

INTERMOLECULAR INC
Form DEF 14A
April 05, 2017

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
INTERMOLECULAR, 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:

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(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):

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(1) Amount Previously Paid:

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

(3) Filing Party:

(4) Date Filed:

April 5, 2017

Dear Fellow Stockholders:

We are pleased to invite you to our 2017 Annual Meeting of Stockholders, which will take place on Tuesday, May 16, 2017 at 9:00 a.m., Pacific Time, at the offices of Latham & Watkins LLP, 140 Scott Drive, Menlo Park, California 94025. Annual meetings play an important role in maintaining communications and understanding among our management, board of directors and stockholders, and we hope you will join us.

On the pages following this letter you will find the Notice of Annual Meeting of Stockholders, which lists the items of business to be considered at the Annual Meeting, and the proxy statement, which describes the items of business listed in the notice and provides other information you may find useful in deciding how to vote.

For our Annual Meeting, we have elected to use the Internet as our primary means of providing our proxy materials to stockholders. Consequently, most stockholders will not receive paper copies of our proxy materials. We will instead send to our stockholders a Notice of Internet Availability of Proxy Materials. The Notice of Internet Availability of Proxy Materials contains instructions on how to access our proxy statement and our 2016 Annual Report to Stockholders, which contains, among other things, our 2016 audited consolidated financial statements, and instructions on how you can vote using the Internet. The Notice of Internet Availability of Proxy Materials also includes instructions on how you can request and receive, free of charge, a printed copy of our proxy materials, including our 2016 Annual Report, notice of our Annual Meeting, our proxy statement and a proxy card. All stockholders who do not receive a Notice of Internet Availability of Proxy Materials will receive a paper copy of the proxy materials, including our 2016 Annual Report, by mail. The electronic delivery of our proxy materials will reduce our printing and mailing costs and minimize the environmental impact of the proxy materials.

If you are a stockholder of record, please follow the instructions on the Notice of Internet Availability of Proxy Materials to vote on the matters to be considered at the Annual Meeting if you do not plan to attend in person. If you received a printed copy of our proxy materials, to vote, simply complete, sign and date your proxy card and mail it in the enclosed postage-paid envelope. If your shares are held in "street name" — that is, held for your account by a bank, brokerage firm or other intermediary — you should obtain instructions from the bank, brokerage firm or other intermediary that you must follow for your shares to be voted.

The ability to have your vote counted at the Annual Meeting is an important stockholder right. Regardless of the number of shares you hold, and whether or not you plan to attend the Annual Meeting, we hope that you will promptly cast your vote.

Thank you for your ongoing support and continued interest in Intermolecular.

Sincerely,

/s/ Christian F. Kramer

CHRISTIAN F. KRAMER

President and Chief Executive Officer

INTERMOLECULAR, INC.

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

To be Held on Tuesday, May 16, 2017

Notice is hereby given that the 2017 Annual Meeting of Stockholders will be held at the offices of Latham & Watkins LLP, 140 Scott Drive, Menlo Park, California 94025, on Tuesday, May 16, 2017 at 9:00 a.m., Pacific Time, for the following purposes:

1. To elect the three nominees identified in the attached proxy statement as members of our board of directors to serve as Class III directors for a term of three years;
2. To approve, on a non-binding, advisory basis, the compensation of our named executive officers as described in the attached proxy statement;
3. To ratify the appointment of Armanino LLP as our independent registered public accounting firm for the year ending December 31, 2017; and
4. To transact other business, if any, that may properly come before the Annual Meeting or any adjournment of the Annual Meeting.

Stockholders of record at the close of business on Wednesday, March 22, 2017 are entitled to receive this notice of our Annual Meeting and to vote at the Annual Meeting and at any adjournments of the meeting.

The foregoing items of business are more fully described in the proxy statement accompanying this Notice. This Notice of Annual Meeting, our 2016 Annual Report and our proxy statement and form of proxy are first being made available to stockholders on or about April 5, 2017.

Your vote is important. Whether or not you plan to attend the Annual Meeting, please vote by telephone or Internet by following the voting procedures described in the Notice of Internet Availability of Proxy Materials or, if you received printed proxy materials and wish to vote by mail, by promptly completing, dating and signing the enclosed proxy card and returning it in the accompanying envelope. If you mail the proxy card in the United States, postage is prepaid. You may revoke your proxy if you decide to attend the Annual Meeting and wish to vote your shares in person.

By Order of the Board of Directors

/s/ Bill Roeschlein

Chief Financial Officer

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INTERMOLECULAR, INC.

3011 N. First Street

San Jose, California 95134

PROXY STATEMENT

For our Annual Meeting of Stockholders to be held on May 16, 2017

Intermolecular, Inc., a Delaware corporation (which is referred to as "we," "us," "the company" or "Intermolecular" in this proxy statement), is sending you this proxy statement and proxy card in connection with the solicitation of proxies by our company's board of directors for use at our 2017 Annual Meeting of Stockholders, which will be held on Tuesday, May 16, 2017 at 9:00 a.m., Pacific Time, at the offices of Latham & Watkins LLP, 140 Scott Drive, Menlo Park, California 94025. If the Annual Meeting is adjourned for any reason, then the proxies may be used at any adjournments of the Annual Meeting. You may obtain directions to the location of the Annual Meeting by viewing them on our website, ir.intermolecular.com, or by contacting Investor Relations at the contact information listed below.

This Notice of Annual Meeting, this proxy statement, the enclosed proxy card and our 2016 Annual Report on Form 10-K are first being made available to our stockholders on or about April 5, 2017.

Important Notice Regarding the Availability of Proxy Materials for the 2017 Annual

Meeting of Stockholders to be Held on May 16, 2017:

This proxy statement and the 2016 Annual Report are available for viewing, printing and downloading at www.proxyvote.com.

Our 2016 Annual Report is available on the "Investors" section of our website at www.intermolecular.com. Alternatively, if you would like us to send you a copy of our Annual Report, without charge, please contact:

Intermolecular, Inc.

3011 N. First Street

San Jose, California 95134

Attention: Investor Relations

If you would like us to send you a copy of the exhibits listed on the exhibit index of the 2016 Annual Report, we will do so upon your payment of our reasonable expenses for furnishing a requested exhibit.

Certain documents referenced in this proxy statement are available on our website at www.intermolecular.com. We are not including the information contained on our website, or any information that may be accessed by links on our website, as part of, or incorporating it by reference into, this proxy statement.

INFORMATION ABOUT THE ANNUAL MEETING AND VOTING

What is the purpose of the Annual Meeting?

At the 2017 Annual Meeting of Stockholders, stockholders will consider and vote on the following matters:

- The election of the three nominees identified in this proxy statement as members of our board of directors to serve as Class III directors for a term of three years;
- The approval, on a non-binding, advisory basis, of the compensation of our named executive officers as described in this proxy statement (a "say-on-pay" vote);
- The ratification of the appointment of Armanino LLP as our independent registered public accounting firm for the year ending December 31, 2017; and
- The transaction of other business, if any, that may properly come before the Annual Meeting or any adjournment of the meeting.

Who is entitled to vote?

To be able to vote on the above matters, you must have been a stockholder of record at the close of business on March 22, 2017, the record date for the Annual Meeting. The aggregate number of shares entitled to vote at this meeting is 49,572,201 shares of our common stock, which is the number of shares that were issued and outstanding as of the record date.

How many votes do I have?

Each share of our common stock that you owned on the record date entitles you to one vote on each matter that is voted on at the Annual Meeting.

Is my vote important?

Your vote is important regardless of how many shares you own. Please take the time to read the instructions below and vote. Choose the method of voting that is easiest and most convenient for you and, if you vote by mail, please cast your vote as soon as possible.

How may I vote?

Stockholder of Record (Shares Registered in Your Name): If you are a stockholder of record, which means that your shares are registered in your own name, not in "street name" by a bank, brokerage firm or other intermediary, then you can vote in one of the following four ways:

- You may vote via the Internet or by phone. To vote via the Internet or by phone, follow the instructions provided in the Notice of Internet Availability of Proxy Materials. If you vote by telephone or via the Internet, you do not need to return a proxy card by mail. Internet and telephone voting are available 24 hours a day. Votes submitted by telephone or through the Internet must be received by 11:59 p.m. Eastern Time on May 15, 2017.
 - You may vote by mail. If you have received printed proxy materials by mail and would like to vote by mail, you need to complete, date and sign the proxy card that accompanies this proxy statement and promptly mail it to Broadridge Financial Solutions, Inc. in the enclosed postage-paid envelope so that it is received prior to the Annual Meeting. You do not need to put a stamp on the enclosed envelope if you mail it from within the United States. The persons named in the proxy card will vote the shares you own in accordance with your instructions on the proxy card you mail. If you return the proxy card, but do not give any instructions on a particular matter to be voted on at the Annual Meeting, the persons named in the proxy card will vote the shares you own in accordance with the recommendations of our board of directors. Our board of directors recommends that you vote FOR each of proposals 1, 2 and 3.

Broadridge Financial Solutions, Inc. must receive your proxy card no later than May 15, 2017, the day before the Annual Meeting, for your proxy and your vote to be counted.

•You may vote in person. If you plan to attend the Annual Meeting, you may vote by delivering your completed proxy card in person or by completing and submitting a ballot, which will be provided at the meeting.

Beneficial Owner (Shares Held in "Street Name"): "Street name" refers to when the shares of which you are beneficial owner are registered in the name of your broker, bank or other agent. If the shares you own are held in "street name" by a bank, brokerage firm or other intermediary, then your bank, brokerage firm or other intermediary, as the record holder of your shares, is required to vote your shares according to your instructions. In order to vote your shares, you will need to follow the instructions your bank, brokerage firm or other intermediary provides you. Many banks, brokerage firms and other intermediaries also offer the option of voting over the Internet or by telephone, instructions for which would be provided by your bank, brokerage firm or other intermediary.

If you are the beneficial owner of shares held in "street name" by a broker, the broker, as the record holder of the shares, is required to vote those shares in accordance with your instructions. "Broker non-votes" are shares that are held in "street name" by a bank, brokerage firm or other intermediary that indicates on its proxy that it does not have discretionary authority to vote on a particular matter. Such broker non-votes occur when a beneficial owner of shares held in "street name" do not give instructions to the broker or nominee holding the shares as to how to vote on matters that are deemed non-routine. If you own shares through a nominee, such as a broker, but you do not give instructions to your broker, the broker will be able to vote your shares with respect to certain "routine" items, but will not be allowed to vote your shares with respect to certain "non-routine" items and your shares will be treated as "broker non-votes."

The proposal to elect the three nominees to serve as Class III directors, the say-on-pay vote and the frequency vote are considered to be non-routine items under applicable rules, which means that if you do not give instructions to your broker, your broker will not be able to vote your shares in its discretion on these proposals and your shares will be treated as "broker non-votes." We urge you to provide voting instructions to your broker so that your votes may be counted.

The proposal to ratify the appointment of Armanino LLP as our independent registered public accounting firm for the year ending December 31, 2017 is considered to be a routine item under applicable rules. Accordingly, your bank, brokerage firm or other intermediary may exercise its discretionary authority with respect to this proposal if you do not provide voting instructions.

If you wish to attend the Annual Meeting to personally vote your shares held in "street name," you will need to obtain a proxy card from the holder of record (i.e., your bank, brokerage firm or other intermediary).

May I change my vote after I have mailed my proxy card?

Yes. If you are a stockholder of record, you may change your vote and revoke your earlier proxy at any time before it is exercised by taking one of the following actions:

- signing and returning another proxy card with a later date;
- giving our corporate secretary a written notice that you want to revoke your proxy; or
- attending the meeting, notifying our corporate secretary that you are present and then voting in person.

Your attendance at the meeting alone will not revoke your proxy.

If you own shares in "street name," your bank, brokerage firm or other intermediary should provide you with appropriate instructions for changing your vote.

What constitutes a quorum?

In order for business to be conducted at the Annual Meeting, our bylaws require that a quorum must be present. A quorum consists of the holders of a majority of the shares of our common stock issued and outstanding and entitled to

vote at the meeting, that is, at least 24,786,101 shares.

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Shares of our common stock present in person or represented by proxy (including shares that reflect abstentions, "broker non-votes" and votes withheld for director nominees) will be counted for the purpose of determining whether a quorum exists.

If a quorum is not present, the Annual Meeting will be adjourned until a quorum is obtained.

What vote is required for each item?

Election of Directors (Proposal 1): The director nominees identified in this proxy statement receiving a plurality, or the highest number, of votes cast at the Annual Meeting, regardless of whether that number represents a majority of the votes cast, will be elected. Neither abstentions nor broker non-votes will be counted in determining which nominees have received a plurality of votes cast since neither represents votes cast for or against a candidate.

Advisory Say-on-Pay Vote (Proposal 2): The affirmative vote of a majority of the votes cast by the holders of all of the shares of our common stock present or represented at the Annual Meeting and voting affirmatively or negatively on this proposal is needed to approve, on an advisory basis, the compensation of our named executive officers, as set forth in this proxy statement. Neither abstentions nor broker non-votes will have an effect on the outcome of this proposal because approval of this proposal is based solely on the number of votes cast affirmatively or negatively. Although the outcome of this say-on-pay vote is non-binding and advisory, the compensation committee of the board of directors will review and consider the outcome of this vote when making future compensation decisions for our named executive officers.

Ratification of the Appointment of Armanino LLP (Proposal 3): The affirmative vote of a majority of the votes cast by the holders of all of the shares of our common stock present or represented at the Annual Meeting and voting affirmatively or negatively on the proposal is needed to ratify the appointment of Armanino LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2017. Neither abstentions nor broker non-votes will have an effect on the outcome of this proposal because approval of this proposal is based solely on the number of votes cast affirmatively or negatively.

How will votes be counted?

Each share of common stock voted at the Annual Meeting will be counted as one vote. Shares will not be voted in favor of a matter, and will not be counted as voting on a particular matter, if either (1) the holder of the shares withholds authority in the proxy card to vote for a particular director nominee or nominees or abstains from voting on a particular matter, or (2) the shares constitute "broker non-votes."

Who will count the votes?

Broadridge Financial Solutions, Inc. will count, tabulate and certify the votes. A representative of Broadridge will serve as the inspector of elections at the Annual Meeting.

How does the board of directors recommend that I vote on the proposals?

Our board of directors recommends that you vote:

- FOR Proposal 1—to elect the nominees identified in this proxy statement as Class III directors;
- FOR Proposal 2—to approve, on a non-binding, advisory basis, the compensation of our named executive officers as described in this proxy statement; and
- FOR Proposal 3—to ratify the appointment of Armanino LLP as our independent registered public accounting firm for the year ending December 31, 2017.

Will any other business be conducted at the Annual Meeting or will other matters be voted on?

We are not aware of any other business to be conducted or matters to be voted on at the Annual Meeting. If any other matter properly comes before the meeting, the persons named in the proxy card that accompanies this proxy statement will exercise their judgment in deciding how to vote, or otherwise act, at the meeting with respect to that matter or proposal with respect to the shares they have authority to vote.

Where can I find the voting results?

We will report the voting results from the Annual Meeting in a Current Report on Form 8-K, which we expect to file with the Securities and Exchange Commission, or the SEC, within four business days after the Annual Meeting.

May I recommend a candidate for Intermolecular's board of directors?

