% and 150% of the target number of shares, respectively, as applicable. Performance below the 50% threshold will result in no payout. Performance between threshold, target and maximum will result in pro-rata payouts between each of those performance levels. Awards issued under the agreement governing the terms of the 2019-2021 PSUs (the "2019-2021 PSU Award Agreement") will vest based on the achievement of the performance goal for the 2021 fiscal year, as certified by the compensation committee following the performance period.
- **Amendments to 2017-2019 and 2018-2020 PSU Awards.** In light of the completion of two significant acquisitions during 2018 and other recent transactions, in February 2019, the compensation committee determined to amend the outstanding PSUs granted to Messrs. Abdun-Nabi, Kramer and Havey in 2017 (the "2017-2019 PSUs") and Messrs. Abdun-Nabi, Kramer, Havey, Lindahl and Saran in 2018 (the "2018-2020 PSUs" and, together with the 2017-2019 PSUs, the "Prior PSUs") to better align management incentives under the Prior PSUs with long-term stockholder value creation and our strategic objectives. The amendments (i) redefined the performance objective for the Prior PSUs as "adjusted net income" as a percentage of total revenue, consistent with the 2019-2021 PSU Award Agreement, (ii) increased the minimum performance level, target performance level and maximum performance level in connection with the change in performance objective to provide the Prior PSUs with more meaningful performance measures, and (iii) made certain administrative changes

to these awards to make them materially consistent with the 2019-2021 PSU Award Agreement. The compensation committee initially approved the Prior PSU awards to achieve alignment between management performance and long-term stockholder value. At the time of grant, the compensation committee evaluated the company's history, as well as its long-range objectives, and believed that net income, measured in accordance with GAAP, would be the best measure of long-term stockholder value creation. After the Prior PSU awards were granted, however, the company completed several acquisitions and licensing transactions that the compensation committee believes have generated significant value for stockholders, most notably four acquisitions over the period beginning with the fourth quarter of 2017; however, the application of GAAP to the net income calculations as it relates to these transactions includes various items that the compensation committee believes do not reflect the underlying operational success of the business, nor the long-term value created by these acquisitions. Accordingly, the compensation committee determined that an adjusted net income metric that evaluates the success of the business disregarding these items is a more accurate reflection of the value that has been generated.

- *Updates to the Proxy Peer Group.* Although there were no significant changes to the prior proxy peer group selection methodology used to determine which companies to include in the 2018 proxy peer group, the company significantly broadened the scope of companies under consideration for the 2019 proxy peer group in November 2018, commensurate with changes to the size and scope of the company's business resulting from the merger and acquisition activity described above. Although it was ultimately decided to keep the overarching approach to the peer group review methodology largely unchanged, Willis Towers Watson and management recommended adjustments to the existing peer group screening criteria, including expansion of industry type and company size, to ensure that recent business shifts are reflected in the company's proxy peer group.
- *Competitive Analysis.* The compensation committee also extensively reviewed external executive compensation pay data and related trends to ensure the company's executive compensation practices continue to align with market best practices.

Our Approach

Our compensation committee abides by the following philosophy when evaluating executive compensation:

Compensation Philosophy
<ul style="list-style-type: none">• Support a pay-for-performance culture;• Focus on achieving well-articulated goals while demonstrating leadership values;• Make compensation market-competitive to attract and retain top talent;• Reward individual contributions; and• Employ disciplined use of equity.

We continue to be committed to the ongoing review and alignment of our programs to ensure pay-for-performance while targeting our overall compensation within a range of the competitive market median.

We also have the following policies, which are applicable to the named executive officers, in furtherance of good governance practices:

Governance Policies Applicable to Our Named Executive Officers

- Anti-hedging policy;
- Recoupment policy;
- Policy against use of tax gross-ups; and
- Policy of requiring double trigger for accelerated equity vesting in the event of a change in control.

Role of Executive Officers in Determining Executive Compensation

The compensation committee approves all compensation decisions relating to our named executive officers, including our executive chairman and our chief executive officer. As part of this process, our chief executive officer, together with our executive vice president of human resources, prepares compensation recommendations for each of our named executive officers, other than the executive chairman of the board and the chief executive officer, and presents these recommendations to the compensation committee for approval. Willis Towers Watson assists in this effort, periodically meeting with management to gain input on objectives with respect to executive compensation and assisting the compensation committee in its deliberations. Compensation recommendations for the executive chairman and chief executive officer are developed and approved by the compensation committee based on data and context provided by the executive vice president of human resources and Willis Towers Watson. No named executive officer is present when the committee makes decisions regarding his own compensation.

Executive Compensation Principles

Our executive compensation programs are based on four key principles:

Key Executive Compensation Principles

- Pay should be linked to performance;
- Compensation opportunities should be competitive with relevant peer companies;
- The equity compensation program should align executive interests with those of stockholders; and
- Supplemental benefits and perquisites should be limited and used selectively in specific circumstances to attract and retain executives.

Pay should be linked to performance.

We believe that a significant portion of each senior executive's compensation should be variable. The performance of our senior executives has a significant impact on the overall performance of our company. To that end, a significant portion of the compensation opportunity provided to our senior executives is variable based on corporate and individual performance. We consider both annual cash bonuses and equity awards to be variable compensation.

Compensation opportunities should be competitive with relevant peer companies.

The compensation committee reviews compensation levels and design at peer companies as part of its decision-making process so it can set total compensation levels that it believes are competitive and aligned with the company's performance. The compensation committee generally sets target total direct compensation for our executives to be competitive with peer companies and other market data, taking into consideration the scope of job responsibilities, individual performance, internal pay equity and other relevant factors. The compensation committee's executive compensation determinations are based on its review of such factors and are informed by the experiences of the members of the compensation committee, as well as peer group data and other input provided by Willis Towers Watson.

The market data considered by the committee as part of the annual pay-setting process reflects, where applicable, compensation levels and practices for executives in comparable positions at peer group companies and also includes broader compensation survey data. The compensation committee, with assistance from Willis Towers Watson, periodically reviews the composition of our peer group. As part of such reviews, the committee considers specific criteria and recommendations regarding companies to add or remove from the peer group, as well as resulting data and industry surveys to assist in its compensation decisions, as described below:

- *2018 Benchmarking and 2018 Proxy Peer Group.* As in years past, in evaluating the appropriateness of the level of compensation of the named executive officers, other than the executive chairman, for 2018, the compensation committee continued to rely on a custom data sample from the Radford Global Life Sciences Survey comprised of publicly-traded companies that are (1) in the commercial biopharmaceutical, diagnostic and medical device industries and (2) similar to us in number of employees and prior year median revenue. This approach both serves as a long-standing historical data point and is commonly adopted within the life sciences industry. As a first step in the 2018 proxy peer group setting process, Willis Towers Watson was engaged to review the appropriateness of the previous proxy peer group and methodology adopted in 2017 to ensure continued relevance and comparability. The compensation committee reviewed the proxy peer group selection methodology followed in 2017 and decided to continue utilizing the same methodology for 2018.

Thus, in reviewing the executive market compensation analysis in January 2018 for the upcoming year, the compensation committee considered various inputs, including the 2018 Radford Global Life Sciences survey data. As in the prior year, in addition to the Radford Global Life Sciences Survey, the company also considered the Mercer SIRS Life Sciences Survey in order to provide an additional perspective of the competitive marketplace, which uses regressed data (as available) to focus specifically on the company's revenue size (the 2018 Radford Global Life Sciences Survey benchmarking data and the 2018 Mercer SIRS Life Sciences Survey benchmarking data are collectively referred to herein as the "2018 Survey Data"). Consistent with the approach followed in 2017, the compensation committee also reviewed peer group data from the proxy statements of select pharmaceutical and/or biotech companies.

To be considered for the 2018 proxy peer group, each reference company was required to meet several of the below screening criteria:

- ✓ Revenues between \$250 million and \$1.5 billion;
- ✓ Market capitalization between \$700 million and \$4.2 billion;
- ✓ Positive net income;
- ✓ Employee size between 600 and 3,600 full-time employees; and
- ✓ Research and development expense between 5% and 25% of revenue.

In November 2017, based on an assessment of the 2017 proxy peer group companies using the methodology discussed above, the compensation committee determined that, with the exception of Cepheid Inc., which had been acquired, all remaining members of the 2017 proxy peer group would remain in the 2018 proxy peer group because they met at least three (3) of five (5) of the recommended financial/size criteria. The 2018 proxy peer group includes the list of companies contained under the heading "Proxy Peer Groups—2018 Proxy Peer Group." In determining pay decisions for 2018, Willis Towers Watson utilized the most current survey data and proxy data available at the time, collecting from each data source each of the 25th, 50th and 75th percentiles for the assessed pay elements as additional points of reference for the compensation committee. The compensation committee relied on these data sources to assist in setting base salaries, target bonus percentages, target total cash compensation, long-term incentive award guidelines and target total direct compensation.

- *2019 Benchmarking and 2019 Proxy Peer Group.* In anticipation of the compensation committee's competitive market review of executive officer compensation to be conducted in early 2019, the company once again engaged Willis Towers Watson at the end of 2018 to review its proxy peer group for relevance and comparability. As a first step in the proxy peer group setting process, in November 2018, Willis Towers Watson reviewed the appropriateness of the previous proxy peer group and methodology in light of the company's evolving business strategy and recent growth through acquisitions. Although it was decided to keep the overarching approach to the peer group review methodology largely unchanged, Willis Towers Watson and management developed a number of recommended adjustments to the existing peer group screening criteria, including expanding the industry type and company size, to ensure that recent business shifts are reflected in the company's proxy peer group. For 2019, in making compensation decisions for our named executive officers, other than the executive chairman, the compensation committee relied on a custom data sample from the Radford Global Life Sciences Survey comprised of publicly-traded companies that are (1) in the commercial biopharmaceutical, diagnostic and medical device, healthcare equipment and life sciences tool and services industries and (2) similar to us in number of employees and revenue. The approach for 2019 reflects the company's recent product composition change and growth. Thus, in reviewing the executive market compensation analysis in February 2019, the compensation committee considered various inputs, including the 2019 Radford Global Life Sciences survey data. As in the prior year, in addition to the Radford Global Life Sciences Survey, the company also considered the Mercer SIRS Life Sciences Survey in order to provide an additional perspective of the competitive marketplace, which uses regressed data (as available) to focus specifically on the company's revenue size (the 2019 Radford Global Life Sciences Survey benchmarking data and the 2019 Mercer SIRS Life Sciences Survey benchmarking data are collectively referred to herein as the "2019 Survey Data"). Consistent with the approach followed in 2019, the compensation committee also reviewed peer group data from the proxy statements of the peer group companies approved in November 2018.

To be considered for the 2019 proxy peer group, the reference company was required to meet several of the below screening criteria, which reflect the company's significantly increased employee size and rapid growth in revenue and market capitalization over the past two years:

- ✓ Revenues between \$400 million and \$2.4 billion;
- ✓ Market capitalization between \$1.3 billion and \$7.8 billion;
- ✓ Positive net income;
- ✓ Employee size between 875 and 5,250 full-time employees; and
- ✓ Research and development expense between 5% and 25% of revenue.

In November 2018, based on an assessment of the 2018 proxy peer group companies using the expanded 2019 methodology discussed above, the compensation committee determined to retain seven (7) existing peers that met at least three (3) of five (5) of the recommended financial/size criteria; remove six (6) peer companies that did not meet a majority of the financial/size criteria; remove two (2) peer companies that had significant developments occur in their business within the past year that made them no longer compatible; and remove one (1) company that had been acquired.

As part of the screening process for potential replacement peer companies, a total of 41 companies that met three (3) or more of the established screening criteria were evaluated, but the final group of companies was selected to ensure that the company is generally positioned in line with the 50th percentile in terms of overall scope. Based on the advice of Willis Towers Watson, the management team recommended, and the compensation committee decided, to amend the proxy peer group that was used in 2018 to include the companies below under the heading "2019 Proxy Peer Group":

Proxy Peer Groups

2018 Proxy Peer Group	2019 Proxy Peer Group
Acorda Therapeutics, Inc.	Akorn, Inc.
Akorn, Inc.	Amneal Pharmaceuticals, Inc.
AMAG Pharmaceuticals, Inc.	Amphastar Pharmaceuticals, Inc
Amphastar Pharmaceuticals, Inc.	Bio-Techne Corporation
Bio-Techne Corporation	Bruker Corporation
Cambrex Corporation	Cambrex Corporation
Depomed, Inc.	Exelixis, Inc.
Genomic Health Inc.	Globus Medical, Inc.
Impax Laboratories Inc.	Integra LifeSciences Holdings Corporation
INSYS Therapeutics, Inc.	Masimo Corporation
Lannett Company, Inc.	NuVasive, Inc.
MiMedx Group, Inc.	Supernus Pharmaceuticals, Inc.
Myriad Genetics, Inc.	United Therapeutics Corporation
Pacira Pharmaceuticals, Inc.	Myriad Genetics, Inc.
Repligen Corporation	Repligen Corporation
Supernus Pharmaceuticals, Inc.	

In determining pay decisions for 2019, Willis Towers Watson utilized the most recent survey data and proxy data available, collecting from each data source each of the 25th, 50th and 75th percentiles for the assessed pay elements as additional points of reference for the compensation committee. The compensation committee relied on these data sources to assist in setting base salaries, target bonus percentages, target total cash compensation, long-term incentive award guidelines and target total direct compensation.

- *Executive Chairman Compensation Decisions.* In making its compensation decisions for the executive chairman, the compensation committee historically reviewed market data of a broad range of similarly-sized companies from various industries with an executive chairman role. However, that data demonstrated that companies often use very different approaches in determining compensation for the executive chairman position based on company-specific circumstances, which leads to divergent compensation practices across the reference group of companies. Moreover, executive chairman arrangements are often transitional in nature, so maintaining a consistent data set is challenging. Accordingly, in 2015, the compensation committee determined that it would consider internal parity within the executive team and

competitive market data summaries for comparable roles when determining appropriate pay recommendations for the executive chairman, in addition to considering factors such as level of involvement, scope of responsibilities, founder status, equity held and tenure, which had been historically considered. The compensation committee has continued to follow the same procedure in setting compensation for our executive chairman in 2018 and 2019.

The equity compensation program should align executive interests with those of stockholders. We believe annual equity awards align the compensation opportunity for our executives with stockholder value creation and encourage participants to focus on long-term company performance.

Beginning in 2017, we added a performance-based equity award component to our equity compensation program, a practice we continued for 2018 and 2019. The PSUs are intended to provide a performance-based element to the mix of annual equity grants. The PSUs granted in February 2017, February 2018 and February 2019 will result in the issuance of a number of shares (and cash equal to the aggregate amount of dividends paid by the company between the grant date and the date of issuance of such shares, in each case with respect to the number of shares that vest under the PSUs based on the level of achievement of the performance goals) based on the level of achievement with respect to adjusted net income as a percentage of total GAAP revenue for the 2019, 2020 and 2021 fiscal years, respectively. Achievement of the threshold performance objective, target performance objective and maximum performance objective will result in a share (and corresponding cash relating to dividends paid by the company between the grant date and the date of issuance of shares) payout of 50%, 100% and 150% of the target number of shares, respectively. Performance below the 50% threshold will result in no payout.

The PSUs approved by the compensation committee in February 2017 will vest based on the achievement of the performance goal for the 2019 fiscal year, as certified by the compensation committee following the January 1, 2017 to December 31, 2019 performance period. The PSUs approved by the compensation committee in February 2018 will vest based on the achievement of the performance goal for the 2020 fiscal year, as certified by the compensation committee following the January 1, 2018 to December 31, 2020 performance period. The PSUs approved by the compensation committee in February 2019 will vest based on the achievement of the performance goal for the 2021 fiscal year, as certified by the compensation committee following the January 1, 2019 to December 31, 2021 performance period.

Other than to the executive chairman, we grant a mix of long-term incentive vehicles to our named executive officers, such that 50% of the value of the total long-term incentive award is delivered in the form of stock options, 25% of the value is delivered in the form of RSUs that vest based on the executive remaining in service during the three-year vesting period, and 25% of the value is delivered in the form of PSUs that vest based on a combination of the achievement of adjusted net income as a percentage of total revenue at the end of a three-year performance period and the executive remaining in service with the company for a specified period. For annual grants to our executive chairman, 50% of the value is made in the form of stock options and 50% of the value is made in the form of RSUs that vest solely based on the passage of time.

Supplemental benefits and perquisites should be limited and used selectively in specific circumstances to attract and retain executives.

We use supplemental benefits, such as travel expense reimbursement, on a very limited case-by-case basis and only to the extent we consider necessary to attract or retain specific executives.

Elements of Executive Compensation

Compensation for our executives generally consists of the following elements:

- Base salary;
- Annual cash bonuses;
- Equity awards;
- Traditional benefits generally available to all employees; and
- Severance and change of control benefits.

Base Salary. We generally provide base salaries to our named executive officers within a competitive range of the 50th percentile of the applicable survey and proxy data as described above, with the exception of our executive chairman, whose base salary is determined by the range of factors addressed in detail above. While we target the market median, we recognize that the percentile for any given executive may vary below or above market median based on a variety of factors, including the executive's time in the role, scope of responsibilities, individual performance and potential future contributions to our company. In addition, we consider our overall financial performance in making decisions to adjust executive salaries. The compensation committee reviews base salaries at least annually and adjusts such salaries from time to time to realign them with market levels after taking into account individual responsibilities, performance and experience. The factors considered in making a specific adjustment to base salary may relate to a change in the emphasis placed on one or more of the factors that were used to set the initial base salary for a particular named executive officer, or reflect a new factor that arises in the course of our operations.

The compensation committee used the information described above in approving the following annual base salaries paid to our named executive officers for 2018 and 2019.

Name	2018 Base Salary	2019 Base Salary	Increase from 2018
Fuad El-Hibri ⁽¹⁾	\$ 1,023,339	\$ 1,054,040	\$ 30,701
Robert G. Kramer, Sr.	\$ 540,000	\$ 556,213 ⁽²⁾	\$ 16,213
		\$ 700,003 ⁽³⁾	\$ 160,000
Richard S. Lindahl ⁽¹⁾	\$ 500,000 ⁽⁴⁾	\$ 515,029	\$ 15,029
Adam Havey ⁽¹⁾	\$ 470,018	\$ 484,120	\$ 14,102
Atul Saran ⁽¹⁾	\$ 489,278	\$ 503,963	\$ 14,685
Daniel J. Abdun-Nabi ⁽¹⁾	\$ 814,112	\$ 838,552 ⁽⁵⁾	\$ 24,440

(1) 2019 Base salary reflects a 3% merit increase over 2018, which average is generally consistent with the increases applied for the company's broad-based employee population.

(2) Represents Mr. Kramer's full year 2019 base salary as president and chief operating officer, which will be prorated for the period from January 1, 2019 to March 31, 2019.

(3) Represents Mr. Kramer's full year 2019 base salary as president and chief executive officer, which will be prorated for the period from April 1, 2019 to December 31, 2019.

(4) Mr. Lindahl joined the company in March 2018. Accordingly, the 2018 base salary represents the full year salary that Mr. Lindahl would have received if he had been employed with the company for the entire year.

- (5) Represents Mr. Abdun-Nabi's full year 2019 base salary, which will be prorated through March 31, 2019, his retirement date.

Annual Cash Bonuses. The compensation committee has the authority under our annual bonus plan for executive officers to award annual cash bonuses to our executives. Each executive, other than our executive chairman, is eligible for an annual bonus, which is intended to motivate and compensate each executive for achieving financial and operational goals and individual performance objectives. The amount of annual bonuses that are payable under this plan is reviewed and approved by the compensation committee. Our Annual Bonus Plan utilizes a formulaic approach. Bonus amounts are determined as follows:

$$\text{Bonus} = \text{Target} \times \text{Corporate Factor} \times \text{Corporate Factor Weight} + \text{Target} \times \text{Individual Factor} \times \text{Individual Factor Weight}$$

The philosophy of the compensation committee is to set bonus targets at approximately the 50th percentile as measured against the applicable survey data and proxy peer data. No participant may earn a bonus of more than 150% of target under the annual bonus plan. The corporate factor may range from 0 to 1.5, based on our achievement of corporate goals determined by the compensation committee, and the individual factor may range from 0 to 1.5, based on an evaluation of each participant's performance of day-to-day responsibilities, behavioral competencies, and achievement of individual goals determined by the compensation committee. The compensation committee may also award discretionary bonuses outside of the framework of the bonus plan. Discretionary year-end bonuses were awarded to Robert G. Kramer, Sr. and Daniel J. Abdun-Nabi for the 2018 fiscal year performance period to recognize significant and distinct contributions toward our chief executive officer transition planning process.

In January 2019, the compensation committee met to determine the corporate factor to be applied to bonuses paid for 2018 performance. As outlined in the table below, the company accomplished at or above target performance against each of the operational goals, which indicates that the company's executive team performed very well during 2018. Accordingly, the compensation committee approved a corporate factor of 1.20. With the exception of one-time special bonuses noted above that were awarded to Messrs. Kramer and Abdun-Nabi for their extraordinary efforts on the chief executive officer transition planning process, bonuses paid to the named executive officers were calculated based on their individual goals. The individual goals of the named executive officers that participated in the annual bonus plan in 2018 were the same as the corporate goals, so the individual factor was 1.20. In reviewing our performance against goals set for 2018, the committee considered both financial and non-financial achievement of goals. In its deliberations, the committee considered the factors outlined in the table below and determined that we had achieved 120% of our overall targets.

The compensation committee reviewed our primary 2018 corporate goals and assessed the degree to which we achieved those goals, as follows:

2018 Corporate Goal	Rating	Details of Performance Against Corporate Goal
Achieve revenue of \$736 million, with a target of 6% from ex-U.S.*	Meets	<ul style="list-style-type: none"> Achieved organic revenue of approximately \$732.3 million (or 99.4% of goal); including international revenue of \$29 million, or 4% of total revenue. These amounts exclude the impact of the Adapt Pharma and PaxVax acquisitions.
Achieve adjusted net income of \$103 million.*	Meets	<ul style="list-style-type: none"> Achieved adjusted net income of approximately \$106.4 million (103% of goal); which excludes acquisition-related costs and the acquired operations of Adapt Pharma and PaxVax.
Submit EUA application for AV7909 and progress four products into advanced development.*	Exceeds	<ul style="list-style-type: none"> AV7909 — EUA application filed with the FDA on December 21, 2018. Five clinical programs are at Phase 2 stage or beyond: <ul style="list-style-type: none"> AV7909 Phase 2 is underway; first subject enrollment for Phase 3 is targeted for 2019; FLU-IGIV — Phase 2 is underway; Phase 3 is targeted for 2020; ZIKV-IG — Phase 1 enrollment completed in 2018; Phase 2 is ready for 2019; VLA1601 — Phase 1 completed; Phase 2 ready for 2019; and Progression of Trobigard toward regulatory submissions and approvals in Netherlands and Belgium.
Execute acquisition that will generate revenue within 12 months of closing.	Substantially Exceeds	<ul style="list-style-type: none"> Completed PaxVax and Adapt Pharma acquisitions: <ul style="list-style-type: none"> Integration of both acquisitions is on target; On a combined basis, both acquisitions added substantial incremental revenue; These acquisitions better position the company to reach target revenues of \$1 billion in 2019; and Are expected to be accretive to 2019 adjusted net income and adjusted EBITDA. \$1 billion in financing secured in 2018, with excess capacity available for future transactions.
Enhance organizational capabilities to reduce bureaucracy and streamline three key global business processes.	Meets	<ul style="list-style-type: none"> Established a global Operational Excellence ("OE") Organization; Enhanced manufacturing OE capabilities; and Simplified and streamlined multiple operational and compliance programs.
Implement a program that strengthens leadership and management capabilities of managers.	Meets	<ul style="list-style-type: none"> Designed and delivered two custom management/leadership programs; Provided a substantial number of our mid-level managers with coaching and feedback; Participants report increased engagement, self-awareness and ability to deliver results through others; and Managers have reported participants taking their learning out of the classroom and into their daily work.

* Goals tied to performance before impact from acquisitions.

In reviewing our performance against goals set for 2018, in addition to the accomplishments discussed above, the compensation committee also considered, among other things: business unit growth as evidenced by the completion of multiple regulatory filings and securing approvals; advancement of research and development pipelines, strengthening business operations, securing new grants and contracts and customer deliveries; corporate operational improvements to support growth by: building scalable

functions; driving operational excellence; advancing IT security systems and programs; expanding government affairs capabilities and interactions; the completion of a tax restructuring; advancing compliance systems; strengthening of our succession planning; and the strengthening of our company culture through delivery of enterprise programs that advance leadership, innovation and diversity.

Equity Awards. Stock options, RSUs and PSUs serve as the forms of long-term incentive compensation for our named executive officers, except for our executive chairman, who only receives stock options and RSUs. PSUs were included beginning in 2017 to provide a long-term performance-based element to the mix of annual equity grants. All stock options, RSUs and PSUs to named executive officers are approved by the compensation committee.

Equity awards to named executive officers in 2018 were determined using a combination of the 2018 Survey Data and peer proxy data, as applicable. The survey and proxy data sets forth a dollar value for the amount of equity grants that we may make to named executive officers. Target equity award values are intended to align with the market median, but actual grants may be positioned above or below based on individual performance.

The following calculations form the basis for the number of stock options, RSUs and PSUs granted to our named executive officers in 2018:

- The number of options is equal to 50% of the total desired long-term incentive value divided by 50% of the closing price of our common stock on the NYSE one day prior to the date of grant.
- The number of RSUs is equal to 25% (50% in the case of our executive chairman) of the desired long-term incentive value divided by the closing price of our common stock on the NYSE one day prior to the date of grant.
- For named executive officers, other than our executive chairman, the target number of PSUs is equal to 25% of the desired long-term incentive value divided by the closing price of our common stock on the NYSE one day prior to the date of grant. The actual number of units awarded will depend on the level of performance achieved under the terms of the PSU agreement. *See* prior discussion of the PSUs under the section titled "The equity compensation program should align executive interests with those of stockholders." Our executive chairman does not receive PSU grants.

We generally make an equity grant on the third trading day following the release of our financial results for the most recently completed fiscal quarter to executives and eligible employees who have been hired or promoted since the occurrence of the last equity grant. If circumstances warrant, we also may make equity grants at various other points throughout the year. The compensation committee makes all awards to executive officers, while our chief executive officer, chief financial officer, and executive chairman have been authorized to make awards to eligible employees other than executive officers.

The exercise price of all stock options we grant is equal to the fair market value of our common stock on the date of grant, which we consider to be the closing sales price of our common stock on the NYSE on the trading day immediately preceding the date of grant. Stock options and RSUs vest in three equal annual installments beginning on the day prior to the one year anniversary of the date of grant and stock options have a seven-year term. The vesting feature of our stock option and RSUs awards is intended to aid in executive retention by providing an incentive to our executives to remain in our employ during the vesting period.

The compensation committee reviews all components of each executive's compensation when determining equity awards to ensure that an executive's total compensation conforms to our overall philosophy and objectives. The compensation committee may consider the value of previously granted equity awards in making future grants, but a significant amount of value represented by previous awards or

a significant level of stock ownership will not necessarily cause the committee to forego making, or reduce the amount of, any future award.