Yes. Stockholders may recommend director candidates for consideration by the nominating and corporate governance committee of our board of directors by sending a written notice to our corporate secretary at the address under "How and when may I submit a stockholder proposal for the 2018 annual meeting?" below. If a stockholder would like a candidate to be considered for inclusion in the proxy statement for our 2018 annual meeting, the stockholder must follow the procedures for stockholder proposals outlined immediately below under "How and when may I submit a stockholder proposal for the 2018 annual meeting?" You can find more detailed information on our process for selecting board members and our criteria for board nominees in "BOARD OF DIRECTORS, CORPORATE GOVERNANCE AND RELATED MATTERS—Director Nomination Process" below and in the Corporate Governance Guidelines posted on the "Investors" section of our website, www.intermolecular.com.

Alternatively, our bylaws provide that stockholders may nominate director candidates for consideration at the 2018 annual meeting directly without approval of the nominating and corporate governance committee. In order to nominate candidates directly, stockholders must follow the procedures outlined in "How and when may I submit a stockholder proposal for the 2018 annual meeting?" immediately below.

How and when may I submit a stockholder proposal for the 2018 annual meeting?

If you are interested in submitting a proposal or information about a proposed director candidate for inclusion in the proxy statement for our 2018 annual meeting, you must follow the procedures outlined in Rule 14a-8 of the Securities Exchange Act of 1934, as amended, or the Exchange Act. To be eligible for inclusion in the proxy statement, we must receive your stockholder proposal or information about your proposed director candidate at the address noted below no later than December 6, 2017.

If you wish to present a proposal or a proposed director candidate at the 2018 annual meeting, but do not wish to have the proposal or director candidate considered for inclusion in the proxy statement and proxy card, you must also give written notice to our corporate secretary at the address noted below. We must receive this required notice by February 15, 2018, but no sooner than January 16, 2018. However, if the 2018 annual meeting is held before April 15, 2018 or after July 14, 2018, then we must receive the required notice of a proposal or proposed director candidate no earlier than the 120th day prior to the 2018 annual meeting and no later than the close of business on the later of (1) the 90th day prior to the 2018 annual meeting, or (2) the 10th day following the date on which notice of the date of the 2018 annual meeting was mailed or public disclosure was made, whichever occurs first.

Any proposals, notices or information about proposed director candidates should be sent to:

Intermolecular, Inc.

3011 N. First Street

San Jose, California 95134

Attention: Corporate Secretary

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Who bears the costs of soliciting these proxies?

We will bear the costs of soliciting proxies. We are soliciting proxies for the Annual Meeting by mailing this proxy statement and accompanying materials to our stockholders. We are also soliciting proxies in the following ways:

• Our directors, officers and employees may, without additional pay, solicit proxies by telephone, facsimile, email and personal interviews.

• We will request brokerage houses, custodians, nominees and fiduciaries to forward copies of the proxy materials to the persons for whom they hold shares and request instructions for voting the proxies. We will reimburse the brokerage houses and other persons for their reasonable expenses in connection with this distribution.

Who should I contact if I have any questions?

If you have any questions about the Annual Meeting or your ownership of our common stock, please contact Investor Relations at the contact information identified on page 1 of this proxy statement.

What is "householding" and how may I receive my own separate copy of the proxy statement or annual report?

The SEC has adopted rules that permit companies and intermediaries (such as banks and brokers) to satisfy the delivery requirements for proxy statements and annual reports with respect to two or more stockholders sharing the same address by delivering a single proxy statement addressed to those stockholders. This process, which is commonly referred to as "householding," potentially means extra convenience for stockholders and cost savings for companies.

At the present time, Intermolecular does not "household" for any of our stockholders of record. However, if you hold shares of common stock in street name, your bank, broker or other nominee may be householding our proxy materials this year. Once you have received notice from your bank, broker or other nominee that it will be householding communications to your address, householding will continue until you are notified otherwise or until you revoke your consent. A single proxy statement will be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. If you only received a single set of proxy materials and would like to receive a separate set of materials, direct your written request to Broadridge Financial Solutions, at Broadridge Household Department, 51 Mercedes Way, Edgewood, New York, 11717, or by telephone at 1-800-542-1061 and an additional set of materials will promptly be delivered to you. If, at any time, you no longer wish to participate in householding and would prefer to receive a separate proxy statement and annual report in the future, please notify your bank, broker or other nominee. Stockholders who currently receive multiple copies of the proxy statement at their address and would like to request householding of their communications in the future should contact their bank or broker.

BOARD OF DIRECTORS, CORPORATE GOVERNANCE AND RELATED MATTERS

Our Board of Directors

In accordance with the terms of our certificate of incorporation and bylaws, our board of directors is divided into three classes, each of which consists, as nearly as possible, of one-third of the total number of directors constituting our entire board of directors and each of whose members serve for staggered three year terms. As a result, only one class of our board of directors is elected each year. The members of the classes are divided as follows:

- the Class I directors are Marvin D. Burkett and Christian F. Kramer, and their terms expire at the conclusion of the annual meeting of stockholders to be held in 2018;
- the Class II directors are Irwin Federman and Kenneth H. Traub, and their terms expire at the conclusion of the annual meeting of stockholders to be held in 2019; and
- the Class III directors are Bruce M. McWilliams, George M. Scalise and Matthew Furnas, and their terms expire at the conclusion of this annual meeting.

Upon the expiration of the term of a class of directors, directors in that class are eligible to be elected for a new three-year term at the annual meeting of stockholders in the year in which their term expires. The board of directors has nominated Bruce M. McWilliams, George M. Scalise and Matthew Furnas to stand for election as Class III directors at this annual meeting.

Below is information about each member of our board of directors, including nominees for election as Class III directors. This information includes each director's age as of March 31, 2017 and length of service as a director of Intermolecular, his principal occupation and business experience for at least the past five years, and the names of other publicly held companies of which he has served as a director during at least the past five years.

In addition to the information presented below regarding each director's specific experience, qualifications, attributes and skills that led our board of directors to the conclusion that he should serve as a director, we also believe that each of our directors has a reputation for integrity, honesty and adherence to high ethical standards. They each have demonstrated business acumen and an ability to exercise sound judgment, as well as a commitment to service.

There are no family relationships among any of our directors, nominees for director and executive officers.

Director Nominees for Terms Expiring in 2020 (Class III Directors)

Bruce M. McWilliams, age 60, has served as our Chairman since April 2017. Dr. McWilliams served as our Executive Chairman from August 2016 to April 2017, our President and Chief Executive Officer from October 2014 to August 2016 and as a member of our board of directors since March 2005. Dr. McWilliams brings to our board of directors broad experience in the electronics manufacturing and clean technology sectors, as well as extensive management experience. Dr. McWilliams served as Chief Executive Officer of SuVolta, Inc., a developer of low-power, high-performance integrated circuit technology, from June 2009 to October 2014. Dr. McWilliams also served as a director of Tessera Technologies, Inc. from 1999 to January 2011, where he previously served as its Chief Executive Officer from June 1999 to September 2008 and Chief Strategic Officer from September 2008 to March 2009. Dr. McWilliams also founded and served as Chief Executive Officer of SVision LLC, a silicon chip-based display company, from 1996 to 1999. His management experience also includes serving as Senior Vice President at Flextronics International Ltd. (Flextronics) from 1995 to 1996, a position he assumed upon Flextronics' acquisition of nCHIP, Inc., a multi-chip module packaging company that he co-founded and led as Chief Executive Officer from 1989 to 1995. He currently serves as a member of the board of directors and audit committee for Inphi Corporation, a semiconductor packaging company, and as a member of the board of directors of NovaTorque, Inc., a magnet motor design company. Dr. McWilliams is also a trustee of Carnegie Mellon University and a member of its advisory boards for Physics and Human and Computer Interaction. He previously served on the board of directors of REEL Solar, Inc., a solar heating technology company, from 2009 through December 2011. He holds B.S., M.S. and Ph.D. degrees in

physics from Carnegie Mellon University.

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George M. Scalise, age 82, has served as a member of our board of directors since December 2004. Mr. Scalise brings to our board of directors extensive knowledge of the semiconductor industry and market analysis. Mr. Scalise served as President of the Semiconductor Industry Association, or SIA, an association of semiconductor manufacturers and suppliers, from June 1997 to December 2010. Mr. Scalise previously worked at Apple Computer, Inc., where he served as Executive Vice President and Chief Administrative Officer from March 1996 to June 1997, and has also held executive management positions at National Semiconductor Corporation, Maxtor Corporation, Advanced Micro Devices, Inc., Fairchild Semiconductor Corporation and Motorola Semiconductor. Mr. Scalise was Chairman of the Board of the Federal Reserve Bank of San Francisco from May 2003 to December 2005 and served on the Federal Reserve Bank of San Francisco board of directors from January 2000 to December 2005 and also served on President George W. Bush's Council of Advisors on Science and Technology from 2001 to 2008. He currently serves on the board of directors of Cadence Design Systems, Inc. (Cadence), and also serves as a member of the compensation committee for Cadence. From 2010 to 2014, Mr. Scalise served on the board of directors of ATMI, Inc. From 2006 to 2012, Mr. Scalise served on the board of directors of MindTree, Ltd. Mr. Scalise served on the California Council on Science and Technology and was a member of the Joint High-Level Advisory Panel of the United States-Israel Science and Technology Commission, and chaired the Secretary of Energy Advisory Board at the U.S. Department of Energy. Mr. Scalise holds a B.S. in mechanical engineering from Purdue University, and is also a graduate of the Stanford Law School's Directors' College.

Matthew Furnas, age 29, has served as a member of our board of directors since March 2017. During his career, Mr. Furnas has developed expertise in analyzing and performing due diligence on companies in a wide array of industries through public and private equity investments. We believe Mr. Furnas's qualifications to serve on our Board include his experience and expertise in accounting, financial analysis, and public company reporting. Mr. Furnas has been a Senior Analyst at Raging Capital Management, LLC ("Raging Capital"), a diversified investment firm, since 2010. He received a Bachelor of Science in Business Administration from Olin Business School at Washington University in St. Louis. Previously, on November 14, 2016, we entered into a governance agreement with Raging Capital. Under terms of the agreement, Raging Capital shall be allowed to nominate one additional director to our board for election at the 2017 Annual Meeting, subject to approval by the Nominating Committee, subject to its fiduciary duties, and be allowed to purchase no more than eight million additional shares as of the date of the agreement. Mr. Furnas was initially presented to the Nominating Committee as Raging Capital's designee pursuant to the governance agreement and is nominated for election at this Annual Meeting.

Directors Whose Terms Expire in 2018 (Class I Directors)

Marvin D. Burkett, age 74, has served as a member of our board of directors since June 2011. A 40-year veteran of the semiconductor industry, Mr. Burkett brings to our board of directors years of experience with global semiconductor and personal computing companies, as well as in-depth knowledge of public company financial and accounting principles. Mr. Burkett served as Senior Adviser to NVIDIA Corporation (NVIDIA) from February 2009 until January 2011. Previously, he began at NVIDIA in August 2002 and served as its Chief Financial Officer and Chief Accounting Officer from September 2002 to February 2009. Prior to NVIDIA, Mr. Burkett served as the Chief Financial Officer of Arcot Systems, Inc., and also as its Financial Consultant from February 2000 to September 2002. Mr. Burkett also served as an Executive Vice President and Chief Financial Officer of Packard Bell NEC, Inc. (PBNEC) from 1998 to 1999. Prior to PBNEC, he spent 26 years at Advanced Micro Devices, Inc. from 1972 to 1998, where he served in a variety of positions, including Chief Financial Officer, Senior Vice President, Chief Administrative Officer and Corporate Controller. Mr. Burkett also worked in the Semiconductor Division of Raytheon Company. Mr. Burkett previously served as a member of the board of directors of Entegris, Inc. since May 2010. He served as member of the board of directors of Audience, Inc. from 2010 to 2016. Mr. Burkett serves or served as the chairman of the audit committee and a member of the compensation committee for each company. Mr. Burkett also previously served as a member of the board of directors and chairman of the audit committee of NetLogic Microsystems, Inc. Mr. Burkett holds an MBA and a B.S. in applied mathematics and business administration from the University of Arizona.

Christian F. Kramer, age 54, has served as our president and chief executive officer since August 2016 and as a board member since December 2016. Mr. Kramer most recently served as Chief Commercial Officer and Senior Vice President and General Manager of Electronic Materials of Entegris, since its acquisition of ATMI in 2014. Mr. Kramer joined ATMI in 2010 as Senior Vice President of Materials Solutions and, in 2013, was promoted to manage ATMI's microelectronics materials business as its General Manager. Prior to joining ATMI, Mr. Kramer

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was Vice President, Global Strategic Account Management, for Tokyo Electron America. Mr. Kramer holds a B.S. in general engineering/physical science from the United States Naval Academy and served in the United States Navy as a Surface Warfare Officer for seven years after receiving his degree and commission.

Directors Whose Terms Expire in 2019 (Class II Directors)

Irwin Federman, age 81, has served as a member of our board of directors since June 2005. Mr. Federman brings to our board of directors an extensive knowledge of the semiconductor industry, as well as public company governance experience. Mr. Federman is currently a senior advisor to U.S. Venture Partners, a venture capital firm, and served as a managing member of U.S. Venture Partners from April 1990 to September 2015. Mr. Federman was President and Chief Executive Officer of Monolithic Memories, Inc., a semiconductor company, from 1979 to 1987. Mr. Federman also serves on the board of directors for each of Check Point Software Technologies Ltd., a security software company, Mellanox Technologies, Ltd., a supplier of interconnect integrated circuits and systems, ON24, Inc., a cloud-based webcasting communications platform company, Silego Technology, Inc., a fabless semiconductor company, and SupplyFrame, Inc., a provider of sales and marketing solutions for the electronics industry. Mr. Federman holds a B.S. in Economics from Brooklyn College and was awarded an Honorary Doctorate of Engineering Science from Santa Clara University.