With stock options, executives are rewarded if our stock price increases above the exercise price of the stock option. We believe that stock option awards are an effective method of motivating executives to manage our company in a manner that is consistent with the long-term interests of our stockholders. We believe that RSUs are another effective tool for motivating, retaining and incentivizing executives, particularly when used in combination with stock option awards. The stock ownership opportunities afforded by RSUs align motivation of executives with the goals of stockholders even in situations where declines in our stock price diminish the retentive or incentivizing effects of stock options. In addition, we believe that stock options and RSUs are simple for participants to understand and have engaged in training to ensure that these forms of equity-based compensation are familiar to our executives. The compensation committee introduced PSUs to the overall long-term incentive mix for named executive officers other than the executive chairman in 2017 in order to further align their interests with the long-term interests of our stockholders. The compensation committee has reviewed and will continue to monitor market trends with respect to equity incentives and may periodically evaluate the appropriateness of other forms of equity-based compensation.

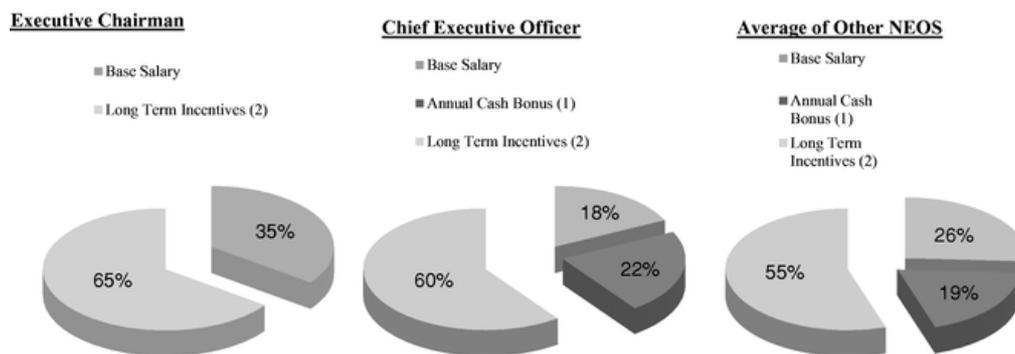
Benefits. We maintain broad-based benefits that are generally available to all employees, including health insurance, life and disability insurance, dental insurance and a 401(k) plan. Executives are eligible to participate in all of our employee benefit plans, in each case on the same basis as other employees. We provide a matching contribution for each 401(k) plan participant of 50% of the participant's elective deferrals for the year up to 6% of the participant's eligible compensation, subject to IRS limitations. The matching contribution is fully and immediately vested.

Executive Severance Arrangements. Compensation for our named executive officers includes severance and change of control arrangements, which are reflected in our Second Amended and Restated Senior Management Severance Plan (the "Senior Management Severance Plan") effective July 16, 2015, which applies broadly to any employee of the company with the title of chief executive officer, president, executive vice president, senior vice president or vice president who has been designated to participate by the Board or, with the authorization of the Board, by the chief executive officer of the company. In addition, our executive chairman remains a participant in the plan subject to the payout and benefit levels described under "— Executive Compensation — Payments Upon Termination or Change of Control." Our Senior Management Severance Plan provides for payments and benefits as a result of involuntary termination without cause or termination of employment in particular circumstances in connection with a change of control. The compensation committee periodically reviews benchmarking data to evaluate whether the benefits to be received by each executive continue to be competitive compared to our updated proxy peer group. The Senior Management Severance Plan is designed based on our understanding of market practice at comparable companies for similarly situated executives and in a manner that we believe is likely to attract and help retain high quality executive talent. The Senior Management Severance Plan is described in greater detail under "— Executive Compensation — Payments Upon Termination or Change of Control."

In making its decision to adopt the Senior Management Severance Plan, the compensation committee considered the views of Willis Towers Watson that the program was generally consistent with market practice, as well as information on the potential costs associated with the program. The triggers for benefits are based on the compensation committee's view of market practice and the compensation committee's view that some level of income continuation should be provided in the event a named executive officer's employment is terminated without cause or by the executive with good reason as those terms are defined in the Senior Management Severance Plan. The plan provides for "double-trigger" rather than "single-trigger" equity acceleration upon a change of control because the compensation committee believes that, based on its view of market practice, the vesting of outstanding equity awards should accelerate only if the executive is terminated without cause or leaves for good reason following a change of control. The plan does not provide any payments or benefits in the case of termination by an executive without good reason or in the case of termination for cause.

2018 Compensation Mix

The following pie charts set forth information regarding the actual mix of compensation for 2018 for our executive chairman, chief executive officer and our other named executive officers.



(1) Based on cash bonuses actually paid for 2018 performance.

(2) The target value delivered by long-term equity-based awards is calculated based on a modified Black-Scholes model as described further in the "Equity Awards" discussion.

Elements of 2019 Executive Compensation Decisions.

The following sections set forth a detailed discussion of specific compensation committee decisions made in the first quarter of 2019 regarding the award of bonuses to our named executive officers for fiscal year 2018 performance, the award of equity grants in February 2019 and the establishment of base salaries and target bonuses for fiscal 2019.

Fuad El-Hibri. Mr. El-Hibri serves as our executive chairman. In this role, Mr. El-Hibri is not eligible for an annual cash bonus. In February 2019, the compensation committee evaluated Mr. El-Hibri's 2018 performance and referenced the 2019 executive chairman compensation primary factors for the purpose of determining his 2019 base salary and 2019 equity award, consisting of the following:

- Board leadership and direction, including the annual board retreat and operations of the board and its committees;
- Maintenance of critical external relationships, including with Congressional and business leaders;
- Merger and acquisitions transaction guidance, including involvement in negotiations, due diligence planning, valuation analysis, structuring, deal completion and integration, which resulted in two significant full company acquisition transactions;
- Support for the executive team including mentoring and advising the chief executive officer team (senior executives) on strategy, business development, and management culture; and
- Chief executive officer transition planning and the seamless implementation of our chief executive officer succession plan.

Because many executive chairman arrangements are transitional in nature and maintaining a consistent data set can be difficult, the compensation committee continued to focus on internal parity within the executive team when determining appropriate pay recommendations for Mr. El-Hibri. However, a summary of competitive market data for comparable roles was provided for the compensation committee's reference as well.

Based on its evaluation of Mr. El-Hibri's 2018 performance and reference to the executive chairman compensation factors, the compensation committee increased Mr. El-Hibri's base salary from \$1,023,339 to \$1,054,040, a 3% increase, and approved an equity award of \$2.2 million to Mr. El-Hibri, which was granted on February 26, 2019.

Robert G. Kramer, Sr. Mr. Kramer serves as our president and chief executive officer, a position he assumed on April 1, 2019. Prior to that, he had been serving as president and chief operating officer, a position he was promoted to in March 2018. Mr. Kramer's 2018 annual salary was increased from \$518,232 to \$540,000 in March 2018 in connection with his promotion to president and chief operating officer. This March 2018 promotion also provided for an additional grant of equity awards valued at \$125,000, consisting of 50% stock options, 25% RSUs and 25% performance-based RSUs.

On January 2, 2019, the company promoted Mr. Kramer to the role of president and chief executive officer, effective as of April 1, 2019. At that time, the compensation committee, with input from Willis Towers Watson, approved an increase in Mr. Kramer's annual base salary to \$700,003 upon the commencement of his service as chief executive officer; and an increase of Mr. Kramer's target annual cash bonus percentage relating to his service as chief executive officer to 85% of his base salary, which also took effect on April 1, 2019. As chief executive officer, he is eligible for elevated severance and change in control benefits under the Senior Management Severance Plan. Willis Towers Watson's recommendations for Mr. Kramer's salary as chief executive officer reflect a combination of market data and the company's historical practice. It was decided in January 2019 that Mr. Kramer's 2018 bonus, the 2019 increase to his base salary effective on January 1, 2019 related to his role as president and chief operating officer and 2019 annual equity grant would be determined by the compensation committee in the first quarter of 2019 as part of the company's regular compensation review cycle.

In February 2019, the compensation committee referenced a combination of the 2019 Survey Data and peer proxy data in approving a target annual cash bonus percentage for Mr. Kramer of 60% of base salary. Between the prior bonus target approval in January and this target bonus approval in February, Mr. Kramer's total target bonus for 2019 is 60% through March 31, 2019 and 85% thereafter (for functioning as president and chief operating officer for the first three months of 2019 and president and chief executive officer for the remainder of the year, respectively).

Mr. Kramer's fiscal year 2018 performance was evaluated by the compensation committee, taking into account, among other factors, the following achievements:

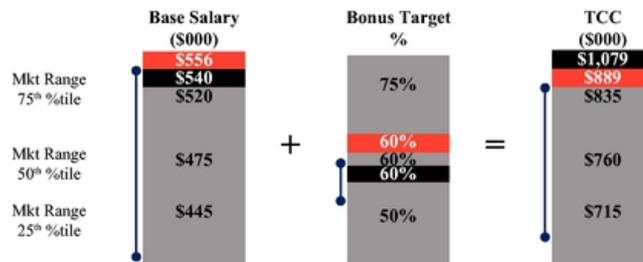
- Strong performance against 2018 corporate goals at or above targets;
- Managed merger and acquisition-related activities, including the completion of two full-company acquisitions (Adapt Pharma and PaxVax), both of which are expected to enhance the company's revenue and financial profile and better position the company to achieve its \$1 billion revenue goal by the end of 2019;
- Advanced the company's product candidate portfolio including: AV7909 EUA submission to the U.S. Food and Drug Administration (the "FDA") in fourth quarter of 2018; positioned AV7909 and FLU-IGIV for entry into Phase 3 clinical trial status, with the first subject enrollments targeted for 2019; positioned ZIKV-IG hyperimmune and VLA1601 vaccine candidates for Phase 2 clinical trial status; and progressed Trobigard toward regulatory submissions and approvals in the European Union ("EU");
- Advanced individual business unit growth as evidenced by completing several regulatory filings and securing approvals; advancing research and development pipelines, strengthening business operations, securing new grants and contracts and customer deliveries;
- Improved corporate operations to support growth by: building scalable functions; driving operational excellence; advancing IT security systems and programs; expanding government

affairs capabilities and interactions; completing tax restructuring; advancing compliance systems; and strengthening succession planning; and

- Strengthened company culture through delivery of enterprise programs advancing leadership, innovation and diversity.

Based on its evaluation of corporate performance as indicated by the corporate factor, the compensation committee determined to award Mr. Kramer a cash bonus of \$388,807 for his contributions to our performance in 2018, which was 120% of his 2018 annual incentive target opportunity, plus an additional \$150,000 special bonus to recognize significant and distinct contributions toward chief executive officer transition planning.

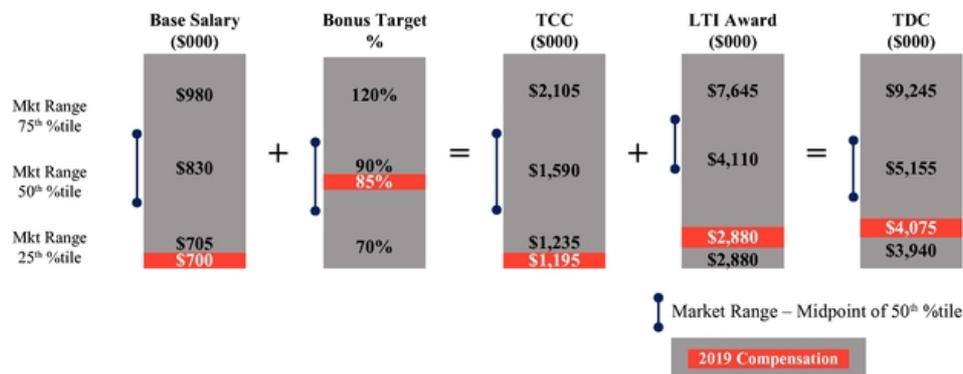
Based on his performance evaluation and the market data from the 2019 Survey Data and peer proxy data, in February 2019, the compensation committee increased Mr. Kramer's base salary as president and chief operating officer from \$540,000 to \$556,213, prorated through March 31, 2019, which reflects a 3% merit increase on an annualized basis; determined to maintain his target annual cash bonus percentage at 60% of base salary, prorated through March 31, 2019; and approved an equity award of \$2.88 million, which was granted to Mr. Kramer on February 26, 2019. The following table represents Mr. Kramer's base salary, bonus target and total cash compensation for 2018 and 2019 as compared to the 2019 Survey Data and peer proxy data and the market median range on an annualized basis prior to his recent promotion in April 2019. Specific percentiles have been approximated on a straight-line basis between the 25th and 50th and 50th and 75th percentiles. For illustrative purposes, the table below assumes that Mr. Kramer would continue in the position of chief operating officer for the entire year and does not reflect his April 1, 2019 salary increase.



* Data above is based on a full year of service and 2019 president and chief operating officer salary.



The following table represents Mr. Kramer's total target direct compensation for 2019 (assuming he commenced the position of president and chief executive officer on January 1, 2019), as compared to the 2019 Survey Data and peer proxy data and the market median range. For illustrative purposes, specific percentiles have been approximated on a straight-line basis between the 25th and 50th and 50th and 75th percentiles.