Kenneth H. Traub, age 55, has served as a member of our board of directors since May 2016. Mr. Traub's wealth of executive management and board experience and corporate governance awareness from his experience as a senior executive of public companies and his current and past service as a director would allow him to provide valuable advice and guidance to the Board. Mr. Traub has served as a Managing Partner of Raging Capital since December 2016. From 2009 through 2016, Mr. Traub was President and Chief Executive Officer of Ethos Management LLC, and from 2013 through 2016, he served as an Affiliate Partner of Rosemark Capital, a private equity firm. From 1999 until its acquisition by JDS Uniphase Corp. (JDSU) in 2008, Mr. Traub served as President and Chief Executive Officer of American Bank Note Holographics, Inc. (ABNH), a leading global supplier of optical security devices for the protection of documents and products against counterfeiting. Following the sale of ABNH, he served as Vice President of JDSU, a global leader in optical technologies and telecommunications. In 1994, Mr. Traub co-founded Voxware, Inc., a pioneer in voice over Internet protocol communication technologies, and served as its Executive Vice President and Chief Financial Officer through 1998. From 1988 to 1994, he served as Vice President of Trans-Resources, Inc., a multi-national holding company and investment manager. Mr. Traub currently serves on the boards of directors of the following public companies: (i) As Chairman of the board of MRV Communications, Inc., a leading provider of packet and optical communications network equipment, (ii) DSP Group, Inc., a leading global provider of wireless chipset solutions for converged communications, (iii) Athersys, Inc., a biotechnology company engaged in the discovery and development of therapeutic product candidates, and (iv) A. M. Castle & Co., a specialty metals and plastics distribution company. He previously served on the boards of directors of (i) Phoenix Technologies, Inc., a supplier of the basic input output system for the personal computer industry, from 2009 until the company was sold in 2010, (ii) iPass, Inc., a leading global provider of mobility services for Enterprises and Carriers, from 2009 to 2013, (iii) MIPS Technologies, Inc., a leading provider of industry standard processor architectures and cores, from 2011 until the company was sold in 2013, (iv) Xyratex Limited, a leading supplier of data storage technologies, from 2013 until the company was sold in 2014, and (v) Vitesse Semiconductor Corporation, a leading supplier of integrated circuit solutions for next-generation carrier and enterprise networks, from 2013 until the company was sold in 2016. He also served as the Chairman of the Board of the New Jersey chapter of the Young Presidents Organization in 2010 and 2011 and on the board of the New Jersey chapter of the World Presidents Organization since 2012. Mr. Traub holds a BA from Emory College and an MBA from Harvard Business School. Previously, on November 14, 2016, we entered into a governance agreement with Raging Capital. Under terms of the agreement, Raging Capital shall be allowed to nominate one additional director to our board for election at the 2017 Annual Meeting, subject to approval by the Nominating Committee, subject to its fiduciary duties, and be allowed to purchase no more than eight million additional shares as of the date of the agreement.

Director Independence

As required under the Nasdaq Marketplace Rules, independent directors must comprise a majority of a listed company's board of directors, as affirmatively determined by the board of directors. In addition, Nasdaq Marketplace Rules require that, subject to specified exceptions, each member of a listed company's audit,

compensation and nominating and governance committees be independent. Our board of directors consults with our counsel to ensure that the board of directors' determinations are consistent with all relevant securities and other laws and regulations regarding the definition of "independent" in each circumstance, including those set forth in pertinent listing standards of the Nasdaq Marketplace Rules, as in effect from time to time.

Consistent with these considerations, in April of 2017, our board of directors undertook a review of its composition, the composition of its committees and the independence of each director. Based upon information requested from and provided by each director concerning his background, employment and affiliations, including family relationships, our board of directors has determined that none of Messrs. Burkett, Federman, Furnas, Scalise, or Traub, representing five of our seven directors and director nominees, has a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director, and that each of these persons is "independent" as that term is defined under the Nasdaq Marketplace Rules. Our board of directors also determined that Messrs. Burkett, Scalise and Traub, who comprise our audit committee, Messrs. Federman and Traub, who comprise our compensation committee, and Messrs. Burkett and Scalise, who comprise our nominating and corporate governance committee, satisfy the independence standards for those committees established by applicable SEC rules and the Nasdaq Marketplace Rules. In making this determination, our board of directors considered the relationships that each non-employee director has with our company and all other facts and circumstances our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director and any relationships summarized below under the heading "Transactions with Related Persons" that may pertain to each such director. Dr. McWilliams is not considered independent because he has been an employee of the Company within the previous three years. Mr. Kramer is not considered independent because he is an employee of the Company.

As required under the Nasdaq Marketplace Rules, our independent directors meet in executive sessions at which only independent directors are present.

Board Leadership Structure and Risk Oversight

Dr. McWilliams currently serves as Chairman of the board of directors. In addition, Mr. Scalise was appointed Lead Independent Director in May of 2016. Christian "Chris" F. Kramer joined the company in August of 2016 as President and Chief Executive Officer and joined the board of directors in December 2016. At present, we have determined that the leadership structure of having the separate positions of chairman, lead independent director and chief executive officer is appropriate and provides an efficient distribution of responsibilities given our current business climate.

Our Board acknowledges that no single leadership model is right for all companies at all times. As such, our Board periodically reviews its leadership structure and may, depending on the circumstances, including our size, resources and operations, choose a different leadership structure in the future.

While our board is ultimately responsible for risk oversight, our board committees assist the board in fulfilling its oversight responsibilities in certain areas of risk. In particular, our audit committee focuses on financial risk, including internal controls. Our nominating and corporate governance committee focuses on the management of risks associated with independence of the board, potential conflicts of interest and corporate governance. Finally, our compensation committee assists the board in fulfilling its oversight responsibilities with respect to the management of risks arising from our compensation policies and programs.

Committees of our Board of Directors

Our board of directors has an audit committee, a compensation committee, a nominating and corporate governance committee, a strategy committee and a strategic alternatives committee. Each of these committees operates under a charter that has been approved by our board of directors. Current copies of each committee's charter, other than the

strategy committee and the strategic alternatives committee, are posted on the "Investors" section of our website, www.intermolecular.com. The composition and functioning of all of our committees comply with all applicable requirements of the Sarbanes-Oxley Act of 2002, the Nasdaq Marketplace Rules, and SEC rules and regulations. The composition and responsibilities of each committee are described below. Members serve on these committees until their resignation or until otherwise determined by our board of directors.

Audit Committee

Our audit committee oversees our corporate accounting and financial reporting process. Among other matters, the audit committee: appoints the independent registered public accounting firm; evaluates the independent registered public accounting firm's qualifications, independence and performance; determines the engagement of the independent registered public accounting firm; reviews and approves the scope of the annual audit and the audit fee; discusses with management and the independent registered public accounting firm the results of the annual audit and the review of our quarterly consolidated financial statements; approves the retention of the independent registered public accounting firm to perform any proposed permissible non-audit services; monitors the rotation of partners of the independent registered public accounting firm on our engagement team as required by law; reviews our consolidated financial statements and our management's discussion and analysis of financial condition and results of operations to be included in our annual and quarterly reports to be filed with the SEC; reviews our critical accounting policies and estimates; and annually reviews the audit committee charter and the committee's performance, which is included below under "AUDIT-RELATED MATTERS-Audit Committee Report."

The members of our audit committee in 2016 were Messrs. Burkett, Scalise and Traub. In March 2017, the Board changed the composition of the audit committee such that the current members are Messrs. Burkett, Scalise and Furnas. Mr. Federman served on the audit committee until May 2016. Mr. Burkett serves as the chairman of the committee. All members of our audit committee meet the requirements for financial literacy under the applicable rules and regulations of the SEC and The Nasdaq Stock Market. Our board of directors has determined that Mr. Burkett is an audit committee financial expert as defined under the applicable rules of the SEC and has the requisite financial sophistication as defined under the applicable rules and regulations of The Nasdaq Stock Market. Each of the members of our audit committee qualifies as an independent director under the applicable rules and regulations of the SEC and The Nasdaq Stock Market relating to audit committee independence. The audit committee operates under a written charter that satisfies the applicable standards of the SEC and The Nasdaq Stock Market.

Our audit committee met 11 times during 2016.

All audit and non-audit services, other than de minimis non-audit services, to be provided to us by our independent registered public accounting firm must be approved in advance by our audit committee. For more information regarding our audit committee, see "AUDIT-RELATED MATTERS" below.

Compensation Committee

Our compensation committee reviews and recommends policies relating to the compensation and benefits of our officers and employees. The compensation committee reviews and approves corporate goals and objectives relevant to the compensation of our chief executive officer and other executive officers, evaluates the performance of these officers in light of those goals and objectives, and sets the compensation of these officers based on such evaluations. The compensation committee also approves grants of stock options and other equity awards under our equity compensation plans. The compensation committee reviews and evaluates, at least annually, the performance of the compensation committee and its members, including compliance of the compensation committee with its charter, which is included below under "EXECUTIVE COMPENSATION-Compensation Committee Report."

The members of our compensation committee in 2016 were Messrs. Federman and Traub. In March 2017, the Board changed the composition of the compensation committee such that the current members are Messrs. Federman, Traub and Burkett. Mr. Federman serves as the chairman of the committee. Each of the members of our compensation committee is a non-employee, independent and outside director under the applicable rules and regulations of the SEC, The Nasdaq Stock Market and the Internal Revenue Code of 1986, as amended, respectively, relating to compensation committee independence. The compensation committee operates under a written charter.

Our compensation committee met five times during 2016.

Nominating and Corporate Governance Committee

The nominating and corporate governance committee is responsible for making recommendations to our board of directors regarding candidates for directorships, and the size and composition of our board of directors and standing committees. In addition, the nominating and corporate governance committee is responsible for overseeing our corporate governance policies and reporting and making recommendations to our board of directors concerning governance matters.

The members of our nominating and corporate governance committee in 2016 were Messrs. Burkett and Scalise. In March 2017, the Board changed the composition of the nominating and corporate governance committee such that the current members are Messrs. Scalise, Federman and Traub. Mr. Scalise serves as the chairman of the committee. Each of the members of our nominating and corporate governance committee is an independent director under the applicable rules and regulations of the SEC and The Nasdaq Stock Market relating to nominating and corporate governance committee independence.

Our nominating and corporate governance committee met two times during 2016.

The processes and procedures followed by our nominating and corporate governance committee in identifying and evaluating director candidates are described below under the heading "Director Nomination Process."

Strategy Committee

The strategy committee is responsible for reviewing and providing strategic advice and counsel to the Company regarding business operations and presenting to the board an independent assessment of the Company's business operations as it relates to strategic initiatives.

The current members of the strategy committee are Dr. McWilliams and Messrs. Burkett and Scalise.

The strategy committee met two times during 2016.

Strategic Alternatives Committee

The strategic alternatives committee is responsible for assessing strategic alternatives and opportunities for the Company. The current members of the strategic alternatives committee are Messrs. Burkett, Federman, Scalise and Traub. Mr. Traub serves as the chairman of the committee.

The strategic alternatives committee was formed in July of 2016 and met three times during 2016.

Board Meetings and Attendance

Our board met nine times during 2016. During 2016, each incumbent director attended at least 75% of the aggregate of the number of board meetings and the number of meetings held by all committees on which he then served.

Director Attendance at Annual Meeting

Members of our board, and nominees for director, are encouraged to attend our annual meetings of stockholders. All of the members of the board attended our 2016 annual meeting of stockholders.

Director Compensation

We maintain a non-employee director compensation program that is intended to fairly compensate our non-employee directors for the time and effort necessary to serve on our board of directors. In structuring compensation arrangements for non-employee directors, the compensation committee took into account our need to attract and retain high-quality directors by offering compensation packages competitive with those of companies of similar size, in similar industries or markets and at the same stage of maturity as our company.

In accordance with this program, our non-employee directors are entitled to receive annual cash retainers of \$35,000. In addition, (i) non-employee directors who serve as chairs of the audit, compensation and nominating and corporate governance committees receive additional annual cash retainers of \$20,000, \$10,000 and \$7,500, respectively, (ii) non-employee directors who serve as non-chair members of the audit, compensation and nominating and corporate governance committees receive additional annual cash retainers of \$7,500, \$5,000 and \$2,500, respectively, (iii) members of the strategy committee receive \$1,000 per meeting, and (iv) the lead independent director receives an additional annual cash retainer of \$20,000. All cash retainers and meeting fees are paid quarterly in arrears.

In 2016, in accordance with this program, Mr. Traub received an initial option to purchase 75,000 shares of our common stock when he joined our board of directors. Each other non-employee director was granted an option to purchase 25,000 shares of our common stock on the date of our annual meeting of our stockholders (provided that the non-employee director has served on our board of directors for at least six months prior to the date of the annual meeting). Mr. Traub's stock option grant vests as to 25% of the underlying shares on each of the first four anniversaries of the grant date, subject to his continued service through the applicable vesting date. Each annual stock option grant vested in full on the earlier to occur of the first anniversary of the applicable grant date or the date of the annual meeting of our stockholders immediately following the applicable grant date, in each case, subject to the non-employee director's continued service with the company through the applicable vesting date. Each initial stock option grant and annual stock option grant automatically vest in full and become exercisable immediately prior to a "change in control" of the company (as defined in our 2011 Incentive Award Plan).

In 2016, we also reimbursed each of our non-employee directors for reasonable travel expenses incurred in connection with attendance at board of directors and committee meetings.

Effective as of April 2017, Dr. McWilliams resigned as Executive Chairman of the company and will transition to become the non-executive chairman of the board. Dr. McWilliams will also provide certain consulting services to the company pursuant to a consulting agreement, the terms of which are to be negotiated. For so long as Dr. McWilliams is a consultant, he will not receive any additional compensation as a non-employee director.

The following table sets forth information regarding compensation earned by our non-employee directors during the year ended December 31, 2016. Dr. McWilliams and Mr. Kramer's compensation is reported in the Summary Compensation Table, below. Dr. McWilliams and Mr. Kramer did not receive any separate compensation for their service as a director.

Name	Fees		Total
	Paid or	Option	
	Earned	Awards	
	in Cash		
	(\$)	(\$)(1)	(\$)
Thomas R. Baruch(2)	51,583	46,250	97,833
Marvin D. Burkett	59,500	46,250	105,750
Irwin Federman	44,125	46,250	90,375
George M. Scalise	58,208	46,250	104,458
Wilbert Van den Hoek(3)	47,375	46,250	93,625
Kenneth H. Traub(4)	25,792	138,750	164,542

(1) Amounts reported reflect the grant date fair value of stock options granted in 2016, computed in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718, or ASC Topic 718, rather

than the amounts paid to or realized by the non-employee director. The assumptions used to calculate the value of all stock options granted to non-employee directors are set forth in Note 7 to our consolidated financial statements included in our 2016 Annual Report on Form 10-K filed with the SEC on March 3, 2017. As of December 31, 2016, Messrs. Baruch, Burkett, Federman, Scalise, van den Hoek and Traub held options to purchase 55,000, 92,500, 80,000, 80,000, 100,000 and 75,000 shares, respectively, of our common stock.

(2) Mr. Baruch resigned from the board on December 17, 2016.

(3) Mr. van den Hoek resigned from the board on February 23, 2017.

(4) Mr. Traub's tenure as a director began on May 25, 2016. At Mr. Traub's request, his annual cash retainers are paid directly to Raging Capital Management, LLC.

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Director Nomination Process

Our nominating and corporate governance committee is responsible for reviewing with the board of directors, on at least an annual basis, the appropriate characteristics, skills and experience required for the board of directors as a whole and its individual members. In evaluating the suitability of individual candidates (both new candidates and current members), the nominating and corporate governance committee, in recommending candidates for election, and the board of directors, in approving (and, in the case of vacancies, appointing) such candidates, takes into account many factors, including: personal and professional integrity, ethics and values; experience in corporate management, such as serving as an officer or former officer of a publicly held company, and a general understanding of marketing, finance and other elements relevant to the success of a publicly-traded company in today's business environment; experience relevant to our industry and with relevant social policy concerns; experience as a board member or executive officer of another publicly held company; relevant academic expertise or other proficiency in an area of our operations; practical and mature business judgment, including ability to make independent analytical inquiries; diversity of personal background, perspective and experience; promotion of a diversity of business or career experience relevant to the success of the company; and any other relevant qualifications, attributes or skills. The board evaluates each individual in the context of the board as a whole, with the objective of assembling a group that can best perpetuate the success of the business and represent stockholder interests through the exercise of sound judgment using its diversity of experience in these various areas. In determining whether to recommend a director for re-election, the nominating and corporate governance committee may consider the director's past attendance at meetings and participation in and contributions to the activities of the board. The nominating and corporate governance committee may decide to retain an executive search firm to identify director candidates, and if so, will identify the search firm and approve the search firm's fees and other retention terms and will specify for the search firm the criteria to use in identifying potential candidates, consistent with the director qualification criteria described above.