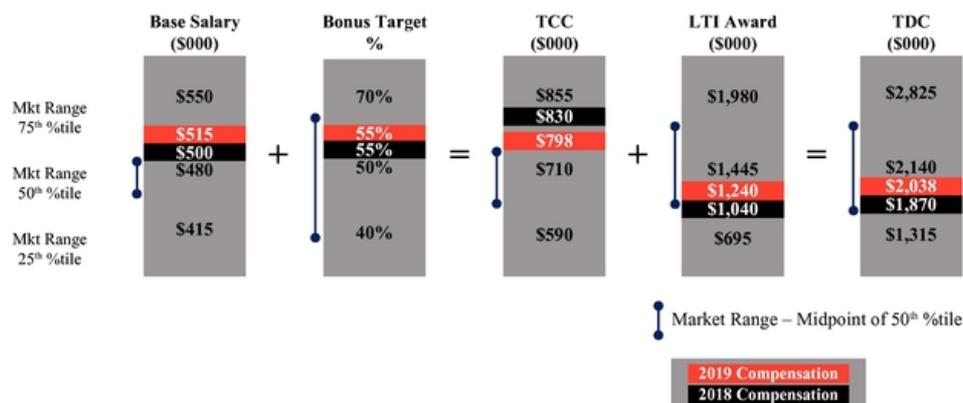
Richard S. Lindahl. Mr. Lindahl serves as our executive vice president, chief financial officer and treasurer, as well as our chief accounting officer, positions he began in March 2018. His base salary was initially set at \$500,000 and he received a new-hire equity incentive award valued at \$965,000, which consisted of 50% stock options, 25% RSUs and 25% PSUs, as well as a sign-on equity award valued at \$75,000, consisting entirely of RSUs. Upon his hiring in March 2018, the compensation committee reviewed a combination of the 2018 Survey Data and peer proxy data in approving a target annual cash bonus percentage for Mr. Lindahl of 55% of base salary. Mr. Lindahl also became immediately eligible to participate in the company's Senior Management Severance Plan upon hiring.

In February 2019, the compensation committee evaluated Mr. Lindahl's performance, taking into account, among other factors, the following achievements:

- Strong performance against 2018 corporate goals at or above targets;
- Managed merger and acquisition-related activities, including the completion of two full-company acquisitions (Adapt Pharma and PaxVax), both of which are expected to enhance the company's revenue and financial profile and better position the company to achieve its \$1 billion revenue goal by the end of 2019;
- Advanced the company's product candidate portfolio including: AV7909 EUA submission to the FDA in fourth quarter of 2018; positioned AV7909 and FLU-IGIV for entry into Phase 3 clinical trial status, with the first subject enrollments targeted for 2019; positioned ZIKV-IG hyperimmune and VLA1601 vaccine candidates for Phase 2 clinical trial status; and progressed Trobigard toward regulatory submissions and approvals in the EU;
- Advanced individual business unit growth as evidenced by completing several regulatory filings and securing approvals; advancing research and development pipelines, strengthening business operations, securing new grants and contracts and customer deliveries;
- Improved corporate operations to support growth by: building scalable functions; driving operational excellence; advancing IT security systems and programs; expanding government affairs capabilities and interactions; completing tax restructuring; advancing compliance systems; and strengthening succession planning; and
- Strengthened company culture through delivery of enterprise programs advancing leadership, innovation and diversity.

Based on its evaluation of corporate performance as indicated by the corporate factor, the compensation committee determined to award Mr. Lindahl a cash bonus of \$330,007 for his contributions to our performance in 2018, which was 120% of his 2018 annual incentive target opportunity.

Based on the performance evaluation and the market data from the 2019 Survey Data and peer proxy data, in February 2019, the compensation committee increased Mr. Lindahl's base salary from \$500,011 to \$515,029, which reflects a 3% merit increase, determined to maintain his target annual cash bonus percentage at 55% of base salary and approved an equity award of \$1.24 million to Mr. Lindahl, which was granted on February 26, 2019. The slight increase in base salary, coupled with the consistent target annual cash bonus percentage to base salary and equity award, resulted in Mr. Lindahl's total direct compensation remaining within a competitive range around market median aligned with our stated compensation philosophy. The following table represents Mr. Lindahl's total direct compensation for 2018 and 2019 as compared to the 2019 Survey Data and peer proxy data and the market median range. Specific percentiles have been approximated on a straight-line basis between the 25th and 50th and 50th and 75th percentiles for illustrative purposes only.



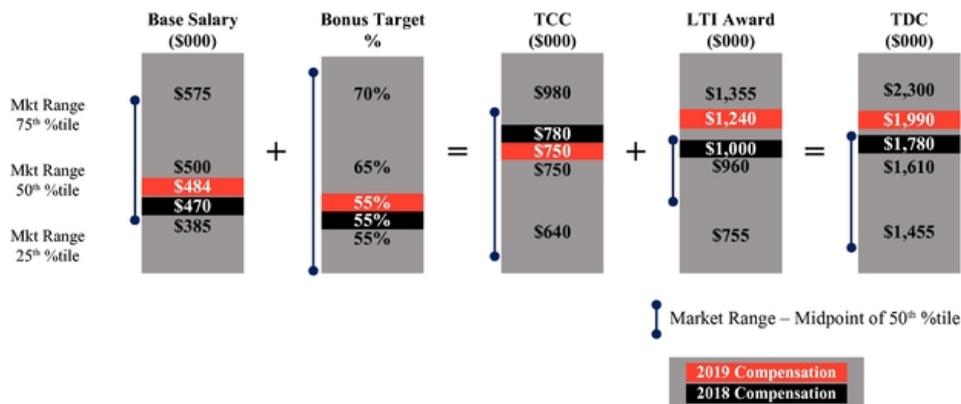
Adam Havey. Mr. Havey serves as our executive vice president, business operations. In February 2018, the compensation committee referenced a combination of the 2018 Survey Data and peer proxy data in approving a target annual cash bonus percentage for Mr. Havey of 55% of base salary. In February 2019, the compensation committee evaluated Mr. Havey's performance, taking into account, among other factors, the following achievements:

- Strong performance against 2018 corporate goals at or above targets;
- Managed merger and acquisition-related activities, including the completion of two full-company acquisitions (Adapt Pharma and PaxVax), both of which are expected to enhance the company's revenue and financial profile and better position the company to achieve its \$1 billion revenue goal by the end of 2019;
- Advanced the company's product candidate portfolio including: AV7909 EUA submission to the FDA in fourth quarter of 2018; positioned AV7909 and FLU-IGIV for entry into Phase 3 clinical trial status, with the first subject enrollments targeted for 2019; positioned ZIKV-IG hyperimmune and VLA1601 vaccine candidates for Phase 2 clinical trial status; and progressed Trobigard toward regulatory submissions and approvals in the EU;
- Advanced individual business unit growth as evidenced by completing several regulatory filings and securing approvals; advancing research and development pipelines, strengthening business operations, securing new grants and contracts and customer deliveries;
- Improved corporate operations to support growth by: building scalable functions; driving operational excellence; advancing IT security systems and programs; expanding government affairs capabilities and interactions; completing tax restructuring; advancing compliance systems; and strengthening succession planning; and

- Strengthened company culture through delivery of enterprise programs advancing leadership, innovation and diversity.

Based on its evaluation of corporate performance as indicated by the corporate factor, the compensation committee determined to award Mr. Havey a cash bonus of \$310,212 for his contributions to our performance in 2018, which was 120% of his 2018 annual incentive target opportunity.

Based on the performance evaluation and the market data from the 2019 Survey Data and peer proxy data, in February 2019, the compensation committee increased Mr. Havey's 2019 base salary from \$470,018 to \$484,120, which reflects a 3% merit increase, determined to maintain his target annual cash bonus percentage at 55% of base salary and approved an equity award of \$1.24 million, which was granted on February 26, 2019. The slight increase in base salary, coupled with the consistent target annual cash bonus percentage to base salary and equity award, resulted in Mr. Havey's total direct compensation remaining within a competitive range around market median aligned with our stated compensation philosophy. The following table represents Mr. Havey's total direct compensation for 2018 and 2019 as compared to the 2019 Survey Data and peer proxy data and the market median range. Specific percentiles have been approximated on a straight-line basis between the 25th and 50th and 50th and 75th percentiles for illustrative purposes only.



Atul Saran. Mr. Saran serves as our executive vice president, corporate development and general counsel. In February 2018, the compensation committee referenced a combination of the 2018 Survey Data and peer proxy data in approving a target annual cash bonus percentage for Mr. Saran of 50% of base salary. In February 2019, the compensation committee evaluated Mr. Saran's performance, taking into account, among other factors, the following achievements:

- Strong performance against 2018 corporate goals at or above targets;
- Managed merger and acquisition-related activities, including the completion of two full-company acquisitions (Adapt Pharma and PaxVax), both of which are expected to enhance the company's revenue and financial profile and better position the company to achieve its \$1 billion revenue goal by the end of 2019;
- Advanced the company's product candidate portfolio including: AV7909 EUA submission to the FDA in fourth quarter of 2018; positioned AV7909 and FLU-IGIV for entry into Phase 3 clinical trial status, with the first subject enrollments targeted for 2019; positioned ZIKV-IG hyperimmune and VLA1601 vaccine candidates for Phase 2 clinical trial status; and progressed Trobigard toward regulatory submissions and approvals in the EU;

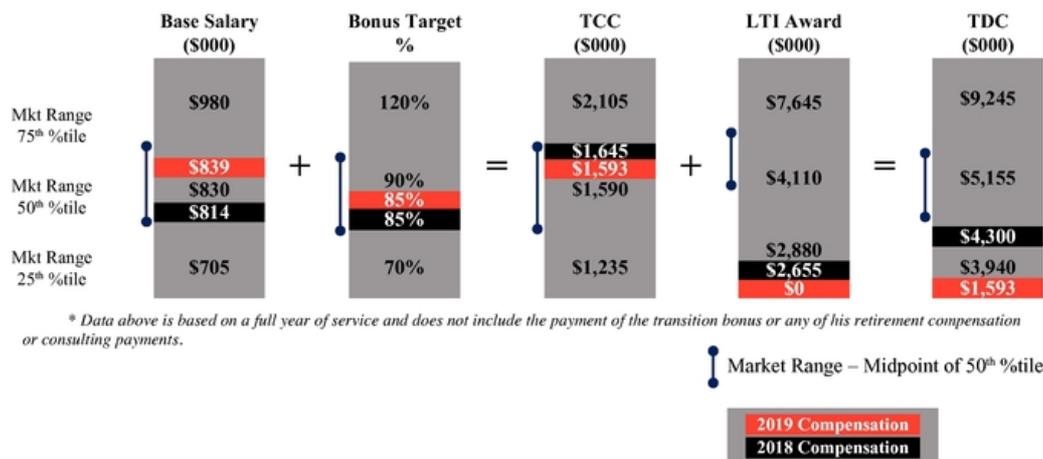
compensation committee evaluated Mr. Abdun-Nabi's 2018 performance in his role as president and chief executive officer taking into account, among other factors, the following achievements:

- Strong performance against 2018 corporate goals at or above targets;
- Managed merger and acquisition-related activities, including the completion of two full-company acquisitions (Adapt Pharma and PaxVax), both of which are expected to enhance the company's revenue and financial profile and better position the company to achieve its \$1 billion revenue goal by the end of 2019;
- Advanced the company's product candidate portfolio including: AV7909 EUA submission to the FDA in fourth quarter of 2018; positioned AV7909 and FLU-IGIV for entry into Phase 3 clinical trial status, with the first subject enrollments targeted for 2019; positioned ZIKV-IG hyperimmune and VLA1601 vaccine candidates for Phase 2 clinical trial status; and progressed Trobigard toward regulatory submissions and approvals in the EU;
- Advanced individual business unit growth as evidenced by completing several regulatory filings and securing approvals; advancing research and development pipelines, strengthening business operations, securing new grants and contracts and customer deliveries;
- Improved corporate operations to support growth by: building scalable functions; driving operational excellence; advancing IT security systems and programs; expanding government affairs capabilities and interactions; completing tax restructuring; advancing compliance systems; and strengthening succession planning; and
- Strengthened company culture through delivery of enterprise programs advancing leadership, innovation and diversity.

Based on its evaluation of corporate performance, as indicated by the corporate factor, the compensation committee determined to award Mr. Abdun-Nabi a cash bonus of \$830,394 for his contributions to our performance in 2018, which was 120% of his 2018 annual incentive target opportunity, plus an additional \$150,000 special bonus to recognize significant and distinct contributions toward chief executive officer transition planning.

Based on the performance evaluation and the market data from the 2019 Survey Data and peer proxy data, in February 2019, the compensation committee increased Mr. Abdun-Nabi's base salary from \$814,112 to \$838,552, which reflects a 3% merit increase (which was prorated for his time in the position of chief executive officer in 2019 until his retirement on March 31, 2019), and determined to increase his target annual cash bonus percentage to 90% of base salary. Mr. Abdun-Nabi did not receive an annual equity award through the named executive officer annual grant process. The following table represents Mr. Abdun-Nabi's total direct compensation for 2018 and 2019 as compared to the 2019 Survey Data and proxy data and the market median range. Specific percentiles have been approximated on a straight-line basis between the 25th and 50th and 50th and 75th percentiles for illustrative purposes only. The table below

assumes that Mr. Abdun-Nabi would continue in the position of chief executive officer for the entire year, but does not reflect his one-time \$150,000 chief executive officer transition bonus.



In connection with Mr. Abdun-Nabi's retirement, the company and Mr. Abdun-Nabi also entered into a Consulting Agreement under which the company agreed to engage Mr. Abdun-Nabi as a consultant effective as of April 1, 2019 (the "Consulting Agreement Date"). As there was no break in service between the Retirement Date and the commencement of Mr. Abdun-Nabi's engagement as a consultant to the company, during the term of the Consulting Agreement outstanding and unvested equity awards granted by the company to Mr. Abdun-Nabi will continue to vest and be exercisable in accordance with the applicable equity plans and award agreements as long as he remains a consultant to the company.

Under the Consulting Agreement, Mr. Abdun-Nabi agreed to continue to provide strategic advice and guidance at a level of approximately 40 hours per month. Mr. Abdun-Nabi receives a monthly cash consulting fee equal to 25% of the sum of (i) his monthly base salary rate as in effect as of the Retirement Date and (ii) his target bonus rate as in effect as of the Retirement Date (pro-rated to reflect the monthly rate). However, if Mr. Abdun-Nabi's services performed at the company's request exceed the anticipated 40 hours per month, the Board of Directors, in its sole discretion, may elect to provide Mr. Abdun-Nabi with additional fees or other compensation on such terms and with such conditions as the board may determine.