The nominating and corporate governance committee will also consider director candidates recommended by stockholders. When recommending nominees for election as directors, our nominating and corporate governance committee shall consider candidates proposed by stockholders and shall apply the same criteria, and shall follow substantially the same process in considering them, as it does in considering other candidates. Stockholders nominating director candidates must follow the procedures set forth under "INFORMATION ABOUT THE ANNUAL MEETING AND VOTING—May I recommend a candidate for Intermolecular's board of directors?" and "—How and when may I submit a stockholder proposal for the 2017 annual meeting?"

You can find more detailed information on our process for selecting board members and our criteria for board nominees in the corporate governance guidelines posted on the "Investors" section of our website, www.intermolecular.com.

Communicating with our Board of Directors

Interested persons, including stockholders, may communicate with our board by sending a letter to: Board of Directors, c/o Corporate Secretary, Intermolecular, Inc., 3011 N. First Street, San Jose, California 95134. Our corporate secretary will submit all correspondence to the chairman of the board directors and to any specific director to whom the correspondence is directed.

Other Corporate Governance Matters

We believe in sound corporate governance practices and have adopted formal corporate governance guidelines to enhance our effectiveness. Our board adopted these corporate governance guidelines in order to ensure that it has the necessary practices in place to review and evaluate our business operations as needed and to make decisions that are independent of our management. The corporate governance guidelines are also intended to align the interests of directors and management with those of our stockholders. The corporate governance guidelines set forth the practices

our board follows with respect to board and committee composition and selection, board meetings, chief executive officer performance evaluation and management development and succession planning for senior management, including the chief executive officer position. A copy of our corporate governance guidelines is available on our website at ir.intermolecular.com.

We have also adopted a Code of Business Conduct and Ethics, which is applicable to all of our employees, officers and directors, including those officers responsible for financial reporting as required by applicable Nasdaq listing standards, which is a "code of ethics" as defined by applicable SEC rules. The Code of Business Conduct and Ethics is publicly available on our website at ir.intermolecular.com. The Code of Business Conduct and Ethics includes an enforcement mechanism, and if we make any amendments to the Code of Business Conduct and Ethics other than technical, administrative, or other non-substantive amendments, or grant any waivers, including implicit waivers, from a provision of this Code of Business Conduct and Ethics for our directors, executive officers or other principal financial officers, we will disclose the nature of the amendment or waiver, its effective date, and to whom it applies, on our website at ir.intermolecular.com or in a current report on Form 8-K filed with the SEC. There were no waivers of the Code of Business Conduct and Ethics during 2016.

Complete copies of our corporate governance guidelines, Code of Business Conduct and Ethics and the charters for our audit, compensation and nominating and corporate governance committees are available on the "Investors" section of our website, www.intermolecular.com. Alternatively, you may request a copy of any of these documents free of charge by writing to:

Intermolecular, Inc.

3011 N. First Street

San Jose, California 95134

Attention: Investor Relations

Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee has at any time during the prior three years been an officer or employee of ours. None of our executive officers currently serves or in the prior three years has served as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our board of directors or compensation committee.

Compensation Risk Assessment

The compensation committee has assessed our compensation policies and practices and concluded that they do not create risks that are reasonably likely to have a material adverse effect on the company. In reaching this conclusion, the compensation committee considered various characteristics of our compensation plans and related policies, including but not limited to the following:

- The mix of fixed (base salary) and variable (annual cash incentive and equity) compensation, including short-term (annual cash incentive) and long-term (equity) incentives, which reduces the significance of any one particular compensation component.

- The mix of various stock options and restricted stock unit awards that vest over time (generally four years from grant), which discourages unnecessary short-term risk-taking while encouraging retention and focusing employees' attention on longer-term performance.

- Sales commission programs that are generally subject to annual caps (with the excess rolled forward), which decrease the incentive for an employee to take unnecessary risks to achieve an individual goal.

Executive Compensation Process

The processes and procedures followed by our compensation committee in considering and determining executive compensation are described under "EXECUTIVE COMPENSATION—Compensation Discussion and Analysis" below.

The compensation committee has the authority to retain compensation consultants and other outside advisors to assist in the evaluation and determination of executive officer compensation. For further information, see "EXECUTIVE COMPENSATION—Compensation Discussion and Analysis" below. Additionally, the compensation committee may delegate its authority to one or more subcommittees as it deems appropriate.

Transactions with Related Persons

We describe below transactions, since January 1, 2016, to which we were a party or will be a party, in which:

• The amounts involved exceeded or will exceed \$120,000; and

• A director, executive officer, holder of more than 5% of our common stock or any member of their immediate family had or will have a direct or indirect material interest.

We believe that all of these transactions were on terms as favorable as could have been obtained from unrelated third parties.

Agreements with Our Stockholders

We have entered into an amended and restated investor rights agreement with certain holders of warrants and common stock, including entities that hold 5% or more of our common stock and/or with which certain of our directors are affiliated. This agreement provides (i) that certain such holders have the right to demand that we file a registration statement, subject to certain limitations, and (ii) that all such holders have the right to request that their shares be covered by a registration statement that we are otherwise filing.

At the annual stockholders meeting in May 2016, Mr. Kenneth Traub was elected to the board of directors. Mr. Traub is a managing partner of an investment firm, Raging Capital Management, LLC (“Raging Capital”) which holds a significant ownership position of the company. The Company paid Raging Capital the cash director fees earned by Mr. Traub.

On November 14, 2016, we entered into a governance agreement with Raging Capital. Under terms of the agreement, Raging Capital shall be allowed to nominate one additional director to our board for election at the 2017 Annual Meeting, subject to approval by the Nominating Committee, subject to its fiduciary duties, and be allowed to purchase no more than eight million additional shares as of the date of the agreement. Mr. Furnas was initially presented to the Nominating Committee as Raging Capital’s designee pursuant to the governance agreement and is nominated for election at this Annual Meeting.

Indemnification Agreements

Please see below under "EXECUTIVE COMPENSATION-Limitation of Liability and Indemnification" for information on our indemnification arrangements with our directors and executive officers.

Related Person Transaction Policy

Our board of directors has adopted a written related party transaction policy. This policy covers, with certain exceptions set forth in Item 404 of Regulation S-K under the Exchange Act, any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships in which we were or are to be a participant, the amount involved exceeds \$120,000, and a related party had or will have a direct or indirect material interest. Under the policy, the audit committee is required to review the relevant facts and circumstances of any such transaction, arrangement or relationship, including whether the transaction is on comparable terms to arm's length dealings with third parties, the extent of the related party's interest in the transaction, and the conflicts of interest and corporate opportunity provisions of our Code of Business Conduct and Ethics. Such transactions, arrangements or relationships may only be consummated or continue if the audit committee approves or ratifies such transaction, arrangement or relationship. If advance approval by the audit committee is not feasible, then management may preliminarily enter into the transaction, arrangement or relationship upon prior approval by the chairman of the audit committee, subject to ratification of the transaction, arrangement or relationship at the audit committee's next regularly scheduled meeting. No director may participate in approval of a related party transaction for which he or she is a related party.

AUDIT-RELATED MATTERS

Audit Committee Report

The material in this report is not "soliciting material," is not deemed "filed" with the SEC, and is not to be incorporated by reference into any filing of Intermolecular under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended.

The following is the report of the audit committee with respect to Intermolecular's audited consolidated balance sheets for the fiscal years ending December 31, 2016 and 2015, and the related consolidated statements of operations, comprehensive loss, and of stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2016 and the related notes thereto (together, the "financial statements").

Responsibilities. The audit committee operates under a written charter adopted by the board of directors. The role of the audit committee is to oversee our financial reporting process on behalf of the board of directors. Our management has the primary responsibility for our financial statements as well as our financial reporting process and principles, internal controls and disclosure controls. The independent auditors, Armanino LLP (Armanino), are responsible for performing an audit of our financial statements and expressing an opinion as to the conformity of such financial statements with U.S. generally accepted accounting principles. Armanino is also responsible for expressing an opinion on the effectiveness of our internal controls over financial reporting.

Review with Management. The audit committee has reviewed and discussed our audited financial statements (including the quality of our accounting principles) with management. Our management is responsible for the preparation, presentation and integrity of our financial statements. Management is also responsible for establishing and maintaining internal controls over financial reporting (as defined in Exchange Act Rule 13a-15(f)) and for evaluating the effectiveness of those internal controls and for evaluating any changes in those controls that will, or is reasonably likely to, affect internal controls over financial reporting. Management is also responsible for establishing and maintaining disclosure controls (as defined in Exchange Act Rule 13a-15(e)) and for evaluating the effectiveness of disclosure controls and procedures.

Review and Discussions with Independent Accountants. The audit committee has reviewed and discussed our audited financial statements (including the quality of our accounting principles) with Armanino. The audit committee has discussed with Armanino the matters required to be discussed by the Public Company Accounting and Oversight Board (PCAOB) Auditing Standard No. 1301, "Communications with Audit Committees; Related Amendments to PCAOB Standards; and Transitional Amendments to PCAOB AU Section 380," which includes, among other items, matters related to the conduct of the audit of our financial statements, and the matters required to be discussed by PCAOB Auditing Standard No. 2, An Audit of Internal Control Over Financial Reporting Performed in Conjunction with an Audit of Financial Statements. Further, the audit committee reviewed Armanino's Report of Independent Registered Public Accounting Firm included in our Annual Report on Form 10-K related to its audit of the consolidated financial statements.

The audit committee has also received and reviewed the written disclosures and the letter from Armanino required by the applicable requirements of the PCAOB regarding Armanino's communications with the audit committee concerning independence, and has discussed with Armanino its independence from us.

Conclusion. Based on the review and discussions referred to above, the audit committee recommended to the board of directors that our audited financial statements be included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016.

Submitted by the Audit Committee of the Board of Directors:

Marvin D. Burkett (Chair)

Kenneth H. Traub (Member until March 2017)

George M. Scalise

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Auditor Fees and Services

The following table presents the aggregate fees billed (or expected to be billed) by Armanino LLP, our independent registered public accounting firm, for the year ended December 31, 2016 and by KPMG, our former independent registered public accounting firm, for the year ended December 31, 2015.

Type	2016	2015
Audit Fees (1):	\$592,250	\$1,127,003
Audit Related Fees (2):	—	—
Tax Fees (3):	—	—
All Other Fees (4):	—	—
Total Fees:	\$592,250	\$1,127,003

- (1) Audit Fees—This category includes the aggregate fees and expenses billed or accrued for each of the last two fiscal years for professional services rendered by the independent auditors for the audit of our annual financial statements and review of financial statements included in our Annual Reports and Quarterly Reports filed with the SEC or services that are normally provided by the accountant in connection with other statutory and regulatory filings or engagements for those fiscal years.
- (2) Audit Related Fees—This category includes the aggregate fees billed in each of the last two fiscal years for services by the independent auditors that are reasonably related to the performance of the audits of the financial statements and are not reported above under 'Audit Fees.'
- (3) Tax Fees—This category includes the aggregate fees billed in each of the last two years for professional services rendered by the independent auditors for tax compliance, tax planning and tax advice.
- (4) All Other Fees—This category includes the aggregate fees billed in each of the last two fiscal years for products and services by the independent auditors that are not reported under 'Audit Fees,' 'Audit Related Fees,' or 'Tax Fees.'
- Pre-approval Policies and Procedures

Before an independent registered public accounting firm is engaged by the company or its subsidiaries to render audit or non-audit services, our audit committee must review the terms of the proposed engagement and pre-approve the engagement. Our audit committee may establish policies that allow the audit committee to delegate authority to a member of the audit committee to provide such pre-approvals for audit or non-audit services, provided that such person will be required to report all such pre-approvals to the full audit committee at its next scheduled meeting. In addition, if such policies are established for non-audit services, the audit committee must be informed of each non-audit service provided by the independent registered public accounting firm. Audit committee pre-approval of non-audit services (other than review and attest services) are not required if such services fall within available exceptions established by the SEC. All fees paid to Armanino and KPMG for audit and non-audit services provided during fiscal years 2016 and 2015 were pre-approved by the audit committee in accordance with the policy described above.

The audit committee of our board of directors appoints the independent registered public accounting firm annually. In February and March of 2016, the audit committee conducted a competitive process to select an accounting firm. The audit committee selected Armanino as our independent registered public accounting firm for the year ending December 31, 2016 and dismissed KPMG from that role. Please see the discussion included with “PROPOSAL 3—RATIFICATION OF THE APPOINTMENT OF ARMANINO LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE YEAR ENDING DECEMBER 31, 2017” for more information.

MATTERS TO BE VOTED ON AT THE ANNUAL MEETING

PROPOSAL 1—ELECTION OF DIRECTORS

Our board of directors is divided into three classes, with one class being elected each year and members of each class holding office for a three-year term. We have two Class I directors, whose terms expire at the conclusion of the 2018 annual meeting of stockholders; two Class II director, whose terms expire at the conclusion of the 2019 annual meeting of stockholders; and three Class III directors, whose terms expire at the conclusion of this annual meeting of stockholders. Our board of directors currently consists of six members, but will include seven members following this Annual Meeting.

At this Annual Meeting, our stockholders will have an opportunity to vote for three nominees for a Class III director: Bruce M. McWilliams, George M. Scalise and Matthew Furnas. All three are currently directors of Intermolecular and you can find more information about the nominees in "BOARD OF DIRECTORS, CORPORATE GOVERNANCE AND RELATED MATTERS—Our Board of Directors" above.

The persons named in the enclosed proxy card will vote to elect these three nominees as Class III directors, unless you withhold authority to vote for the election of the nominees by marking the proxy card to that effect. If elected, each of the nominees for a Class III director will hold office until the 2020 annual meeting of stockholders and until his successor is elected and qualified. Each of the nominees has indicated his willingness to serve if elected. However, if any nominee should be unable to serve, the persons named in the proxy card may vote the proxy for a substitute nominee nominated by our board of directors, or our board of directors may reduce the number of directors.

Our board of directors unanimously recommends a vote FOR each of the nominees.

PROPOSAL 2—NON-BINDING, ADVISORY VOTE ON THE COMPENSATION OF NAMED EXECUTIVE OFFICERS ("SAY-ON-PAY" VOTE)

In accordance with the Dodd-Frank Wall Street Reform and Consumer Protection Act, or the Dodd-Frank Act, we are asking our stockholders to approve, on a non-binding advisory basis, the compensation paid to our named executive officers as disclosed in "Compensation Discussion and Analysis," the Summary Compensation table and related compensation tables, notes and narrative in this proxy statement for our 2017 Annual Meeting. Our next advisory say-on-pay vote (following the non-binding advisory vote at this 2017 Annual Meeting) will occur at our 2018 annual meeting of stockholders.

Summary

The compensation committee of our board of directors maintains an executive compensation program that aligns executive pay with the performance of the company and the individual executives on both short-term and long-term bases, links executive pay with business strategies focused on long-term growth and creating value for our stockholders and uses compensation as a tool to assist the company in attracting and retaining the high-caliber executives that we believe are critical to our success.

We encourage stockholders to review the "Compensation Discussion and Analysis" section of this proxy statement, which describes the material aspects of our executive compensation philosophy and the design of our executive compensation program.

At the Annual Meeting the stockholders will be asked to approve the following resolution:

"RESOLVED, that the compensation paid to the Company's named executive officers, as disclosed pursuant to Item 402 of Regulation S-K, including in the Compensation Discussion and Analysis, the compensation tables and the

narrative disclosure set forth in the Company's proxy statement, is hereby APPROVED.”

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The vote sought by this proposal is advisory and not binding on the company, our board of directors or the compensation committee. Although the vote is non-binding, the company, our board of directors and the compensation committee value the input of our stockholders, and the compensation committee will consider the outcome of the vote when making future compensation determinations for our named executive officers.

Our board of directors unanimously recommends a vote FOR this proposal.

PROPOSAL 3—RATIFICATION OF THE APPOINTMENT OF ARMANINO LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE YEAR ENDING DECEMBER 31, 2017

We are asking stockholders to ratify the appointment of Armanino LLP (“Armanino”) as our independent registered public accounting firm for our current fiscal year. Unless you indicate otherwise, your proxy will vote FOR the ratification of the appointment of Armanino as our independent registered public accounting firm for the current fiscal year.

The audit committee of our board of directors appoints the independent registered public accounting firm annually. In February and March of 2016, the audit committee conducted a competitive process to select an accounting firm. On March 29, 2016, the audit committee selected Armanino as our independent registered public accounting firm for the year ending December 31, 2016 and approved the decision to dismiss KPMG LLP (“KPMG”) from that role.

KPMG’s audit report on the financial statements of the Company for the fiscal years ended December 31, 2015 contained no adverse opinion or disclaimer of opinion and was not qualified or modified as to uncertainty, audit scope or accounting principles.

During the company’s two most recent fiscal years and any subsequent interim period preceding the dismissal of KPMG, there were no disagreements with KPMG on any matter of accounting principles or practices, financial statement disclosure or auditing scope or procedure, which disagreements, if not resolved to the satisfaction of KPMG, would have caused it to make reference to the subject matter of the disagreements in connection with its report.

During the company’s two most recent fiscal years and any subsequent interim period preceding the dismissal of KPMG, there have been no reportable events of the type required to be disclosed by Item 304(a)(1)(v) of Regulation S-K, except that KPMG’s report indicates that the company did not maintain effective internal control over financial reporting as of December 31, 2015 because of the effect of material weaknesses on the achievement of the objectives of the control criteria and contains an explanatory paragraph that states that material weaknesses related to the company’s control environment and to the company’s accounting for multiple-element and nonstandard revenue arrangements have been identified and included in management’s assessment.

During the two most recent fiscal years ended December 31, 2016 and December 31, 2015 and any subsequent interim periods through the date hereof prior to the engagement of Armanino, the company has not consulted with Armanino on any of the matters or events set forth in Item 304(a)(2) of Regulation S-K.

In accordance with Item 304(a)(3) of Regulation S-K, the company provided KPMG with a copy of the disclosures made in our Current Report on Form 8-K (“Form 8-K”), which was filed on April 1, 2016, and requested that KPMG furnish to the company a letter addressed to the SEC stating whether it agreed with the statements made by the company and, if not, stating the respects in which it did not agree. A copy of the letter from KPMG was attached as Exhibit 16.1 to the Form 8-K.

Although stockholder approval of our audit committee's selection of Armanino is not required by law, we believe that it is advisable to give stockholders an opportunity to ratify this selection. If our stockholders do not ratify this selection, our audit committee will reconsider the selection. Further, even if the selection is ratified, the audit committee in its discretion may direct the appointment of a different independent registered public accounting firm at any time during the year if they determine that such a change would be in the best interests of the Company and our stockholders.

We expect that representatives of Armanino will be present at the Annual Meeting to respond to appropriate questions and to make a statement if they wish. We do not expect KPMG to be present at the Annual Meeting.

Our board of directors unanimously recommends a vote FOR this proposal.

EXECUTIVE OFFICERS

Below is information about each of our current executive officers. This information includes each officer's age as of March 31, 2017, his position with Intermolecular, the length of time he has held each position and his business experience for at least the past five years. Our board of directors elects our officers annually, and officers serve until they resign or the board of directors terminates their officer appointment. There are no family relationships among any of our executive officers, directors and nominees for director.

Christian F. Kramer, see "Directors Whose Terms Expire in 2018 (Class I Directors)" above

Bill Roeschlein, age 47, has served as our Chief Financial Officer and Principal Financial and Accounting Officer since April 2017. From August 2015 to April 2017, Mr. Roeschlein served as our Vice President of Finance where he was responsible for corporate accounting and financial planning. Prior to joining the Company, and from January 2015 to July 2015 and from May 2010 to December 2012, Mr. Roeschlein was an advisor for high technology companies, including Trident Microsystems, Inc. From January 2013 to December 2014, Mr. Roeschlein served as Chief Financial Officer of Aurora Algae, Inc., a producer of algae-derived products for the nutrition and biofuel markets. From 2008 to 2010, Mr. Roeschlein served as Chief Financial Officer for Power Integrations, Inc., a supplier of high-voltage analog semiconductors for power conversion. From 2006 to 2008, Mr. Roeschlein served as Chief Financial Officer for Selectica, Inc., a provider of cloud-based software solutions. Prior to 2008, Mr. Roeschlein served in various corporate controller and financial management roles at Ultra Clean Technology, Asyst Technologies, Hewlett-Packard and Coopers & Lybrand. Mr. Roeschlein is a Certified Public Accountant (inactive) and has an M.B.A. from Cornell University and a B.A. from the University of California, Los Angeles.

EXECUTIVE COMPENSATION

Compensation Committee Report

The compensation committee has reviewed and discussed with management the "Compensation Discussion and Analysis" contained in this proxy statement. Based on this review and discussion, the compensation committee recommended to our board of directors that the Compensation Discussion and Analysis be included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, and in this proxy statement.

Submitted by the Compensation Committee of the Board of Directors:

Irwin Federman (Chair)

Kenneth H. Traub

Marvin D. Burkett

Compensation Discussion and Analysis

Introduction

This section discusses the company's policies and decisions with respect to the compensation of the individuals who were our named executive officers, or "NEOs," during 2016 and what we consider to be the most important factors relevant to an analysis of these policies and decisions.

Our NEOs for 2016 were determined in accordance with SEC rules and include our executive chairman, our chief executive officer, our principal financial officer and our only other executive officer serving in 2016, as follows:

• Christian F. Kramer, President and Chief Executive Officer

• Bruce M. McWilliams, Chairman of the Board of Directors and Former Executive Chairman

- C. Richard Neely, Jr., Former Senior Vice President and Chief Financial Officer

• Scot A. Griffin, Former Executive Vice President and Corporate Secretary

In August 2016, Mr. Kramer joined the company as president and chief executive officer and Dr. McWilliams transitioned from our president and chief executive officer to the executive chairman role. In October 2016, Mr. Griffin's employment ended with us. Effective April 2017, Dr. McWilliams transitioned from the executive chairman to the non-executive chairman role and commenced service with us as a consultant. In April 2017, Mr. Neely retired, ending his employment with us though we have retained him as a consultant on a part time basis to aid transitioning his role to Bill Roeschlein, who commenced service as our Chief Financial Officer in connection with Mr. Neely's retirement.

Executive Summary

2016 was a year of continued transition. In response to changing business conditions, we undertook a strategic effort to explore new opportunities and to consider alternatives to expand our offerings and our customer base in order to reduce our dependence on a relatively few number of customers.

The following table sets forth the key elements of our NEOs' compensation, along with the primary objective associated with each compensation element:

Compensation Element	Primary Objective
Base salary	To recognize ongoing performance of job responsibilities and provide a predictable source of income and to attract and retain employees.
Annual performance-based cash compensation	To emphasize annual corporate and individual objectives that contribute directly to the company's success and to provide reward opportunities for our NEOs (and employees generally) when key business and individual objectives are met.
Long-term equity incentive compensation	To motivate and reward achievement of long-term performance objectives and increases in stockholder value; to emphasize and reinforce our focus on team success; and to attract and retain our NEOs.
Severance and change in control benefits	To encourage the continued attention and dedication of our NEOs and provide reasonable individual security to enable our NEOs to focus on the company's best interests, particularly when considering strategic alternatives.
Retirement savings (401(k)) plan	To provide retirement savings in a tax-efficient manner.
Health and welfare benefits	To provide a basic level of financial protection from health, dental, disability and loss of life risks.

To serve the foregoing objectives, our overall compensation program is generally designed to be flexible, with the elements complementing each other, rather than being purely formulaic. In alignment with the objectives set forth above, our compensation committee has generally determined the overall compensation of our NEOs and its allocation among the elements described above, relying on the analyses and advice provided by its compensation consultant as well as on input from our management team.

Our compensation decisions for the NEOs in 2016, including each of the key elements of our executive compensation program, are discussed in more detail below. This discussion is intended to be read in conjunction with the executive compensation tables and related disclosures immediately following this Compensation Discussion and Analysis.

Determination of Compensation

Roles of Our Compensation Committee and Chief Executive Officer in Compensation Decisions

Our compensation committee is responsible for overseeing our executive compensation program, as well as determining and approving the ongoing compensation arrangements for our NEOs other than our executive chairman and chief executive officer, for whom our compensation committee recommends compensation arrangements to the full board of directors (excluding the executive chairman). The compensation committee meets periodically throughout the year to review and consider adjustments (or, with respect to our executive chairman and chief executive officer, recommend adjustments), if any, to our NEOs' compensation, including base salary, annual performance-based cash compensation (bonuses) and long-term incentive compensation (in the form of equity awards). The full board of directors (excluding the executive chairman) is responsible for establishing, reviewing and adjusting compensation for our executive chairman and chief executive officer, generally based on recommendations

from our compensation committee. Accordingly, for 2016, the board of directors determined each individual component of compensation for our executive chairman and chief executive officer and the compensation committee determined each individual component of compensation for our other NEOs as part of our annual compensation review.

Our executive chairman and chief executive officer evaluates the individual performance and contributions of each other NEO and, at least annually, reports to the compensation committee their recommendations regarding each element of the other NEOs' compensation. Neither our executive chairman nor our chief executive officer participate in any formal discussions with the compensation committee or the board of directors regarding their own compensation.

We do not generally rely on formulaic guidelines for determining the mix or levels of cash and equity-based compensation, but rather maintain a flexible compensation program that allows us to adapt components and levels of compensation to motivate and reward individual NEOs within the context of our desire to attain financial and operational goals. Subjective factors considered by the board of directors and the compensation committee in compensation determinations include each NEO's skills and capabilities, contributions as a member of the executive management team, contributions to our overall performance and whether the total compensation potential and structure is sufficient to retain the NEO when considering the compensation potential that may be available elsewhere.

Competitive Market Data and Engagement of Compensation Consultants

The market for experienced management is highly competitive in our industry. Our goal is to attract and retain the most highly qualified executives to manage each of our business functions. In doing so, we draw upon a pool of talent that is highly sought after both by large and established technology companies in our geographic area and by other competitive companies in development and early stage phases. Established organizations in our industry seek to recruit top talent from emerging companies in the sector just as smaller organizations look to attract and retain the best talent from the industry as a whole. The competition for technical and non-technical skills is aggressive across our sector, and we expect it to remain aggressive for the foreseeable future.

Our compensation committee, in the case of our NEOs other than our executive chairman and chief executive officer, and the board of directors, in the case of our executive chairman and chief executive officer, make determinations regarding compensation in large part based upon our financial resources, but also consider competitive market data.

Our compensation committee directly engages Compensia, Inc. ("Compensia"), an independent compensation consultant, to assist the committee in the continuing analysis of our executive compensation program. Services provided by Compensia during 2016 included: (i) providing compensation survey data from peer companies; and (ii) advising on the reasonableness of the executive chairman's compensation.

The peer group we used for establishing the 2016 compensation program was selected by the compensation committee in November 2015, following discussions among the compensation committee and Compensia. The 2016 peer group members consist of semiconductor and electronics manufacturing, design and intellectual property-related companies with annual revenues ranging from approximately \$50 to \$250 million. The peer group members also possessed market capitalizations, geographic locations and employee numbers comparable to those of our company at the end of 2015. The following are the companies that comprise the peer group used for 2016 compensation programs, which is the same peer group used in 2015:

Acacia Research	GSI Technology	QuickLogic
CEVA	Immersion	RPX
DSP Group	Inphi	Rubicon Technology
DTS	MaxLinear	Tessera Technologies
Entropic Communications	PDF Solutions	
Exar	Pericom Semiconductor	

For 2017 compensation decisions, the peer group will remain the same, other than the elimination of Entropic Communications and Pericom Semiconductor, both of whom were acquired during 2016 by other companies.

After review and consultation with Compensia, the compensation committee determined that Compensia is independent and that there is no conflict of interest resulting from retaining Compensia currently or during 2016 that would prevent Compensia from providing independent and objective advice to the compensation committee.

Executive Compensation Philosophy and Objectives

We operate in a highly competitive and dynamic technology industry, which is characterized by frequent technological advances and rapidly changing market requirements. To succeed in this environment, we must continuously develop and refine new and existing products and services, and to achieve these objectives, we need a highly talented and seasoned team of technical, sales, marketing, operations, financial and other business professionals. Our executive compensation philosophy recognizes that, given that the market for experienced management is highly competitive in our industry, key and core to our success is our ability to attract and retain the most highly-qualified executives to manage each of our business functions. We believe that executive officer compensation should be structured to provide competitive base salaries and benefits, as well as the opportunity to participate in our company's continued growth as an option holder and/or stockholder, in order to motivate our executives to attain established financial, operational and other goals that we believe will lead to an increase in stockholder value.

In determining the form and amount of compensation payable to the NEOs, we are guided by the following objectives and principles:

- Compensation levels should be competitive to attract and retain key executives, and should reflect internal parity. We aim to provide an executive compensation program that attracts, motivates and retains high performance individuals and rewards them for our achieving and maintaining a competitive position in our industry. Total compensation (i.e., maximum achievable compensation) should increase with position and responsibility.
 - Compensation should relate directly to performance, and incentive compensation should constitute a significant portion of total compensation. We aim to foster a pay-for-performance culture, with a significant portion of total compensation being "at risk." Accordingly, a significant portion of total compensation should be tied to and vary with our financial, operational and strategic performance, as well as individual performance. Executives with greater roles and the ability to directly impact our strategic goals and long-term results should bear a greater proportion of the risk that these goals and results are not achieved. The amount of "at risk" pay is determined accordingly.
 - Long-term incentive compensation should align executives' interests with our stockholders' interests, and should reinforce a culture of ownership, excellence and responsiveness. Awards of long-term incentives, including equity-based compensation, encourage executives to focus on our long-term growth and prospects and motivate executives to manage the company from the perspective of stockholders with a meaningful stake in our success, as well as to focus on a long-term career orientation.
 - Compensation should enable executives to share in the success that they help create. We aim to motivate and reward our executive officers whose knowledge, skills and performance ensure our continued success. Our compensation programs are designed to recognize the impact of our executive officers on our company's achievements.
- We view the components of our executive compensation program as related but distinct, and we regularly reassess the total compensation of our NEOs to ensure that our overall compensation objectives are met. We have considered, but not relied exclusively upon, the following factors in determining the appropriate level for each compensation component: (i) our understanding of the competitive market based on the collective experience of members of our compensation committee and their review of compensation surveys; (ii) our recruiting and retention goals; (iii) our view of internal parity and consistency; (iv) the length of service of our executive officers; and (v) our overall performance and other considerations that our compensation committee determines are relevant.