Furthermore, effective on the Retirement Date, Mr. Abdun-Nabi was awarded an RSU with a total value at grant of \$100,000 (based on the closing price per share of the company's common stock on the Retirement Date), which award will vest in full on the first anniversary of the Consulting Agreement Date, subject to Mr. Abdun-Nabi's continued service as a consultant to the company and the terms and conditions of the award agreement. Effective as of the first anniversary of the Consulting Agreement Date (the "Second Award Grant Date"), Mr. Abdun-Nabi will receive a second RSU award with a total value at grant of \$100,000, based on the closing price per share of the company's common stock on the Second Award Grant Date, which award will vest in full on the second anniversary of the Consulting Agreement Date, subject to Mr. Abdun-Nabi's continued service as a consultant to the company and the terms and conditions of the award agreement.

Consideration of Say-on-Pay Vote Results

Our Board of Directors and compensation committee recognize the importance of receiving regular input from our stockholders on important issues such as our executive compensation. Accordingly, for the

past seven years, our company has provided stockholders with the opportunity to vote on the executive compensation of our named executive officers on an annual basis, a frequency which was approved by stockholders at our 2011 and 2017 annual meetings.

At our 2018 annual meeting, we conducted our annual non-binding stockholder advisory vote on executive compensation, or "say-on-pay." Our stockholders approved our 2017 executive compensation, with more than 90% of voting stockholders casting their vote in favor of the say-on-pay resolution. Because most of the significant 2018 compensation decisions had already been made at the time of the vote, the committee primarily considered the results of the 2018 say-on-pay vote relating to 2017 executive compensation along with other factors when making executive compensation decisions for 2019. In making executive compensation decisions for 2019, the committee's main considerations included our stockholders' support for our executive compensation program and the committee's satisfaction with the 2018 pay mix and levels. In light of the overwhelmingly positive outcome of the 2018 say-on-pay vote, the committee continued its use of performance-based equity for named executive officers in 2019 in order to continue to align the interests of our executives with the long-term interests of our stockholders. The committee intends to continue to consider our stockholders' views when making executive compensation decisions in the future.

Other Executive Compensation Practices

Stock Ownership Requirements and Hedging Policies. Because we believe it is important for executives to have an equity stake in our company to help align their interests with those of our stockholders, in January 2012, we adopted formal stock ownership requirements for our directors and executive officers. Directors and executive officers must directly or indirectly hold stock or RSUs in our company with a value equal to the amounts set forth in the table below.

<u>Position</u>	<u>Requirement</u>
Non-employee Directors	Three times the base annual retainer ⁽¹⁾
Chief Executive Officer	Three times base salary
Other Executive Officers	One time base salary

(1) The ownership requirement for non-employee directors was revised upward from one time the base annual retainer for membership on the board in May 2014.

Our chief executive officer and executive officers have until the later of January 2012 or five years from their date of hire to satisfy the ownership requirements. Subject to certain exceptions, non-employee directors generally have until the later of five years from May 2014 or their date of their appointment to comply with the ownership requirement. Until these ownership requirements are satisfied, our directors, chief executive officer and executive officers must retain 50% of after-tax shares after vesting of RSUs or exercise of stock options. Our insider trading policy prohibits our directors and executive officers from entering into derivative transactions such as puts, calls, or short sales of our common stock, among many other actions. We provide training and distribute periodic reminders to our directors and executive officers regarding this policy.

Compensation Recovery Policy. In 2011, we adopted a compensation recovery policy pursuant to which certain incentive based compensation can be recouped from a current or former executive if the Board of Directors determines that:

- Such compensation has been awarded or received by such executive based on financial results that were achieved or operating metrics that were satisfied as a result of fraudulent or illegal conduct;
- Certain restatements of our financial results are required due to material noncompliance with financial reporting requirements by such executive; or

- Such executive engaged in intentional misconduct that contributed in any material respect to improper accounting or incorrect financial data resulting in a restatement of our financial results.

Tax and Accounting Considerations.

Section 162(m) of the Internal Revenue Code of 1986, as amended (the "Code") generally disallows a tax deduction for compensation in excess of \$1.0 million paid in any taxable year to a company's chief executive officer, chief financial officer and other officers whose compensation is required to be reported to the company's stockholders pursuant to the Exchange Act by reason of being among its three highest compensated officers. For taxable years beginning on or before December 31, 2017, certain compensation, including compensation paid to our chief financial officer and qualified performance-based compensation, was not subject to the deduction limitations. Pursuant to the Tax Cuts and Jobs Act, signed into law on December 22, 2017, or Tax Act, subject to certain transition rules, for taxable years beginning after December 31, 2017, the deduction limitation under Section 162(m) was expanded to apply to compensation in excess of \$1.0 million paid in any taxable year to our chief financial officer, and the performance-based compensation exception to the deduction limitations under Section 162(m) is no longer available. As a result, for taxable years beginning after December 31, 2017, all compensation in excess of \$1.0 million paid to the specified executives will not be deductible, unless grandfathered under transition guidance. The compensation committee has and will continue to review on a periodic basis the effect of Section 162(m) and may use its judgment to authorize compensation payments that may be in excess of the limit when it believes such payments are appropriate, after taking into consideration changing business conditions and the performance of our employees.

Sections 280G and 4999 of the Code impose certain adverse tax consequences on compensation treated as excess parachute payments. An executive is treated as having received excess parachute payments if such executive receives compensatory payments or benefits that are contingent on a change-in-control, and the aggregate amount of such payments and benefits equals or exceeds three times the executive's base amount (which is generally such executive's average compensation from us over the five years prior to the change-of-control). The portion of the payments and benefits in excess of one times base amount are treated as excess parachute payments and are subject to a 20% excise tax, in addition to any applicable federal income and employment taxes. Also, our compensation deduction in respect of the executive's excess parachute payments is disallowed. If we were to undergo a change-of-control, certain amounts received by our executives (for example, certain severance payments and amounts attributable to the accelerated vesting of stock options, RSUs and PSUs) could be excess parachute payments under Sections 280G and 4999 of the Code. As discussed below under "Payments Upon Termination or Change of Control" we do not provide executive officers with tax gross up payments in the event that Sections 280G and 4999 apply to their compensatory payments.

COMPENSATION COMMITTEE REPORT

The information contained in this report shall not be deemed to be "soliciting material" or "filed" with the SEC or subject to the liabilities of Section 18 of the Securities Exchange Act of 1934, or the Exchange Act, except to the extent that Emergent BioSolutions Inc. specifically incorporates it by reference into a document filed under the Securities Act of 1933 or the Exchange Act.

The compensation committee has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K with management. Based on this review and discussion, the compensation committee has recommended to the Board of Directors that the Compensation Discussion and Analysis be included in this proxy statement.

By the Compensation Committee of the
Board of Directors of Emergent BioSolutions Inc.

Dr. Sue Bailey
Jerome M. Hauer, Ph.D.
General George A. Joulwan
Louis W. Sullivan, M.D., Chairperson

Compensation Committee Interlocks and Insider Participation

No member of the compensation committee was at any time during 2018, or formerly, an officer or employee of the company or any of our direct or indirect subsidiaries, and no member of the compensation committee had any relationship with us during 2018 requiring disclosure under Item 404 of Regulation S-K.

In addition, none of the members of the compensation committee has or had any relationship with us during fiscal 2018 that requires disclosure in accordance with the applicable rules of the SEC relating to compensation committee interlocks and insider participation.

2018 SUMMARY COMPENSATION TABLE

The following table sets forth information for the fiscal years ended December 31, 2018, 2017 and 2016 regarding the compensation of our chief executive officer, chief financial officers, and our three other most highly compensated executive officers in the fiscal year ended December 31, 2018. We refer to these individuals throughout this proxy statement as our "named executive officers."

Name and Principal Position	Year	Salary ⁽¹⁾	Stock Awards ⁽²⁾	Option Awards ⁽³⁾	Non-equity Incentive Plan Compensation ⁽⁴⁾	All Other Compensation ⁽⁵⁾	Total
Fuad El-Hibri Executive Chairman of the Board of Directors	2018	\$ 1,047,031	\$ 957,456	\$ 688,941	\$ —	\$ 4,184	\$ 2,970,218
	2017	\$ 1,023,954	\$ 899,971	\$ 635,307	\$ —	\$ 8,250	\$ 2,567,482
	2016	\$ 963,606	\$ 899,979	\$ 557,393	\$ —	\$ 7,950	\$ 2,428,928
Robert G. Kramer, Sr. ⁽⁶⁾ President and Chief Executive Officer	2018	\$ 549,047	649,930	\$ 468,221	\$ 538,807	\$ 6,479	\$ 2,396,747
	2017	\$ 510,107	\$ 499,973	\$ 331,054	\$ 362,254	\$ 8,983	\$ 1,712,371
	2016	\$ 501,655	\$ 500,007	\$ 259,555	\$ 205,156	\$ 8,683	\$ 1,475,056
Richard S. Lindahl ⁽⁷⁾ Executive Vice President, Chief Financial Officer and Treasurer	2018	\$ 365,393	\$ 557,438	\$ 351,101	\$ 330,007	\$ 8,514	\$ 1,735,244
Adam Havey Executive Vice President, Business Operations	2018	\$ 480,728	499,974	\$ 359,784	\$ 310,212	\$ 8,383	\$ 1,799,896
	2017	\$ 448,842	\$ 262,499	\$ 173,794	\$ 264,177	\$ 8,983	\$ 1,158,295
	2016	\$ 431,019	\$ 262,487	\$ 136,269	\$ 149,611	\$ 8,683	\$ 988,069
Atul Saran ⁽⁸⁾ Executive Vice President, Corporate Development, General Counsel and Secretary	2018	\$ 488,730	\$ 527,475	\$ 379,572	\$ 293,567	\$ 8,683	\$ 1,846,254
	2017	\$ 283,179	\$ 462,457	\$ 239,976	\$ 180,380	\$ 54,562	\$ 1,220,554
Daniel J. Abdun-Nabi Former Chief Executive Officer	2018	\$ 829,160	\$ 1,327,473	\$ 955,226	\$ 980,394	\$ 8,683	\$ 4,473,508
	2017	\$ 819,029	\$ 1,199,992	\$ 847,072	\$ 806,208	\$ 8,983	\$ 3,681,284
	2016	\$ 776,629	\$ 1,199,984	\$ 743,183	\$ 456,588	\$ 8,683	\$ 3,185,067

- (1) Includes amounts deferred at the direction of the named executive officer to our 401(k) plan over 26 pay periods and amounts paid to such executive officer for accrued and unused paid time off.
- (2) The amounts included in the "Stock Awards" column reflect the grant date fair value of RSU awards and PSU awards granted to the named executive officers in the fiscal years indicated, calculated in accordance with SEC rules. For 2018, compensation included in Stock Awards included the following amounts for PSUs for Mr. Kramer, Mr. Lindahl, Mr. Havey, Mr. Saran and Mr. Abdun-Nabi, respectively: \$293,720, \$241,215, \$249,987, \$263,737 and \$663,736. For a discussion of our valuation assumptions, see Note 2 to our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2018. The grant date value of the PSU awards in 2018, assuming that the highest level of performance conditions will be achieved (150% of the grant amount) for Mr. Kramer, Mr. Lindahl, Mr. Havey, Mr. Saran and Mr. Abdun-Nabi, is: \$440,580, \$361,833, \$374,981, \$395,606 and \$995,604, respectively.
- (3) The amounts in the "Option Awards" column reflect grant date fair value of stock option awards granted to the named executive officers in the fiscal years indicated, calculated in accordance with SEC rules. For a discussion of our valuation assumptions, see Note 2 to our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2018.
- (4) The amounts reported in the "Non-Equity Incentive Plan Compensation" column reflect the amounts earned by the named executive officers under the company's Annual Bonus Plan for Executive Officers. Please see the "Annual Cash Bonuses" discussion in the "Compensation Discussion and Analysis" section of the proxy statement beginning on page 42. In certain prior years, these amounts were disclosed under the heading "Bonus" but have always represented non-equity incentive plan compensation under the Annual Bonus Plan for Executive Officers.

- (5) For 2018, represents 401(k) plan matching contributions and life insurance premiums for all except for Mr. El-Hibri, who only receives 401(k) matching contributions. For 2017, this amount also includes a \$50,000 signing bonus for Mr. Saran.
- (6) Mr. Kramer held the positions of executive vice president and chief operating officer from March 2018 to March 2019, and executive vice president, administration, chief financial officer and treasurer from September 2012 until his promotion to president and chief operating officer in March 2018.
- (7) Mr. Lindahl was hired in March 2018. Accordingly, his 2018 base salary represents partial year compensation.
- (8) Mr. Saran was hired in May 2017. Accordingly, his 2017 base salary represents partial year compensation.

Employment Agreements/Separation Arrangements

During fiscal 2018, none of our named executive officers had an employment agreement with us.

During fiscal 2018, each of our named executive officers was eligible for severance benefits pursuant to the Senior Management Severance Plan, as summarized under "— Payments Upon Termination or Change of Control."

On an annual basis, the compensation committee determines salary increases, cash bonus amounts and equity awards for our named executive officers. In addition, the compensation committee determines target annual cash bonuses as a percentage of each named executive officer's annual base salary. We do not have any formal or informal policy for the amount of executive salary and bonus in proportion to total compensation.

PAY RATIO DISCLOSURE

In August 2015, the SEC adopted a rule requiring disclosure of the ratio of the chief executive officer's annual total compensation to the total annual compensation of the median employee.

In determining the median employee, a list of all full-time and part-time employees, exclusive of our chief executive officer in 2018, Mr. Abdun-Nabi, was prepared based on active employees included in the Company's payroll system as of December 31, 2018. Salaries and wages were annualized for those employees who were not employed for the full year of 2018. Salaries and wages were ranked from lowest to highest, and the compensation (base pay, plus bonus) of the median employee was selected from the list. The total annual compensation of the median employee was then calculated in the same manner as the total compensation disclosed for Mr. Abdun-Nabi in the Summary Compensation Table shown on the previous page.

The ratio of compensation of our chief executive officer to the median employee's compensation is as follows:

Annual total compensation of Daniel J. Abdun-Nabi, Chief Executive Officer	\$ 4,473,508
Annual total compensation of the median employee ⁽¹⁾	\$ 96,445
Ratio of Chief Executive Officer to median employee compensation	46:1

- (1) Annual total compensation of the median employee consisted of base pay, bonus (paid in 2019, but earned in 2018) and 401(k) match (where applicable).

2018 GRANTS OF PLAN-BASED AWARDS

The following table sets forth information regarding each grant of an award made to each named executive officer during the fiscal year ended December 31, 2018, under any plan, contract, authorization or arrangement pursuant to which cash, securities, similar instruments or other property may be received.

Name	Grant Date	Estimated Future Payouts Under Equity Incentive Plan Awards			Number of Shares of Stock or Units ⁽¹⁾	Number of Securities Underlying Options ⁽²⁾	Exercise Price of Option Awards (\$/sh) ⁽³⁾	Closing Price of Option Awards on date of Grant (\$/sh) ⁽⁴⁾	Grant Date Fair Value of Stock and Option Awards ⁽⁵⁾
		Threshold	Target	Maximum					
Fuad El-Hibri	2/27/2018	—	—	—	19,288	—	—	\$ 957,456	
	2/27/2018	—	—	—	—	38,577	\$ 49.64	\$ 49.97	\$ 688,974
Robert G. Kramer, Sr.	2/27/2018	2,959	5,917	8,876	—	—	—	—	\$ 293,720
	2/27/2018	—	—	—	5,917	—	—	—	\$ 293,720
	2/27/2018	—	—	—	—	23,670	\$ 49.64	\$ 49.97	\$ 422,739
	5/8/2018	323	646	969	—	—	—	—	\$ 31,221
	5/8/2018	—	—	—	647	—	—	—	\$ 31,270
Richard S. Lindahl	5/8/2018	—	—	—	—	2,586	\$ 48.33	\$ 48.78	\$ 45,482
	5/8/2018	2,496	4,991	7,487	—	—	—	—	\$ 241,215
	5/8/2018	—	—	—	4,992	—	—	—	\$ 241,263
	5/8/2018	—	—	—	1,551	—	—	—	\$ 74,960
	5/8/2018	—	—	—	—	19,963	\$ 48.33	\$ 48.78	\$ 351,101
Adam Havey	2/27/2018	2,518	5,036	7,554	—	—	—	—	\$ 249,987
	2/27/2018	—	—	—	5,036	—	—	—	\$ 249,987
	2/27/2018	—	—	—	—	20,145	\$ 49.64	\$ 49.97	\$ 359,784
Atul Saran	2/27/2018	2,657	5,313	7,970	12,814	—	—	—	\$ 263,737
	2/27/2018	—	—	—	5,313	—	—	—	\$ 263,737
	2/27/2018	—	—	—	—	21,253	\$ 49.64	\$ 49.97	\$ 379,572
Daniel J. Abdun-Nabi	2/27/2018	6,686	13,371	20,057	—	—	—	—	\$ 663,736
	2/27/2018	—	—	—	13,371	—	—	—	\$ 663,736
	2/27/2018	—	—	—	—	53,485	\$ 49.64	\$ 49.97	\$ 955,226

(1) Represents shares of common stock underlying an RSU award.

(2) Represents shares of common stock issuable upon exercise of stock options.

(3) Represents the closing sales price of our common stock on the NYSE on the trading day immediately preceding the date of grant.

(4) Represents the closing sales price of our common stock on the NYSE on the date of grant.

(5) The amounts in the "Grant Date Fair Value of Stock and Option Awards" column reflect the grant date fair value of each equity award calculated in accordance with SEC rules. For a discussion of our valuation assumptions, see Note 2 to our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2018.

In 2018, equity awards granted to our named executive officers were granted under our Fourth Amended and Restated 2006 Stock Incentive Plan, which was renamed the Emergent BioSolutions Inc. Stock Incentive Plan in May 2018. Each option and RSU grant vests in three equal installments on the day prior to the first, second and third annual anniversaries of the grant date and has a term of seven years. All stock options have an exercise price equal to the closing sale price per share of our common stock on the NYSE on the trading day immediately preceding the date of grant. Under the terms of the agreements governing the RSU awards granted to our named executive officers in 2018, each named executive officer is entitled to receive, at the time of the issuance of any shares upon vesting of the applicable RSU award, an amount of cash equal to the aggregate amount of all dividends paid by us between the date of grant and

the issuance of such shares, if any. The PSUs granted to named executive officers in February 2017 and February 2018 were amended in 2019 to redefine the performance objectives for such awards, increase the minimum, target and maximum performance levels of the awards and make certain other administrative changes. See "Compensation, Discussion and Analysis — Highlights of 2018 Compensation Decisions and Recent Actions" for further details regarding our PSU grants and the amendments thereto. As so amended, these PSUs will result in the issuance of a number of shares (and cash equal to the aggregate amount of dividends paid by us between the grant date and the date of issuance of such shares, in each case with respect to the number of shares that vest under the PSUs based on the level of achievement of the performance goals) based on the level of achievement with respect to adjusted net income as a percentage of total GAAP revenue for the 2019 and 2020 fiscal years, respectively. Achievement of the threshold performance objective, target performance objective and maximum performance objective will result in a share (and corresponding cash relating to dividends paid by the company between the grant date and the date of issuance of shares) payout of 50%, 100% and 150% of the target number of shares, respectively. Performance below the 50% threshold will result in no payout.

2018 OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END

The following table sets forth information regarding unexercised stock options and unvested RSUs outstanding as of December 31, 2018, for each of the named executive officers.

Name	Option Awards				Stock Awards			
	Number of Securities Underlying Unexercised Equity Award		Option Award Exercise Price	Option Award Expiration Date	Unvested Restricted Stock Unit Awards	Market Value Unvested Restricted Stock Unit Awards	Unvested Performance Stock Unit Awards	Market Value Unvested Performance Stock Unit Awards
	Exercisable	Unexercisable						
Fuad El-Hibri	123,318	—	\$ 25.62	3/10/2021	—	\$ —	—	\$ —
	79,391	—	\$ 26.45	3/9/2022	—	\$ —	—	\$ —
	38,879	19,439(1)	\$ 30.86	2/28/2023	—	\$ —	—	\$ —
	19,582	39,165(2)	\$ 30.63	2/27/2024	—	\$ —	—	\$ —
	—	38,577(3)	\$ 49.64	2/26/2025	—	\$ —	—	\$ —
	—	—	\$ —	—	9,722(6)	\$ 576,320(11)	—	\$ —
Robert G. Kramer, Sr.	—	—	\$ —	—	19,588(7)	\$ 1,161,177(11)	—	\$ —
	—	—	\$ —	—	19,288(8)	\$ 1,143,393(11)	—	\$ —
	19,026	—	\$ 25.62	3/10/2021	—	\$ —	—	\$ —
	24,132	—	\$ 26.45	3/9/2022	—	\$ —	—	\$ —
	21,598	10,799(1)	\$ 30.86	2/28/2023	—	\$ —	—	\$ —
	10,879	21,759(2)	\$ 30.63	2/27/2024	—	\$ —	—	\$ —
Richard S. Lindahl	—	23,670(3)	\$ 49.64	2/26/2025	—	\$ —	—	\$ —
	—	2,586(4)	\$ 48.33	5/7/2025	—	\$ —	—	\$ —
	—	—	\$ —	—	5,402(6)	\$ 320,231(11)	—	\$ —
	—	—	\$ —	—	5,441(7)	\$ 322,542(11)	8,162(12)	\$ 483,843(13)
	—	—	\$ —	—	5,917(8)	\$ 350,760(11)	5,917(12)	\$ 350,760(13)
	—	—	\$ —	—	647(9)	\$ 38,354(11)	646(12)	\$ 38,295(13)
Adam Havey	—	19,963(4)	\$ 48.33	5/7/2025	—	\$ —	—	\$ —
	—	—	\$ —	—	4,992(9)	\$ 295,926	—	\$ —
	—	—	\$ —	—	1,551(9)	\$ 91,943	4,991(12)	\$ 295,866(13)
Atul Saran	20,414	—	\$ 26.45	3/9/2022	—	\$ —	—	\$ —
	11,339	5,670(1)	\$ 30.86	2/28/2023	—	\$ —	—	\$ —
	5,711	11,423(2)	\$ 30.63	2/27/2024	—	\$ —	—	\$ —
	—	20,145(3)	\$ 49.64	2/26/2025	—	\$ —	—	\$ —
	—	—	\$ —	—	2,836(6)	\$ 168,118(11)	—	\$ —
	—	—	\$ —	—	2,857(7)	\$ 169,363(11)	4,285(12)	\$ 254,015(13)
Daniel J. Abdun-Nabi	—	—	\$ —	—	5,036(8)	\$ 298,534(11)	5,036(12)	\$ 298,534(13)
	6,694	13,389(5)	\$ 36.09	8/7/2024	—	\$ —	—	\$ —
	—	21,253(3)	\$ 49.64	2/26/2025	—	\$ —	—	\$ —
	—	—	\$ —	—	6,696(10)	\$ 396,939(11)	—	\$ —
Daniel J. Abdun-Nabi	—	—	\$ —	—	1,847(10)	\$ 109,490(11)	—	\$ —
	—	—	\$ —	—	5,313(8)	\$ 314,955(11)	5,313(12)	\$ 314,955(13)
	135,063	—	\$ 25.62	3/10/2021	—	\$ —	—	\$ —
	103,435	—	\$ 26.45	3/9/2022	—	\$ —	—	\$ —
	51,837	25,919(1)	\$ 30.86	2/28/2023	—	\$ —	—	\$ —
	26,110	52,219(2)	\$ 30.63	2/27/2024	—	\$ —	—	\$ —
Daniel J. Abdun-Nabi	—	53,485(3)	\$ 49.64	2/26/2025	—	\$ —	—	\$ —
	—	—	\$ —	—	12,963(6)	\$ 768,447(11)	—	\$ —
	—	—	\$ —	—	13,059(7)	\$ 774,138(11)	19,589(12)	\$ 1,161,236(13)
	—	—	\$ —	—	13,371(8)	\$ 792,633(11)	13,371(12)	\$ 792,633(13)

(1) The unexercisable portion of this stock option award vested on February 28, 2019.

(2) Approximately one half of the unvested portion vested on February 27, 2019 and the remainder will vest on February 27, 2020.

- (3) Approximately one third of the unexercisable portion of this stock option award vested on February 26, 2019 and approximately one third of the unexercisable portion will vest on of February 25, 2020 and the remainder will vest on February 26, 2021.
- (4) Approximately one third of this stock option award will vest on May 7, 2019, and the remainder will vest on May 7, 2020 and May 7, 2021.
- (5) Approximately one half of the unvested portion will vest on August 7, 2019 and the remainder will vest on August 7, 2020.
- (6) The unvested portion of this RSU award vested on February 28, 2019.
- (7) Approximately one half of the unvested portion of this RSU award vested on February 27, 2019 and the remainder will vest on February 27, 2020.
- (8) Approximately one third of this RSU award vested on February 26, 2019 and the remainder will vest on February 26, 2020 and February 26, 2021.
- (9) Approximately one third of this RSU award will vest on May 7, 2019, and the remainder will vest on May 7, 2020 and May 7, 2021.
- (10) Approximately one half of the unvested portion will vest on August 7, 2019 and the remainder will vest on August 7, 2020.
- (11) Represents the closing price of our common stock on December 31, 2018 multiplied by the number of shares underlying the unvested portion of the RSU award as of December 31, 2018.
- (12) The unvested portion of this PSU award will vest upon satisfaction of the underlying performance criteria of adjusted net income as a percentage of revenue.
- (13) Represents the closing price of our common stock on December 31, 2018 multiplied by the number of shares underlying the unvested PSU award as of December 31, 2018.

2018 Option Exercises and Stock Awards Vested

The following table sets forth information regarding the exercise of stock options and the vesting of RSU awards during the fiscal year ended December 31, 2018, for each of the named executive officers on an aggregated basis.

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise	Value Realized on Exercise ⁽¹⁾	Number of Shares Acquired on Vest	Value Realized on Vest ⁽²⁾
Fuad El-Hibri	81,005	\$ 4,546,233	32,754	\$ 1,658,239
Robert G. Kramer, Sr.	—	\$ —	14,156	\$ 717,763
Richard S. Lindahl	—	\$ —	—	\$ —
Adam Havey	37,401	\$ 1,325,534	7,667	\$ 389,014
Atul Saran	—	\$ —	4,271	\$ 233,282
Daniel J. Abdun-Nabi	111,445	\$ 5,119,366	36,738	\$ 1,865,891

- (1) The amounts in the "Value Realized on Exercise" column are calculated based on the difference between the closing market price per share of our common stock on the date of exercise and the exercise price per share of the applicable stock option.
- (2) The amounts in the "Value Realized on Vest" column are calculated based on the closing market price per share of our common stock on the date of vest.

PAYMENTS UPON TERMINATION OR CHANGE OF CONTROL

Senior Management Severance Plan

Our compensation committee adopted the Senior Management Severance Plan for the benefit of employees with the title of executive chair, chief executive officer, president, executive vice president, senior vice president or vice president who have been designated to participate in the Senior Management Severance Plan by our Board or, with the authorization of our Board, by our chief executive officer. Our chief executive officer is authorized to designate the greater of 7% of the total number of our employees or 35 employees to be participants in the Senior Management Severance Plan at any particular time, on the basis of name, title, function or compensation level. Our chief executive officer will at all times be a participant under the Senior Management Severance Plan and shall have no less favorable rights under the Senior Management Severance Plan than any other participant. Each of the named executive officers is currently a participant in the Senior Management Severance Plan.