Each of the primary elements of our executive compensation program is discussed in more detail below. While we have identified particular compensation objectives that each element of executive compensation serves, our compensation program as a whole is designed to be flexible, such that the components are complementary and collectively serve all of the executive compensation objectives described above. Accordingly, we believe that, as a part of our overall executive compensation policy, each individual element contributes to our compensation objectives and that, collectively, they are effective in achieving our overall objectives.

Elements of Executive Compensation Program

The following describes the primary components of our executive compensation program for each of our NEOs, the rationale for that component and how compensation amounts are determined.

Base Salary

Historically, we provided our executive officers, including our NEOs, with a base salary to compensate them for services rendered to our company during the fiscal year, which is intended to be generally aligned with competitive practices and targeted at the 50th percentile level of our peer group. The base salary payable to each NEO is intended to provide a fixed and reliable component of compensation reflecting the executive's skill set, experience, role and responsibilities. Generally, initial base salary amounts were established at the time of hiring based on consideration of, among other factors, the scope of the NEO's responsibilities, level of experience and the compensation committee's general knowledge of the competitive market, including its experience with other companies and our industry and comparative market data. However, currently salaries are above the [75th] percentile of our peer group, due in part to the need to attract and retain executives in an uncertain business climate.

The initial base salaries of our NEOs were established through arms-length negotiations, including Mr. Kramer's base salary in connection with his commencement of employment in August 2016. The base salaries of our NEOs are reviewed annually by the compensation committee and merit salary increases are made as deemed appropriate. No base salary increases were approved for our NEOs during 2016.

The base salaries for our NEOs are set forth in the table below and the total base salaries paid to our NEOs in 2016 are set forth below in the "Summary Compensation Table."

NEO	Base Salary 2016
Bruce M. McWilliams	\$600,000
Christian F. Kramer	\$425,000
C. Richard Neely, Jr.	\$300,000
Scot A. Griffin	\$350,000

Annual Performance-Based Cash Compensation

We use cash bonuses to motivate our NEOs to achieve financial and strategic objectives of immediate importance while making progress towards our longer-term growth and other goals, as well as to recognize superior work performance by our NEOs. Historically, our annual performance-based cash compensation program has been based on the achievement of selected corporate objectives, individual performance and target bonus amounts assigned to each NEO under our bonus program. In addition, the compensation committee has retained its discretion to award cash bonuses to those NEOs whose work performance was considered to be superior or of high importance to the long term achievement of our business objectives.

For fiscal year 2016, we developed performance objectives and established the following target bonus opportunities for our NEOs expressed as a percentage of each such executive's base salary: Dr. McWilliams' target bonus opportunity was 67%; Mr. Kramer's target bonus opportunity was 67% (pro-rated for 2016); Mr. Neely's target bonus opportunity was 50%; and Mr. Griffin's target bonus opportunity was 60%. The maximum bonus was capped at 125% of each NEOs target bonus opportunity.

Our corporate objectives for 2016 related to the achievement of pre-established business development and financial targets relating to revenue, margin and cash. We believe that reference to these corporate objectives under our bonus program is appropriate, as achievement of these objectives is related to and reflective of our progress toward our long-term business objectives.

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The 2016 pre-established corporate performance objective and relevant weightings for the components of the objectives are set forth in the table below.

	Weighting of Performance Objective (%)	
2016 Performance Objective	of Target)	
EBITDA break even	10	%
Q4 revenue of \$17 million	20	%
2017 Potential Revenue	20	%
Expand non-semiconductor revenue	10	%
New memory customers	5	%
One top tier logic customer	5	%
Licensed product ready for 2017 launch	10	%
Introduce Informatics 2.0	10	%
Contribution margin improvement	10	%
Total Weighting:	100	

Under the cash bonus program, the company's achievement of at least \$56 million in revenue for the 2016 fiscal year was required in order for our NEOs to be eligible for cash bonuses under the "performance objectives" provision of the program. The company's revenue in fiscal 2016 was \$47.3 million and therefore, none of our NEOs received a cash bonus under the program.

Notwithstanding the above, in March 2016, paid a special bonus to Mr. Neely of \$100,000 as an incentive to continue to provide services to us and, in August 2016, we paid Mr. Kramer a sign-on bonus equal to \$35,416 pursuant to his offer letter.

Long-Term Equity-Based Incentives

We grant long-term equity-based awards in order to reward and encourage long-term corporate performance based on the value of our common stock and, thereby align the interests of our executive officers, including our NEOs, with those of our stockholders. We maintain the 2011 Incentive Award Plan, or the 2011 Plan, to attract and retain the best available personnel for positions of substantial responsibility, to provide equity incentives to our employees, consultants and non-employee directors and to promote the success of our business. We do not currently have any formal stock ownership requirements or guidelines for our NEOs, given the limited market for our securities. We expect to continue to periodically review best practices and re-evaluate our position with respect to such requirements or guidelines.

Equity Award Grant Practices

Generally, each year the compensation committee, based on recommendations from our executive chairman or chief executive officer (other than with respect to their own equity awards) and its review of competitive market survey data, approves a pool of shares to be awarded to employees under annual equity awards and reserves a portion of the pool for equity awards to be granted to the executive management team. However, there is no set program for equity incentive awards, and our compensation committee retains discretion to grant equity awards to employees at any time,

including in connection with the hiring or promotion of an employee, to reward an employee for exceptional performance or for retention purposes.

Stock options have a per share exercise price that is not less than the closing trading price of a share of our common stock on the grant date. Historically, stock options, restricted stock and restricted stock units have vested over a four-year period, although beginning in 2014, we began granting certain retention grants with shorter vesting periods. The vesting of all equity awards is contingent upon the NEOs continued employment through the vesting date. We believe the vesting schedules for our stock options, restricted stock and restricted stock unit awards appropriately encourage long-term employment with our company while allowing our executives to realize compensation in line with the value they have created for our stockholders.

In August of 2016, in connection with his hiring as president and chief executive officer, the board of directors granted a stock option to purchase 1,000,000 shares to Mr. Kramer. The option will vest with respect to one quarter of the shares on the one year anniversary of the grant date and then in equal monthly installments over the next three years, subject to his continued service to us through the applicable vesting date.

In September of 2016, Dr. McWilliams surrendered \$1,005,000 unvested and unexercisable stock options that were cancelled for no consideration by mutual agreement between Dr. McWilliams and the company. Also in September, the board of directors granted to Dr. McWilliams 200,000 restricted stock units that vest on the attainment of a certain financial metric or, if earlier, the fourth anniversary of the date of grant, subject to his continued service to us through the applicable vesting date.

Messrs. Neely and Griffin did not receive any equity awards in 2016, based on the significant awards made in 2015.

Retirement Savings

We maintain a qualified retirement savings plan under section 401(k) of the Internal Revenue Code of 1986, as amended, or the Code, to provide retirement benefits to our eligible employees. Eligible employees may defer a portion of their compensation, within limits prescribed under the Code, on a pre-tax basis to the 401(k) plan. Historically (including during 2016), the 401(k) plan has been funded entirely with employee contributions.

Employee Benefits and Perquisites

All of our full-time employees, including our NEOs, are eligible to participate in our health and welfare plans, including:

- medical, dental and vision benefits;
- medical and dependent care flexible spending accounts;
- short-term and long-term disability insurance; and
- life insurance.

We believe that these benefits comprise key elements of a comprehensive compensation program. Our health and welfare benefits help ensure that the compensation packages of our NEOs are market competitive. Our employee benefit programs are designed to be affordable and competitive in relation to the market. In 2016, pursuant to his offer letter entered into with the company, we reimbursed Mr. Kramer for his moving expenses for an aggregate payment of \$22,314 in connection with his relocation to the San Francisco Bay Area in August 2016. Other than Mr. Kramer's relocation, none of our executive officers, including our NEOs, received any personal benefits or perquisites that were not made generally available to our other full-time employees.

Severance and Change in Control Benefits

As described more fully below in the section entitled "Potential Payments Upon Termination or Change in Control," we have entered into change in control severance agreements and/or employment agreements with our NEOs that provide for various severance and change in control benefits. We believe that the protections contained in these agreements help to ensure the day-to-day stability necessary to enable our NEOs to properly focus their attention on their duties and responsibilities with our company and provide security with regard to some of the most uncertain events relating to continued employment, thereby promoting productivity.

Impact of Say-On-Pay Advisory Vote

At our 2016 annual meeting, holders of approximately 85% of our common stock voted to approve the compensation of the NEOs. Although this "say-on-pay" vote is advisory and non-binding, the compensation committee values the input of our stockholders and considered the outcome of the vote when determining our executive compensation

program for 2016. The compensation committee intends to continue to take into

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consideration the outcome of our stockholders' future advisory say-on-pay votes when making future compensation decisions for the NEOs. Our board of directors previously determined to hold a say-on-pay advisory vote on the compensation of our NEOs every year. Accordingly, we expect that our next say-on-pay proposal (following our 2017 annual meeting) will be submitted to our stockholders for an advisory vote at the annual meeting of our stockholders in 2018.

Tax and Accounting Considerations

Internal Revenue Code Section 162(m). Generally, Section 162(m) of the Code, or Section 162(m), disallows a tax deduction for any publicly-held corporation for individual compensation exceeding \$1.0 million in any taxable year to its chief executive officer and each of its other NEOs, other than its chief financial officer, unless compensation qualifies as "performance-based compensation" within the meaning of the Code. Where reasonably practicable and to the extent that the Section 162(m) deduction disallowance becomes applicable to our company, our compensation committee may seek to qualify the variable compensation paid to our NEOs for an exemption from the deductibility limitations. As such, in approving the amount and form of compensation for our NEOs, our compensation committee considers all elements of the cost to us of providing such compensation, including the potential impact of Section 162(m). However, our compensation committee may, in its judgment, authorize compensation payments that do not comply with the exemptions in Section 162(m) when it believes that such payments are appropriate to attract and retain executive talent.

Internal Revenue Code Section 409A. Section 409A of the Code requires that "nonqualified deferred compensation" be deferred and paid under plans or arrangements that satisfy the requirements of the Code with respect to the timing of deferral elections, timing of payments and certain other matters. Failure to satisfy these requirements can expose employees and other service providers to accelerated income tax liabilities, penalty taxes and interest on their vested compensation under such plans. Accordingly, as a general matter, we intend to design and administer our compensation and benefits plans and arrangements for all of our employees and other service providers, including our NEOs, so that they are either exempt from or comply with the requirements of Section 409A of the Code.

Internal Revenue Code Section 280G. Section 280G of the Code, or Section 280G, disallows a tax deduction with respect to excess parachute payments to certain executives of companies that undergo a change in control. In addition, Section 4999 of the Code, or Section 4999, imposes a 20% excise tax on the individual with respect to the excess parachute payment. Parachute payments are compensation linked to, or triggered by, a change in control and may include, but are not limited to, bonus payments, severance payments, certain fringe benefits, and payments and acceleration of vesting of awards granted pursuant to long-term incentive plans including stock options and other equity-based compensation. Excess parachute payments are parachute payments that exceed a threshold determined under Section 280G based on the executive's prior compensation. In approving the compensation arrangements for our NEOs, our compensation committee considers all elements of the cost to the company of providing such compensation, including the potential impact of Section 280G. However, our compensation committee may, in its judgment, authorize compensation arrangements that could give rise to loss of deductibility under Section 280G and the imposition of excise taxes under Section 4999 when it believes that such arrangements are appropriate to attract and retain executive talent.

Accounting for Stock-Based Compensation. We follow ASC Topic 718, for our stock-based compensation awards. ASC Topic 718 requires companies to calculate the grant date "fair value" of their stock-based awards using a variety of assumptions. ASC Topic 718 also requires companies to recognize the compensation cost of their stock-based awards in their income statements over the period that an employee is required to render service in exchange for the award. Grants of stock options, restricted stock, restricted stock units and other equity-based awards under our equity incentive award plans will be accounted for under ASC Topic 718. Our compensation committee regularly considers the accounting implications of significant compensation decisions, particularly in connection with decisions that relate to our equity incentive award plans and programs. As accounting standards change, we may revise certain programs to appropriately align accounting expenses of our equity awards with our overall executive compensation philosophy and

objectives.

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Summary Compensation Table

The following table sets forth information concerning the compensation of our NEOs for the years ended December 31, 2016, December 31, 2015 and December 31, 2014, as appropriate.

Name and Position	Year	Salary (\$)	Bonus (\$) (1)	Stock Awards (\$) (2)	Option Awards (\$) (2)	Non-Equity	All Other	Total (\$)
						Plan Compensation (\$)	Compensation (\$) (3)	
Christian F. Kramer (4) President and Chief Executive Officer	2016	173,542	35,416	—	1,350,000	—	22,314	1,581,272
Bruce M. McWilliams (5) Non-Executive Chairman of the Board, Former Executive Chairman and Former President and Chief Executive Officer	2016	600,000	—	198,000	—	—	—	798,000
	2015	600,000	—	—	—	267,244	—	867,244
	2014	131,923	—	—	3,493,440	—	250,334	3,875,697
C. Richard Neely, Jr. (6) Former Senior Vice President and Chief Financial Officer	2016	300,000	100,000	—	—	—	—	400,000
	2015	300,000	40,000	—	240,960	99,718	—	680,678
	2014	293,125	40,000	221,700	165,256	—	—	720,081
Scot A. Griffin (7) Former Executive Vice President and Corporate Secretary	2016	263,846	—	—	—	—	206,118	469,964
	2015	328,958	—	—	520,000	139,605	—	988,563
	2014	71,458	—	—	588,240	—	30,000	689,698

(1) Amounts reflect: (1) a sign-on bonus paid to Mr. Kramer in connection with his commencement of employment with us in August 2016, pursuant to his offer letter and (2) a special bonus paid to Mr. Neely as an incentive to continue to provide services to us.

(2) Amounts reflect the grant date fair value of restricted stock awards and stock options, computed in accordance with ASC Topic 718. The assumptions used to calculate the value of all restricted stock and stock options granted to NEOs are set forth in Note 7 to our consolidated financial statements included in our 2016 Annual Report on Form 10-K filed with the SEC on March 3, 2017. There can be no assurance that awards will vest or, with respect to stock options, will be exercised (and if the awards do not vest or are not exercised, as applicable, no value will

be realized by the individual), or that the value of the stock options upon exercise will approximate the aggregate grant date fair value determined under ASC Topic 718.

- (3) Amounts reflect: (1) for Mr. Kramer, the moving expenses we reimbursed Mr. Kramer in connection with his relocation to the San Francisco Bay Area in August 2016, pursuant to his offer letter and (2) for Mr. Griffin, the cash severance payment of \$175,000 paid to him in connection with his separation of employment with us in October 2016 plus \$19,779 in unused paid time off and \$11,339 for COBRA healthcare.
- (4) Mr. Kramer joined us on August 4, 2016.
- (5) Dr. McWilliams ceased serving as our President and Chief Executive Officer in August 2016, transitioning to the role of Executive Chairman as of such date. Dr. McWilliams resigned as our Executive Chairman effective April 3, 2017 and he transitioned to serve as a consultant to us in addition to becoming the non-executive chairman of our board of directors.
- (6) Mr. Neely retired effective April 3, 2017 and he transitioned to serve as a consultant to us to assist in the transition of his duties and responsibilities.
- (7) Mr. Griffin's employment with us ended on October 3, 2016.

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Grants of Plan-Based Awards Table

The following table sets forth information regarding annual cash incentive awards under our non-equity incentive plan program and grants of plan-based awards made to our NEOs for the year ended December 31, 2016:

Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards			All Other Stock Awards: Number of Shares of Stock (#) (2)	All Other Option Awards: Number of Securities Underlying Options(#) (2)	Exercise Price of Option Awards (\$/Sh) (3)	Grant Date Fair Value of Stock and Option Awards (\$ (3)
		Threshold \$ (1)	Target \$ (1)	Maximum \$ (1)				
Christian F. Kramer	September 5, 2016	59,028	118,056	147,570	—	1,000,000	1.35	1,350,000
Bruce M. McWilliams	September 28, 2016	200,000	400,000	500,000	200,000	—	—	198,000
C. Richard Neely, Jr.		75,000	150,000	187,500	—	—	—	—

(1) Amounts in these columns represent the threshold, target and maximum payout amounts that our Named Executive Officers could earn under our non-equity incentive plan program with respect to performance during the fiscal year ended December 31, 2016.

(2) Represents equity awards granted during 2016, as follows:

- The stock option granted on September 5, 2016 to Mr. Kramer vest with respect to 25% of the shares, on the first anniversary of the grant date, and with respect to 1/48th of the shares, on each monthly anniversary of the grant date thereafter, subject to his continued service to us through the applicable vesting date.

The restricted stock units granted on September 27, 2016 to Dr. McWilliams vest upon the attainment of a certain financial metric or, if earlier, the fourth anniversary of the date of grant, subject to his continued service to us through the applicable vesting date.

(3) Amounts reflect the full grant date fair value of stock options granted in 2016, computed in accordance with ASC Topic 718. The assumptions used to calculate the value of all restricted stock and stock option awards made to NEOs are set forth in Note 7 to our consolidated financial statements included in our Annual Report on Form 10-K filed with the SEC on March 3, 2017.

Outstanding Equity Awards at Fiscal Year End

The following table sets forth information regarding outstanding equity awards held as of December 31, 2016 by our NEOs:

Name	Grant Date	Option Awards				Stock Awards	
		Number of Securities Underlying Unexercised Options (#)	Number of Securities Underlying Unexercised Options (#)	Option Exercise Price (\$/Share)	Option Expiration Date	Number of Shares or Units of Stock that Have Not Vested (#)	Market Value of Shares or Units of Stock that Have Not Vested (\$)(3)
Bruce M. McWilliams	February 25, 2009	30,000		2.00	February 24, 2019		
	May 30, 2012	10,000		6.62	May 29, 2022		
	May 29, 2013	10,000		8.21	May 28, 2023		
	May 28, 2014	10,000		2.59	May 27, 2024		
	June 13, 2014	75,000		2.29	June 12, 2024		
	October 12, 2014	1,560,000	315,000	2.25	October 11, 2024	200,000	190,000
	September 28, 2016						
Christian F. Kramer	September 5, 2016		1,000,000	1.35	September 4, 2026		
C. Richard Neely, Jr.	November 7, 2013	166,250	43,750	5.56	November 6, 2023		
	November 7, 2013					10,000	9,500
	February 26, 2014	10,625	4,375	3.85	February 25, 2024		
	February 26, 2014					5,000	4,750
	June 13, 2014	110,000		2.29	June 12, 2024		
	February 26, 2015	275,000	25,000	1.73	February 25, 2025		
Scot A. Griffin	October 12, 2014	230,000	—	2.25	January 1, 2017		
	April 3, 2015	103,125	—	1.66	January 1, 2017		

(1) The stock options vest as follows:

• The stock option granted to Dr. McWilliams on October 12, 2014, vests in equal monthly installments over the four years following October 12, 2014, subject to his continued service to us through the applicable vesting date.

• The stock option granted on September 5, 2016 to Mr. Kramer vests with respect to 25% of the shares, on the first anniversary of the grant date, and with respect to 1/48th of the shares, on each monthly anniversary of the grant date thereafter, subject to his continued service to us through the applicable vesting date.

• The stock options granted to Mr. Neely, other than those granted on February 26, 2015, vest with respect to 25% of the shares, on the first anniversary of the grant date, and with respect to 1/48th of the shares, on each monthly anniversary of the grant date thereafter, subject to his continued service to us through the applicable vesting date. The stock option granted on February 26, 2015, to Mr. Neely vests in equal monthly installments over the two years

following February 26, 2015, subject to his continued service to us through the applicable vesting date.

- (2) The restricted stock units granted on September 28, 2016 to Dr. McWilliams vest upon the earlier occurrence of certain performance triggers or four years, subject to his continued service to us through the applicable vesting date. The restricted stock awarded to Mr. Neely vests in four substantially equal installments on each anniversary of his hiring date, subject to his continued service to us through the applicable vesting date.
- (3) Calculated based on the closing trading price of our common stock on December 30, 2016 (\$0.95).
- (4) Mr. Griffin's employment with us terminated in October 2016, and in connection with such termination he forfeited all unvested shares subject to his options and had until January 2016 to exercise the vested shares subject to his options.

2016 Option Award Exercises and Stock Awards Vested

No stock option awards were exercised by our NEOs during 2016. The table below sets forth the restricted stock awards held by our NEOs which vested during 2016:

Executive	Stock Awards	
	Number of Shares Acquired on Vesting	Value Realized on Vesting (\$)
C. Richard Neely, Jr.	12,500	15,345

(1) Calculated based on the closing trading price of our common stock on the applicable date of vesting of the stock award.

Potential Payments upon Termination or Change in Control

Change in Control Severance Agreements

We have entered into change in control severance agreements (the "CIC Severance Agreements") with each of Messrs. Kramer and Neely. Under the terms of these agreements, each of these NEOs would be entitled to the payments and benefits described below upon a qualifying termination of employment. Dr. McWilliams' potential severance benefits are included in his employment agreement described below.

Change in Control and Involuntary Termination

If either Messrs. Kramer or Neely's employment is terminated by us other than for "cause" or by them for "good reason" (each as defined in the CIC Severance Agreement) on or within the one-month period preceding, or the one-year period following, a "change in control" (as defined in the CIC Severance Agreement), they will be entitled to:

- the payment of accrued salary, bonus, vacation and expense reimbursement;
- accelerated vesting of all equity compensation then held by them (to the extent then unvested);
- a lump sum payment equal to, in the case of Mr. Kramer, 18 months base salary and target annual bonus, and in the case of Mr. Neely, 12 months base salary and target annual bonus; and
- company-paid premiums for COBRA continuation coverage for, in the case of Mr. Kramer, up to 18 months after the date of termination, and in the case of Mr. Neely, up to 12 months after the date of termination.

Involuntary Termination

If Messrs. Kramer or Neely's employment is terminated by us other than for "cause" or by them for "good reason" at any time other than the period beginning one month preceding and ending one year following a "change in control," they will be entitled to:

- the payment of accrued salary, bonus, vacation and expense reimbursement;
- a lump sum payment equal to, in the case of Mr. Kramer, 12 months of annual base salary, and in the case of Mr. Neely, six months of annual base salary; and

company-paid premiums for COBRA continuation coverage for, in the case of Mr. Kramer, up to 12 months after the date of termination, and in the case of Mr. Neely, up to six months after the date of termination.

Messrs. Kramer and Neely's right to receive the severance payments described above is subject to continued compliance with certain restrictive covenants and the applicable executive's delivery of an effective general release of claims in favor of the company.

Summary of Potential Payments

The following table summarizes the payments that would be made to our NEOs upon the occurrence of certain qualifying terminations of employment in connection with a change in control, assuming such NEO's termination of employment with us occurred on December 31, 2016 and, where relevant, that a change in control of Intermolecular occurred on December 31, 2016. Amounts shown in the table below are subject to continued compliance with certain restrictive covenants and the applicable executive's delivery of an effective general release of claims in favor of the company. Amounts shown in the table below do not include accrued but unpaid salary or other benefits earned or accrued by the NEO that are available to all salaried employees, such as accrued paid time off (PTO). Mr. Griffin's service was terminated in October 2016, so the amounts in the table below reflect the actual amounts paid to Mr. Griffin pursuant to his separation agreement.

Name	Benefit	Termination Without Cause, For Good Reason (No Change of Control) (\$)(1)(4)	Termination Without Cause, For Good Reason In Connection with a Change of Control (\$)(2)(3)(4)
Bruce M. McWilliams	Cash Severance	150,000	1,302,000
	Accelerated Vesting	—	489,250
	Healthcare Continuation	16,940	50,819
Christian F. Kramer	Cash Severance	425,000	922,250
	Accelerated Vesting	—	950,000
	Healthcare Continuation	34,275	51,413
C. Richard Neely, Jr.	Cash Severance	150,000	450,000
	Accelerated Vesting	—	83,719
	Healthcare Continuation	11,834	23,667
Scot A. Griffin (5)	Cash Severance	175,000	—
	Accelerated Vesting	—	—
	Healthcare Continuation	11,339	—

- (1) Represents a lump sum cash severance payment equal to three months (Dr. McWilliams) or six months (all other NEOs) of the NEO's annual base salary.
- (2) Cash Severance represents a lump sum cash severance payment equal to 1.5 times (Dr. McWilliams and Mr. Kramer) or one times (all other NEOs) the sum of the NEO's annual base salary and target bonus for 2016.
- (3) Accelerated Vesting represents the aggregate value of the NEO's unvested equity awards that would have vested on an accelerated basis. The value of stock options was determined by multiplying the number of accelerating option shares by the closing trading price of our common stock on December 31, 2016 (\$0.95) and subtracting the applicable exercise prices. The value of restricted stock awards was determined by multiplying the number of accelerating restricted shares by the closing trading price of our common stock on December 31, 2016 (\$0.95).
- (4) Healthcare Continuation represents the aggregate full premium payments that would be required to be paid to or on behalf of the NEO to provide continued health insurance coverage under COBRA (based on the executive's health insurance coverage as of December 31, 2016) for the payout period provided under each NEO's CIC Severance Agreement or employment agreement, as applicable.
- (5) In October 2016, Mr. Griffin's employment was terminated and, pursuant to a separation agreement entered into in connection with such termination, we paid to him a lump sum cash payment of \$175,000, which represented six months of his base salary, plus we agreed to provide him with company-paid premiums for COBRA continuation

coverage for up to six months after the date of his termination.
Employment Agreement with Dr. McWilliams

Under the terms of an employment agreement entered into between Dr. McWilliams and the company as of October 12, 2014, Dr. McWilliams (i) will receive a base salary of \$600,000 (prorated for any partial year of service); (ii) will be eligible to receive a discretionary annual performance bonus targeted at \$400,000 (prorated for

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any partial year of service); and (iii) was granted an option to purchase 2,880,000 shares of the company's common stock at a per share exercise price equal to the closing price of a share of common stock on the date of grant, which will vest in equal monthly installments over the four years following October 12, 2014 subject to Dr. McWilliams' continued service with the company through each vesting date. In September of 2016, Dr. McWilliams surrendered 1,005,000 of those unvested and unexercisable stock options for no consideration under a mutual agreement between Dr. McWilliams and the company. Dr. McWilliams' initial term of employment under the agreement is three years, which term will automatically renew for successive one year periods unless Dr. McWilliams or the company gives 90 days advance written notice of non-renewal.

In the event Dr. McWilliams is terminated by the company other than for "cause" or by Dr. McWilliams for "good reason" (as each such term is defined in the employment agreement), Dr. McWilliams will be entitled to receive (i) a lump sum payment equal to three months of his base salary as of his resignation date; and (ii) company-paid premiums for COBRA continuation coverage for up to six months after the date of his resignation, provided, that in the event such termination or resignation occurs within the period commencing one month prior to a "change in control" and ending on the first anniversary the "change in control" (as defined in the employment agreement), in lieu of the foregoing severance benefits, Dr. McWilliams will be entitled to receive (i) a lump sum payment equal to 1.5 times the sum of 12 months of his base salary as of his resignation date plus the target annual bonus for the year in which the termination occurs; (ii) company-paid premiums for COBRA continuation coverage for up to 18 months after the date of his resignation; and (iii) accelerated vesting of all equity awards then held by Dr. McWilliams. Dr. McWilliams must provide the company a release of claims in order to receive any severance benefits.

Separation Agreements with Dr. McWilliams and Messrs. Neely and Griffin

On April 3, 2017, Dr. McWilliams resigned as our executive chairman and transitioned to work as a consultant and serve as our non-executive chairman of the board of directors. In connection with his resignation, we entered into a separation agreement pursuant to which we paid Dr. McWilliams a lump sum cash payment of \$150,000, which represented three months of his base salary, plus we agreed to provide him with company-paid premiums for COBRA continuation coverage for up to 12 months after the date of his resignation, in exchange for a general release of claims against us and our affiliates. Dr. McWilliams equity awards will continue to vest in accordance with their original vesting schedules since he will continue to provide services to us as a non-employee member of our board of directors.

On April 3, 2017, Mr. Neely retired and transitioned to work as a consultant to assist us with the transition of his duties. In connection with his retirement, we entered into a separation agreement pursuant to which we paid Mr. Neely a lump sum cash payment of \$150,000, which represented six months of his base salary, plus we agreed to provide him with company-paid premiums for COBRA continuation coverage for up to six months after the date of his retirement, in exchange for a general release of claims against us and our affiliates. Mr. Neely's unvested shares subject to his outstanding award were forfeited as of April 3, 2017 and he has until July 3, 2017 to exercise the vested shares subject to his outstanding options.

On October 3, 2016, Mr. Griffin terminated his service with us. In connection with his termination, we entered into a separation agreement pursuant to which we paid Mr. Griffin a lump sum cash payment of \$175,000, which represented six months of his base salary, plus we agreed to provide him with company-paid premiums for COBRA continuation coverage for up to six months after the date of his termination, in exchange for a general release of claims against us and our affiliates. Mr. Griffin's unvested shares subject to his outstanding award were forfeited as of October 3, 2016 and he had until January 3, 2017 to exercise the vested shares subject to his outstanding options.

Limitation of Liability and Indemnification

Our amended and restated certificate of incorporation and amended and restated bylaws provide that we indemnify our directors, officers, employees and agents to the fullest extent permitted by the Delaware General Corporation Law, which prohibits our amended and restated certificate of incorporation from limiting the liability of our directors for the following:

- any breach of the director's duty of loyalty to us or to our stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
 - unlawful payment of dividends or unlawful stock repurchases or redemptions; and
- any transaction from which the director derived an improper personal benefit.