The Senior Management Severance Plan continues in effect through December 31, 2020. Commencing on December 31, 2020, and on December 31 of each year thereafter, the Senior Management Severance Plan will be automatically extended for additional one-year periods unless we provide 90 days' prior written notice to the participating employees that the term will not be extended.

For-cause terminations. If we terminate a participant's employment with cause, as defined in the Senior Management Severance Plan, then the participant will not be entitled to receive any compensation, benefits or rights under the Senior Management Severance Plan, and any stock options or other equity participation benefits vested on or prior to the date of the termination, but not yet exercised, will immediately terminate.

Without-cause terminations. If we terminate a participant's employment without cause, as defined in the Senior Management Severance Plan, the participant will be entitled to:

- Any unpaid base salary and accrued paid time-off through the date of termination;
- A pro-rata portion of the participant's target annual bonus in respect of the year of termination;
- Any bonus earned but unpaid as of the date of termination for any previously completed year;
- Reimbursement for any unreimbursed expenses incurred by the participant prior to the date of termination;
- An amount equal to a specified percentage of the participant's annual base salary and target bonus, as indicated in the table below;
- Employee and fringe benefits and perquisites, if any, to which the participant may be entitled as of the date of termination under our relevant plans, policies and programs; and
- Continued eligibility for the participant and his or her eligible dependents to receive employee benefits (such as medical, dental, life insurance (not to exceed one year), and pension benefits), for a stated period following the participant's date of termination as indicated in the table below, except when the provision of employee benefits would result in a duplication of benefits provided by any subsequent employer.

The following table sets forth the percentage of base salary and the stated period for continued employee benefits to which each of our named executive officers was entitled to receive had we terminated the executive officer's employment without cause on December 31, 2018.

Benefits for a Termination Without Cause		
Name	Percentage of Annual Base Salary and Bonus	Stated Period for Continued Employee Benefits
Fuad El-Hibri	200%	none
Robert G. Kramer, Sr. ⁽¹⁾	125%	15 months
Richard S. Lindahl	125%	15 months
Adam Havey	125%	15 months
Atul Saran	125%	15 months
Daniel J. Abdun-Nabi	150%	18 months

(1) These amounts for Mr. Kramer were increased to 150% of Annual Base Salary and Bonus and an 18 month Stated Period for Continued Employee Benefits, upon the effective date of his promotion to President and Chief Executive Officer on April 1, 2019.

The following table sets forth the amount of potential payments and value of benefits that each named executive officer would have received if we had terminated the executive officer's employment without cause on December 31, 2018.

Name	Termination without Cause		
	Cash Payments ⁽¹⁾	Value of Benefits ⁽²⁾	Value of Equity Awards
Fuad El-Hibri	\$ 2,046,678	\$ —	\$ —
Robert G. Kramer, Sr.	\$ 1,080,019	\$ 40,999	\$ —
Richard S. Lindahl	\$ 968,772	\$ 40,999	\$ —
Adam Havey	\$ 910,659	\$ 40,999	\$ —
Atul Saran	\$ 917,397	\$ 40,999	\$ —
Daniel J. Abdun-Nabi	\$ 2,259,161	\$ 49,199	\$ —

(1) The amounts in this column represent the aggregate amount equal to the applicable specified percentage of the named executive officer's annual base salary in effect on December 31, 2018, plus 100% of the named executive officer's target annual bonus for 2018.

(2) The amounts in this column reflect the estimated value of future premiums under our health and welfare benefit plans and life insurance program.

Change-of-control terminations. If we terminate a participant's employment (i) without cause or a participant resigns for good reason, each as defined in the Senior Management Severance Plan, in each case within 18 months following a change of control, as defined in the Senior Management Severance Plan, or (ii) prior to a change of control at the request of a party involved in the change of control, or otherwise in connection with or in anticipation of a change of control, then the participant will be entitled to:

- A cash lump sum equal to the sum of:
 - Any unpaid base salary and accrued paid time-off through the date of termination,
 - A pro-rata portion of the participant's target annual bonus in respect of the year of termination,
 - Any bonus earned but unpaid as of the date of termination for any previously completed year,

- Any unreimbursed expenses incurred by the participant prior to the date of termination, and
- An amount equal to a specified percentage of the sum of the participant's base salary and the participant's target bonus, as indicated in the table below;
- Employee and fringe benefits and perquisites, if any, to which the participant may be entitled as of the date of termination of employment under our relevant plans, policies and programs;
- Any unvested stock options, stock appreciation rights, shares of restricted stock, RSUs and other stock-unit awards held by the participant that are outstanding on the date of termination will become fully vested as of that date. In addition, the period during which any stock options held by the participant that are outstanding on that date may be exercised shall be extended to a date that is the later of the 15th day of the third month following the termination date, or December 31 of the calendar year in which the stock option would otherwise have expired if the exercise period had not been extended, but not beyond the final date the stock option could have been exercised if the participant's employment had not terminated, in each case based on the term of the option at the original grant date;
- Continued eligibility for the participant and his or her eligible dependents to receive employee benefits (such as medical, dental, life insurance (not to exceed one year), and pension benefits), for a stated period following the participant's date of termination as indicated in the table below, except when the provision of employee benefits would result in a duplication of benefits provided by any subsequent employer;
- The retention for the maximum period permitted by applicable law of all rights the participant has to indemnification from us immediately prior to the change of control and the continuation throughout the period of any applicable statute of limitations of any director's and officer's liability insurance covering the participant immediately prior to the change of control; and
- The advancement to the participant of all costs and expenses, including attorney's fees and disbursements, incurred by the participant in connection with any legal proceedings that relate to the termination of employment or the interpretation or enforcement of any provision of the Senior Management Severance Plan, for which the participant will have no obligation to reimburse us if the participant prevails in the proceeding with respect to at least one material issue or the proceeding is settled.

The following table sets forth the percentage of base salary and bonus and the stated period for continued employee benefits to which each of our named executive officers was entitled to receive under the circumstances described above in connection with a change of control on December 31, 2018.

Benefits for a Termination In Connection with a Change in Control

<u>Name</u>	<u>Percentage of Annual Base Salary and Bonus</u>	<u>Stated Period for Continued Employee Benefits</u>
Fuad El-Hibri	200%	none
Robert G. Kramer, Sr. ⁽¹⁾	200%	24 months
Richard S. Lindahl	200%	24 months
Adam Havey	200%	24 months
Atul Saran	200%	24 months
Daniel J. Abdun-Nabi	250%	30 months

- (1) These amounts for Mr. Kramer were increased to 250% of Annual Base Salary and Bonus and a 30 month Stated Period for Continued Employee Benefits, upon the effective date of his promotion to President and Chief Executive Officer on April 1, 2019.

The following table sets forth the amount of potential payments and value of benefits that each named executive officer would have received if we had terminated the executive officer's employment prior to or in connection with a change of control on December 31, 2018.

Name	Termination Prior to or in Connection with a Change of Control		
	Cash Payments ⁽¹⁾	Value of Benefits ⁽²⁾	Value of Equity Awards ⁽³⁾
Fuad El-Hibri	\$ 2,046,678	\$ —	\$ 4,927,305
Robert G. Kramer, Sr.	\$ 1,728,031	\$ 65,598	\$ 3,091,583
Richard S. Lindahl	\$ 1,550,035	\$ 65,598	\$ 902,330
Adam Havey	\$ 1,457,055	\$ 65,598	\$ 1,871,172
Atul Saran	\$ 1,467,835	\$ 65,598	\$ 1,651,708
Daniel J. Abdun-Nabi	\$ 3,765,268	\$ 81,998	\$ 7,037,373

- (1) The amounts in this column represent the aggregate amount equal to the applicable specified percentage of the named executive officer's annual base salary in effect on December 31, 2018, plus 100% of the named executive officer's target annual bonus for 2018.
- (2) The amounts in this column reflect the estimated value of future premiums under our health and welfare benefit plans and life insurance program.
- (3) The amounts in this column reflect the value of accelerated vesting of stock options and RSUs. The value of accelerated vesting of stock options was calculated by multiplying the number of shares subject to accelerated vesting under outstanding stock options by the difference between \$59.28, which was the closing market price per share of our common stock on December 31, 2018, and the per share exercise price of the applicable accelerated stock option. The value of accelerated vesting of RSUs was calculated by multiplying the number of shares subject to accelerated vesting under RSU grants by \$59.28, which was the closing market price per share of our common stock on December 31, 2018. The value of accelerated vesting of PSUs was calculated by multiplying the number of shares subject to accelerated vesting under PSU grants by \$59.28, which was the closing market price per share of our common stock on December 31, 2018, with an associated performance factor of 100%.

General provisions. All payments under the Senior Management Severance Plan will be reduced by any applicable taxes required by applicable law to be paid or withheld by us. If at the time a participant's employment is terminated, the participant is a specified employee within the meaning of Section 409A of the Internal Revenue Code ("Section 409A"), then any payments to the participant that constitute non-qualified deferred compensation within the meaning of Section 409A will be delayed by a period of six months. All such payments that would have been made to the participant during the six-month period will be made in a lump sum on the date that is six months and one day following the date of termination, and all remaining payments will commence in the seventh month following the date of termination. Our Board or any committee thereof designated by our Board is authorized to administer the Senior Management Severance Plan and has authority to adopt, amend and repeal the administrative rules, guidelines and practices relating to the Senior Management Severance Plan as it deems advisable.

As a condition to payment of any amounts under the Senior Management Severance Plan in connection with a termination without cause, the participant is required:

- For the same stated period during which we have agreed to provide continued employee benefits to the terminated employee (not to exceed one year), not to:
 - Induce, counsel, advise, solicit or encourage our employees to leave our employ or to accept employment with any other person or entity,

- Induce, counsel, advise, solicit or encourage any person who we employed within six months prior to that time to accept employment with any person or entity besides us or hire or engage that person as an independent contractor,
- Solicit, interfere with or endeavor to cause any of our customers, clients or business partners to cease or reduce its relationship with us or induce any such customer, client or business partner to breach any agreement that such customer, client or business partner may have with us, and
- Engage in or have a financial interest in any business competing with us within any state, region or locality in which we are then doing business or marketing products;
- Upon reasonable notice and at our expense, to cooperate fully with any reasonable request that may be made by us in connection with any investigation, litigation or other similar activity to which we are or may be a party or may otherwise be involved and for which the participant may have relevant information; and
- To sign and deliver a suitable waiver and release under which the participant will release and discharge us from and on account of any and all claims that relate to or arise out of our employment relationship.

EQUITY COMPENSATION PLAN INFORMATION

The following table sets forth information as of December 31, 2018, regarding securities authorized for issuance under our equity compensation plans, consisting of the Emergent BioSolutions Inc. Stock Incentive Plan and the 2012 Employee Stock Purchase Plan. Both of our equity compensation plans were adopted with the approval of our stockholders.

<u>Plan Category</u>	<u>Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights(a)</u>	<u>Wighted-Average Exercise Price of Outstanding Options, Warrants and Rights(b)</u>	<u>Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))c(1)(2)</u>
Equity compensation plans approved by stockholders (details below)		\$ 32.59	4,405,732
Stock options	1,871,468	\$ 32.59	
Restricted stock units	921,093	N/A	—
Performance based restricted stock units	71,339	N/A	—
Equity compensation plans not approved by stockholders	—	\$ —	—
Total	2,863,900		4,405,732

The total "Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans" includes 3,662,933 and 742,799, respectively, of equity available for issuance under the Emergent BioSolutions Inc. Stock Incentive Plan and our Employee Stock Purchase Plan. In addition to being available for future issuance upon exercise of stock options and vesting of RSU awards that have been or may be granted after December 31, 2018, the Emergent BioSolutions Inc. Stock Incentive Plan provides for the issuance of stock appreciation rights, restricted stock awards, PSU awards and other stock-based awards.

TRANSACTIONS WITH RELATED PERSONS

Policies and Procedures for Related Person Transactions

Our Board has adopted written policies and procedures for the review of any transaction, arrangement or relationship in which we are a participant, when the amount involved exceeds \$120,000 and one of our executive officers, directors, director nominees or 5% stockholders (or their immediate family members), each of whom we refer to as a related person, has a direct or indirect material interest.

If a related person proposes to enter into such a transaction, arrangement or relationship, which we refer to as a related person transaction, the related person must report the proposed related person transaction to our general counsel. The policy calls for the proposed related person transaction to be reviewed and, if deemed appropriate, approved by the audit committee. Whenever practicable, the reporting, review and approval will occur prior to entry into the transaction. If advance review and approval is not practicable, the audit committee will review, and, in its discretion, may ratify the related person transaction. The policy also permits the chair of the audit committee to review and, if deemed appropriate, approve proposed related person transactions that arise between audit committee meetings, subject to ratification by the audit committee at its next meeting. Any related person transactions that are ongoing in nature are reviewed annually.

A related person transaction reviewed under the policy will be considered approved or ratified if it is authorized by the audit committee after full disclosure of the related person's interest in the transaction. As appropriate for the circumstances, the audit committee will review and consider:

- The related person's interest in the related person transaction;
- The approximate dollar value of the amount involved in the related person transaction;
- The approximate dollar value of the amount of the related person's interest in the transaction without regard to the amount of any profit or loss;
- Whether the transaction was undertaken in the ordinary course of our business;
- Whether the terms of the transaction are no less favorable to us than terms that could have been reached with an unrelated third party;
- The purpose of, and the potential benefits to us of, the transaction; and
- Any other information regarding the related person transaction or the related person in the context of the proposed transaction that would be material to investors in light of the circumstances of the particular transaction.