If Delaware law is amended to authorize corporate action further eliminating or limiting the personal liability of a director, then the liability of our directors will be eliminated or limited to the fullest extent permitted by Delaware law, as so amended. Our amended and restated certificate of incorporation does not eliminate a director's duty of care and, in appropriate circumstances, equitable remedies, such as injunctive or other forms of non-monetary relief, remain available under Delaware law. This provision also does not affect a director's responsibilities under any other laws, such as the federal securities laws or other state or federal laws. Under our amended and restated bylaws, we are also empowered to enter into indemnification agreements with our directors, officers, employees and other agents and to purchase insurance on behalf of any person whom we are required or permitted to indemnify.

In addition to the indemnification required in our amended and restated certificate of incorporation and amended and restated bylaws, we have entered into indemnification agreements with each of our current directors, officers and certain employees. These agreements provide for the indemnification of our directors, officers and certain employees for all reasonable expenses and liabilities incurred in connection with any action or proceeding brought against them by reason of the fact that they are or were our agents. We believe that these provisions in our amended and restated certificate of incorporation and amended and restated bylaws and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. Furthermore, we have obtained director and officer liability insurance to cover liabilities our directors and officers may incur in connection with their services to us. This description of the indemnification provisions of our amended and restated certificate of incorporation, our amended and restated bylaws and our indemnification agreements is qualified in its entirety by reference to these documents, each of which is referenced as an exhibit to our Annual Report on Form 10-K filed with the SEC on March 3, 2017.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. A stockholder's investment may be harmed to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. There is no pending litigation or proceeding naming any of our directors or officers as to which indemnification is being sought, nor are we aware of any pending or threatened litigation that may result in claims for indemnification by any director or officer.

Rule 10b5-1 Sales Plans

Historically, certain of our directors and executive officers have adopted written plans, known as Rule 10b5-1 Sales Plans, pursuant to which they have contracted with a broker to sell shares of our common stock on a periodic, non-discretionary basis. Under a Rule 10b5-1 Sales Plan, a broker executes trades pursuant to parameters established by the director or officer at the time he enters into the plan, but after establishing the plan the director or officer cannot

provide any additional direction to the broker. The director or officer may amend or terminate the plan in limited circumstances. Our directors and executive officers may adopt additional Rule 10b5-1 Sales Plans in the

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future, and they may also buy or sell shares of our common stock outside of a Rule 10b5-1 Sales Plan when they are not in possession of material, nonpublic information.

Equity Compensation Plan Information

The following table provides information about the securities authorized for issuance under our equity compensation plans as of December 31, 2016:

Plan Category	Number of Securities to be Issued upon Exercise of Outstanding Options and Vesting of Restricted Stock Units	Weighted-average Exercise Price of Outstanding Restricted Stock Units	Number of Securities Remaining Available for Future Issuance under Equity Compensation Plans (1)
Equity compensation plans approved			
by security holders (2)	10,048,600	(3) \$ 2.04	(4) 5,163,386
Equity compensation plans not approved by security holders	—	—	—
Total	10,048,600	\$	5,163,386

(1) Excludes securities to be issued upon the exercise of outstanding options, warrants and rights.

(2) Consists of the Intermolecular, Inc. 2011 Incentive Award Plan and the Intermolecular, Inc. 2004 Equity Incentive Plan (Amended and Restated September 5, 2007). We terminated the 2004 Plan on October 26, 2011 in connection with the adoption of the 2011 Plan. No new awards may be granted under the 2004 Plan following its termination, but awards outstanding at the time of termination remain outstanding in accordance with their terms.

(3) Excludes 28,750 shares that may be issued under restricted stock awards at December 31, 2016.

(4) Excludes 323,663 shares that may be issued under restricted stock unit awards.

SECURITY OWNERSHIP OF DIRECTORS AND EXECUTIVE OFFICERS AND
CERTAIN BENEFICIAL OWNERS

The following table sets forth, as of the March 22, 2017 (the Record Date), the total number of shares owned beneficially by each of our directors and NEOs, individually, all of our directors and executive officers as a group, and the present owners of 5% or more of our total outstanding shares.

Name and Address of Beneficial Owner	Shares Beneficially Owned	
	Number	Percentage
5% Stockholders		
Raging Capital Management, LLC (1)	14,731,351	29.7 %
Entities affiliated with Redpoint Ventures (2)	7,595,039	15.3 %
Entities affiliated with Presidio Partners 2014, L.P.(3)	4,035,322	8.1 %
U.S. Venture Partners (4)	4,280,779	8.6 %
Lloyd I. Miller, III (5)	4,375,998	8.8 %
Directors and Named Executive Officers		
Bruce M. McWilliams (6)	2,137,217	4.3 %
Christian F. Kramer (7)	—	*
C. Richard Neely, Jr. (8)	712,457	1.4 %
Bill Roeschlein (9)	52,750	*
Scot A. Griffin (10)	—	*
Thomas R. Baruch (11)	—	*
Marvin D. Burkett (12)	67,500	*
Irwin Federman (13)	4,591,676	9.3 %
George M. Scalise (14)	215,000	*
Wilbert van den Hoek (15)	18,750	*
Kenneth H. Traub (16)	14,731,351	29.7 %
Matthew Furnas (17)	14,731,351	29.7 %
All of our directors and executive officers as a group		
(12 persons) (18)	22,526,701	45.4 %

The number of shares beneficially owned by each stockholder is determined under rules issued by the SEC. Under these rules, beneficial ownership includes any shares as to which the individual or entity has sole or shared voting power or investment power. In addition, these rules provide that an individual or entity beneficially owns any shares issuable upon the exercise of stock options or warrants held by such person or entity that were exercisable on March 22, 2017 or within 60 days after March 22, 2017; and any reference in the footnotes to this table to stock options or warrants refers only to such options or warrants. In computing the percentage ownership of each individual and entity, the number of outstanding shares of common stock includes, in addition to the shares outstanding as of March 22, 2017, any shares subject to options or warrants held by that individual or entity that were exercisable on or within 60 days after March 22, 2017. These shares are not considered outstanding, however, for the purpose of computing the percentage ownership of any other stockholder. Each of the stockholders listed has sole voting and investment power with respect to the shares beneficially owned by the stockholder unless noted otherwise, subject to community property laws where applicable. Unless otherwise noted below, the address of each beneficial owner listed on the table is c/o Intermolecular, Inc., 3011 N. First Street, San Jose, California 95134.

*Represents a beneficial ownership of less than 1%.

(1)Based upon a Form 4 filed with the SEC on December 19, 2016. Consists of 14,731,351 shares held by Raging Capital Master Fund, Ltd., a Cayman Islands exempted company (Raging Master). Raging Capital Management, LLC, a Delaware limited liability company (Raging Capital), is the investment manager for Raging Master. William C. Martin is the chairman, chief investment officer and managing member of Raging Capital. By virtue of these relationships, each of Raging Capital and William C. Martin may be deemed to share voting and dispositive power over the shares held by Raging Master. The principal business address of each of Raging Capital and William C. Martin is Ten Princeton Avenue, PO Box 228, Rocky Hill, New Jersey

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08553. The principal business address of Raging Master is c/o Ogier Fiduciary Services (Cayman) Limited, 89 Nexus Way, Camana Bay, Grand Cayman KY 1-9007, Cayman Islands.

- (2) Based upon a Schedule 13G filed with the SEC on February 13, 2012. Consists of: (i) 7,423,391 shares held by Redpoint Ventures II, L.P. (RV II), and (ii) 171,648 shares held by Redpoint Associates II, LLC (RA II). Redpoint Ventures II, LLC (RV II LLC), a Delaware limited liability company, is the sole general partner of RV II. Voting and dispositive decisions with respect to shares held by RV II and RA II are shared by Jeffery D. Brody, R. Thomas Dyal, Timothy M. Haley, G. Bradford Jones, John L. Walecka and Geoffrey Y. Yang in their capacities as managing members of each of RV II and RA II. Each disclaims beneficial ownership of the shares held by these entities, except to the extent of any pecuniary interest therein. The address of each of the entities affiliated with Redpoint Ventures is 3000 Sand Hill Road, Building Two, Suite 290, Menlo Park, California 94025.
- (3) Based upon a Schedule 13G/A filed with the SEC on February 13, 2017. Consists of 4,035,322 shares held by Presidio Partners 2014, L.P. (Presidio LP). Presidio Partners 2014 GP, LLC (Presidio GP) is the sole General Partner of Presidio LP. As the sole General Partner of Presidio LP, Presidio GP may be deemed to beneficially own the shares and may be deemed to share voting and dispositive power over these shares. Peter Gajdos, David J. Collier, Faysal A. Sohail and James F. Watson are each a Manager of Presidio GP and, as such, may be deemed to beneficially own the shares and may be deemed to share voting and dispositive power over these shares. The address of each of the entities affiliated with Presidio L.P. is One Letterman Drive, Building C, Suite CM500, San Francisco, California 94129.
- (4) Based upon a Schedule 13G/A filed with the SEC on February 13, 2017. Consists of 4,280,799 shares held by U.S. Venture Partners IX, L.P. (USVP IX). Presidio Management Group IX, LLC (PMG IX) is the general partner of USVP IX. Each of Irwin Federman, Steven M. Krausz, David E. Liddle, Paul Matteucci, Jonathan D. Root, Casey M. Tansey and Philip M. Young are the managing members of PMG IX and may be deemed to shared voting and dispositive power over the shares held by USVP IX. Such persons disclaim beneficial ownership of the shares held by USVP IX, except to the extent of any pecuniary interest therein. The address of U.S. Venture Partners is 1460 El Camino Real, Suite 100, Menlo Park, California 94025.
- (5) Based upon a Schedule 13G/A filed with the SEC on January 30, 2017. The address of Mr. Miller is 3300 South Dixie Highway, West Palm Beach, Florida 33405.
- (6) Consists of: (i) 102,217 shares held by Bruce McWilliams Living Trust UA dated 09/24/2013, (ii) 40,000 shares held by Dr. McWilliams, and (iii) 1,995,000 shares that may be acquired pursuant to the exercise of stock options within 60 days of March 22, 2017.
- (7) Mr. Kramer joined us as President and Chief Executive Officer on August 4, 2016.
- (8) Mr. Neely's employment ended with us on April 3, 2017. Consists of: (i) 86,832 shares held by Mr. Neely, and (ii) 625,625 shares that may be acquired pursuant to the exercise of stock options within 60 days of March 22, 2017.
- (9) Mr. Roeschlein was appointed Chief Financial Officer on April 3, 2017. Consists of 52,750 shares that may be acquired pursuant to the exercise of stock options within 60 days of March 22, 2017.
- (10) Mr. Griffin's employment with us ended on October 3, 2016.
- (11) Mr. Baruch resigned from the board on December 17, 2016.
- (12) Consists of 67,500 shares that may be acquired pursuant to the exercise of stock options within 60 days of March 22, 2016.
- (13) Consists of the shares described in Note (4) above. Mr. Federman disclaims beneficial ownership of the shares held by the entities affiliated with U.S. Ventures as described in Note (4) above, except to the extent of his pecuniary interest therein. Also includes 255,897 shares held by Mr. Federman and 55,000 shares that may be acquired pursuant to the exercise of stock options within 60 days of March 22, 2017.
- (14) Consists of: (i) 160,000 shares held by George M. Scalise and Dorothea Scalise TR Family Trust UA 12/28/88, and (ii) 55,000 shares that may be acquired pursuant to the exercise of stock options within 60 days of March 22, 2017.
- (15) Mr. van den Hoek resigned from the board on February 23, 2017. Consists of 18,750 shares of common stock issuable upon the exercise of stock options within 60 days of March 22, 2017.
- (16) Consists of the shares described in Note (1) above. Mr. Traub disclaims beneficial ownership of the shares held by the entities affiliated with Raging Capital as described in Note (1) above.
- (17)

Consists of the shares described in Note (1) above. Mr. Furnas disclaims beneficial ownership of the shares held by the entities affiliated with Raging Capital as described in Note (1) above.

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(18) Consists of: (i) 19,657,076 shares held by entities affiliated with certain of our directors and executive officers, and (ii) 2,869,625 shares that may be acquired pursuant to the exercise of stock options within 60 days of March 22, 2017.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Exchange Act requires our executive officers and directors, and any person or entity who owns more than 10% of a registered class of our common stock or other equity securities, to file with the SEC certain reports of ownership and changes in ownership of our securities. Executive officers, directors and stockholders who hold more than 10% of our outstanding common stock are required by the SEC to furnish us with copies of all required forms filed under Section 16(a). We prepare Section 16(a) forms on behalf of our executive officers and directors based on the information provided by them.

Based solely on review of this information and written representations by our executive officers and directors, we believe that, during 2016, all forms required by Section 16(a) of the Exchange Act were filed on a timely basis, other than a Form 4 for Dr. McWilliams and a Form 4 for Mr. Kramer, which were filed later than required.

The board of directors hopes that stockholders will attend the meeting. Whether or not you plan to attend, you are urged to complete, date, sign and return the enclosed proxy in the accompanying envelope. A prompt response will greatly facilitate arrangements for the meeting, and your cooperation will be appreciated.

By Order of the Board of Directors,

/s/ Bruce M. McWilliams

BRUCE M. MCWILLIAMS

Chairman

April 5, 2017

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED. KEEP THIS PORTION FOR YOUR RECORDS DETACH AND RETURN THIS PORTION ONLY TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS: Signature [PLEASE SIGN WITHIN BOX] Date Signature (Joint Owners) Date To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below. 0 0 0 0 0 0 0 0 0 0000322908_1 R1.0.1.15 For Withhold For All All All Except The Board of Directors recommends you vote FOR the following: 1. Election of Directors Nominees 01 Bruce M. McWilliams 02 George M. Scalise 03 Matthew Furnas INTERMOLECULAR, INC. 3011 N. FIRST STREET SAN JOSE, CA 95134 VOTE BY INTERNET - www.proxyvote.com Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form. ELECTRONIC DELIVERY OF FUTURE 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 - 1-800-690-6903 Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time the day before the cut-off date or meeting date. Have your proxy card in hand when you call and then follow the instructions. VOTE BY MAIL Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717. The Board of Directors recommends you vote FOR the following proposals: For Against Abstain 2. To approve, on a non-binding, advisory basis, the compensation of our named executive officers, as described in our proxy statement relating to our 2017 Annual Meeting of Stockholders. 3. To ratify the appointment of Armanino LLP as our independent registered public accounting firm for the year ending December 31, 2017. NOTE: Such other business as may properly come before the meeting or any adjournment thereof. 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.

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Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting: The Notice & Proxy Statement and Annual Report on Form 10-K are available at www.proxyvote.com INTERMOLECULAR, INC. Annual Meeting of Stockholders May 16, 2017 9:00 AM This proxy is solicited by the Board of Directors The stockholder(s) hereby appoint(s) Chris Kramer and Bill Roeschle in, or either of them, as proxies, each with the power to appoint his substitute, and hereby authorizes them to represent and to vote, as designated on the reverse side of this ballot, all of the shares of Common stock of INTERMOLECULAR, INC. that the stockholder(s) is/are entitled to vote at the Annual Meeting of stockholder(s) to be held at 9:00 AM, PDT on May 16, 2017, at the offices of Latham & Watkins LLP, 140 Scott Drive, Menlo Park, CA 94025, and any adjournment or postponement thereof. This proxy, when properly executed, will be voted in the manner directed herein. If no such direction is made, this proxy will be voted in accordance with the Board of Directors' recommendations. Continued and to be signed on reverse side