The audit committee may approve or ratify the transaction only if the audit committee determines that, under all of the circumstances, the transaction is consistent with our best interests. The audit committee may impose any conditions on the related person transaction that it deems appropriate.

In addition to the transactions that are excluded by the instructions to the SEC's related person transaction disclosure rule, the Board has determined that the following transactions do not create a material direct or indirect interest on behalf of related persons and, therefore, are not related person transactions for purposes of this policy:

- Interests arising solely from the related person's position as an executive officer of another entity (whether or not the person is also a director of such entity) that is a participant in the transaction, where (a) the related person and all other related persons own in the aggregate less than a 10% equity interest in such entity, (b) the related person and his or her immediate family members are not involved in the negotiation of the terms of the transaction and do not receive any special benefits as a result of the transaction, (c) the amount involved in the transaction equals less than the greater of \$1 million dollars or 2% of the annual gross revenues of the other entity that is a

party to the transaction, and (d) the amount involved in the transaction equals less than 2% of our annual gross revenues; and

- A transaction that is specifically contemplated by provisions of our charter or bylaws.

The policy provides that transactions involving compensation of executive officers shall be reviewed and approved by the compensation committee in the manner specified in its charter.

All of the transactions described below followed the foregoing policies and procedures, and there were no related person transactions in 2018 with respect to which these policies and procedures were not followed.

Indemnification Agreements

We have entered into an indemnification agreement with each of our directors and executive officers. Our form of indemnification agreement, and our certificate of incorporation and bylaws, require us to indemnify and advance expenses to these persons to the full extent permitted by Delaware law. We also intend to enter into an indemnification agreement with each of our future directors and executive officers.

Relationships with Fuad El-Hibri

Mr. El-Hibri is our founder, executive chairman and also owns or controls greater than 5% of our outstanding common stock. We have entered into the following transactions in which Mr. El-Hibri has a direct or indirect interest, in each case as indicated below.

Registration Rights

In September 2006, we granted registration rights with respect to shares of our common stock to certain of our principal stockholders. The following table sets forth the number of shares of our common stock subject to these registration rights that are held by our 5% stockholders and their affiliates as of March 28, 2019.

<u>Name</u>	<u>Number of Shares of Common Stock</u>
Intervac, L.L.C.	4,344,250
BioVac, L.L.C.	1,524,155

Demand registration rights. Subject to specified limitations, holders of these registration rights may require that we register all or part of our common stock subject to the registration rights for sale under the Securities Act of 1933. These holders may demand registration of our common stock so long as the aggregate offering price to the public of the shares requested to be registered is at least \$25,000,000. We are required to effect only one demand registration, subject to specified exceptions.

Incidental registration rights. If we propose to register any of our common stock under the Securities Act of 1933, subject to specified exceptions, either for our own account or for the account of other security holders, holders of registration rights are entitled to notice of the registration and to include shares of common stock that are subject to the registration rights in the registered offering. In August 2018, we filed an automatic shelf registration statement, which immediately became effective under SEC rules. For so long as we continue to satisfy the requirements to be deemed a "well-known seasoned issuer" under SEC rules, this shelf registration statement, effective until August 2021, would provide for a secondary offering of these shares from time to time.

Limitations and expenses. With specified exceptions, the right to include shares in a registration is subject to the right of underwriters for the offering to limit the number of shares included in the offering. We are required to pay one-half of all fees, costs and expenses of any demand registration, other than underwriting discounts and commissions.

E-N-G Mobile Systems, Inc.

In May 2018, we entered into an agreement with E-N-G Mobile Systems, Inc. (together with its successor entity, "ENG") to assist in building out a prototype of a mobile manufacturing unit. At all relevant times, either the son of Mr. El-Hibri or Mr. El-Hibri owned a majority controlling interest in ENG. The total consideration paid to ENG under this agreement was approximately \$610,000. ENG delivered the prototype envisioned under the agreement in December 2018.

Intergen LLC

In November 2008, we entered into an amended and restated marketing agreement with Intergen N.V. that amended and restated a prior amended and restated marketing agreement between the parties, which was subsequently assigned to Intergen LLC on September 10, 2012 (the "Marketing Agreement"). Yasmine Gibellini was the chairperson and a major stockholder of Intergen N.V. and the General Manager of Intergen, LLC, and she is also the sister of Mr. El-Hibri. Under the Marketing Agreement, we appointed Intergen as our non-exclusive marketing representative for the sale and promotion of a number of products in Saudi Arabia, Qatar and the United Arab Emirates, unless the export of such products to any of these countries became prohibited by the U.S. government. We had agreed to pay Intergen fees based on net sales of products and to reimburse Intergen for specified out-of-pocket expenses. No fees were ever paid to Intergen under this agreement and, in August 2018, we and Intergen LLC mutually agreed to terminate the Marketing Agreement.

Relationships with Seamus Mulligan

Mr. Mulligan, who was appointed as a director effective March 2019, is the former CEO and founder of Adapt Pharma, which we acquired in 2018, and as such is party to several transactions with us. Mr. Mulligan previously received \$35,105,205 in cash, may receive possible future escrow and milestone payments up to an additional \$9,475,060 in cash, and received 48,572 shares of our common stock valued at approximately \$2,935,692 in connection with our acquisition of Adapt Pharma on October 15, 2018 (the "Acquisition"). In addition, Mr. Mulligan and his family own Nerano Pharma Ltd., which received \$393,910,541 in cash, and may receive possible future escrow and milestone payments up to an additional \$106,430,917 in cash, and received 545,590 shares of the company's common stock, valued at approximately \$32,975,460.

In addition to this Acquisition-related consideration, Mr. Mulligan currently owns a property located at 45 Fitzwilliam Square, Dublin 2, Ireland, which is leased to Adapt Pharma, as tenant, under a ten-year lease agreement, effective September 1, 2016, and may be terminated at any time by Adapt Pharma upon entering into a new lease in the city of Dublin for a termination fee equal to approximately one year's rent. The cost of the lease is approximately \$190,797 per annum, paid in Euros. Mr. Mulligan received approximately \$306,847 under this lease between January 1, 2018 and the date of this proxy statement and we currently anticipate terminating the lease and paying the termination fee upon selection of a new Dublin office. Mr. Mulligan is also a party to a consulting agreement that commenced upon the closing of the Acquisition, which terminated on March 19, 2019, under which he received approximately \$140,259 paid in Euros. In addition, his daughter was an employee of Adapt Pharma under which she received total compensation from Adapt Pharma of \$177,011, paid in Euros, between January 1, 2018 and her last day of employment on November 30, 2018. The conversion to U.S. dollars for the amounts listed above was calculated based on the exchange rate as of March 31, 2019. Commencing on January 21, 2019, Mr. Mulligan's son began an internship with Adapt Pharma under which he is paid \$36,000 annually. His son will have received approximately \$5,625 from Adapt Pharma from this internship as of the date of this proxy statement.

ADDITIONAL MATTERS

Other Matters

Our Board has no knowledge of any other matters that may come before the meeting. However, if any other matters are properly presented at the meeting, it is the intention of the persons named in the accompanying proxy to vote, or otherwise act, in accordance with their judgment on those matters.

Requests for Copies of Annual Report

We will provide without charge a copy of our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, including financial statements and schedules, to each of our stockholders of record on March 28, 2019, and to each beneficial owner of common stock on that date, upon receipt of a written request for the Form 10-K mailed to our offices, Emergent BioSolutions Inc., 400 Professional Drive, Suite 400, Gaithersburg, MD 20879, Attention: Investor Relations, telephone: (240) 631-3200. In the event that exhibits to the Form 10-K are requested, a fee will be charged for reproduction of the exhibits. Requests from beneficial owners of common stock must set forth a good faith representation as to such ownership. Our filings with the SEC are available without charge on our website at www.emergentbiosolutions.com as soon as reasonably practicable after they are filed.

Stockholder Proposals for the 2020 Annual Meeting

Any stockholder who intends to present a proposal at the company's 2020 annual meeting, and who wishes to have the proposal included in the company's proxy statement for that meeting (the "2020 Proxy Statement"), must deliver the proposal to the company's Corporate Secretary no later than December 14, 2019. Any proposal received after this date will be considered untimely and may be excluded from the 2020 Proxy Statement. A proposal must satisfy the rules and regulations of the SEC to be eligible for inclusion in the proxy statement for that meeting.

A stockholder may present a proposal that is a proper subject for consideration at an annual meeting, even if the proposal is not submitted by the deadline for inclusion in the proxy statement. To do so, the stockholder must comply with the procedures set forth in the company's by-laws. The by-laws require that a stockholder who intends to present a proposal at an annual meeting of stockholders submit the proposal to the Corporate Secretary not fewer than 90 and not more than 120 days before the anniversary of the date of the previous year's annual meeting. To be eligible for consideration at the 2020 annual meeting, such a proposal and any nominations for director must be received by the Corporate Secretary between January 24, 2020, and February 23, 2020. This advance notice period is intended to allow stockholders an opportunity to consider all business and nominees expected to be considered at the meeting. Any such proposal received after this date may be considered untimely and may be excluded.

All submissions to, or requests from, the Corporate Secretary should be made to Emergent BioSolutions Inc., Attention: Corporate Secretary, 400 Professional Drive, Suite 400, Gaithersburg, MD 20879.

Sincerely,



Fuad El-Hibri
Executive Chairman of the Board of Directors

Gaithersburg, Maryland
April 12, 2019

OUR BOARD OF DIRECTORS HOPES THAT YOU WILL ATTEND THE ANNUAL MEETING. WHETHER OR NOT YOU PLAN TO ATTEND, YOU ARE URGED TO VOTE YOUR PROXY AS PROMPTLY AS POSSIBLE. IF YOU ATTEND THE MEETING, YOU MAY REVOKE YOUR PROXY AND VOTE IN PERSON.

EMERGENT BIOSOLUTIONS INC.
400 PROFESSIONAL DRIVE, SUITE 400
GAITHERSBURG, MD 20879

ELECTRONIC VOTING INSTRUCTIONS

You can vote by Internet or telephone
 Instead of mailing your proxy, you may choose to vote online or by telephone
Proxies submitted by the Internet or telephone must be received by 11:59 p.m. EDT May 22, 2019



VOTE BY INTERNET

- Go to proxyvote.com
- Follow the instructions on the secured site
- Have your proxy card in hand when you access the web site.

ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS

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



VOTE BY PHONE

- Call 1-800-690-6903 (The call is toll-free within the US and Canada.)
- Follow the instructions on the recorded message
- Have your proxy card in hand when you call and then follow the instructions.



VOTE BY MAIL

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

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

E72178-P21991

KEEP THIS PORTION FOR YOUR RECORDS
 DETACH AND RETURN THIS PORTION ONLY

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

EMERGENT BIOSOLUTIONS INC.

The Board of Directors recommends a vote "FOR" the election of all Class I director nominees and the Class II director nominee.

1. To elect three Class I directors to hold office for a term expiring at our 2022 Annual Meeting of Stockholders and one Class II director for a term expiring at our 2020 Annual Meeting of Stockholders and until their respective successors are duly elected and qualified.

Nominees Class I:

	For	Against	Abstain
1a. Fuad El-Hibri	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1b. Ronald B. Richard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1c. Kathryn C. Zoon, Ph.D.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Nominee Class II:

1d. Seamus Mulligan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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The Board of Directors recommends a vote "FOR" Proposals 2 and 3.

	For	Against	Abstain
2. To ratify the appointment by the audit committee of Ernst & Young LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2019.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Advisory vote to approve executive compensation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name by authorized officer.

Signature [PLEASE SIGN WITHIN BOX]	Date

Signature (Joint Owners)	Date

**ANNUAL MEETING OF STOCKHOLDERS OF
EMERGENT BIOSOLUTIONS INC.
MAY 23, 2019**

Dear Stockholder:

Please take note of the important information accompanying this proxy card. There are matters related to the operation of Emergent BioSolutions Inc. that require your prompt attention. Your vote counts, and you are strongly encouraged to exercise your right to vote the shares.

Please vote these shares using one of the methods described on the reverse side of this proxy card. Thank you in advance for your prompt consideration of these matters.

Sincerely,

Board of Directors of Emergent BioSolutions Inc.

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting:
The Notice of the Meeting, Annual Report on Form 10-K, Proxy Statement and Proxy Card are available at
<http://materials.proxyvote.com/29089Q>

E72179-P21991

**EMERGENT BIOSOLUTIONS INC.
400 PROFESSIONAL DRIVE, SUITE 400
GAITHERSBURG, MD 20879**

**THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS
FOR THE 2019 ANNUAL MEETING OF STOCKHOLDERS**

The undersigned, having received the Notice of Meeting and Proxy Statement and revoking all prior proxies, hereby appoints Robert G. Kramer, Sr., Richard S. Lindahl and Atul Saran, and each of them, as proxies, each with full power of substitution, and hereby authorizes each of them to represent and vote, as designated on the reverse side, all shares of common stock of Emergent BioSolutions Inc. (the "Company") held of record by the undersigned as of March 28, 2019, at the Annual Meeting of Stockholders to be held on May 23, 2019, at 9:00 a.m., Eastern Daylight Time at the Gaithersburg Marriott Washingtonian Center, 9751 Washingtonian Boulevard, Gaithersburg, Maryland 20878, and at any adjournment or postponement thereof, and, in their discretion, on any matters properly presented for a vote at the Annual Meeting.

THIS PROXY, WHEN PROPERLY EXECUTED, WILL BE VOTED AS DIRECTED. IF NO DIRECTION IS GIVEN WITH RESPECT TO A PARTICULAR PROPOSAL, THIS PROXY WILL BE VOTED "FOR" THE ELECTION OF ALL CLASS I DIRECTOR NOMINEES AND THE CLASS II DIRECTOR NOMINEE, AND "FOR" PROPOSALS 2 AND 3.

(Continued and to be signed on the reverse side)