

KLA TENCOR CORP  
Form DEF 14A  
September 23, 2010  
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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

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

Filed by the Registrant ☒

Filed by a Party other than the Registrant ☐

Check the appropriate box:

☐ Preliminary Proxy Statement

☐ **Confidential, for Use of the Commission Only** (as permitted by Rule 14a-6(e)(2))

☒ Definitive Proxy Statement

☐ Definitive Additional Materials

☐ Soliciting Material Pursuant to §240.14a-12

**KLA-Tencor Corporation**

(Name of Registrant as Specified In Its Charter)

# Edgar Filing: KLA TENCOR CORP - Form DEF 14A

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

Payment of Filing Fee (Check the appropriate box):

☒ No fee required.

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(1) Amount Previously Paid:

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

(3) Filing Party:

(4) Date Filed:

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**NOTICE OF ANNUAL MEETING OF STOCKHOLDERS**

**November 3, 2010**

To the Stockholders:

**YOUR VOTE IS IMPORTANT**

NOTICE IS HEREBY GIVEN that the Annual Meeting of Stockholders of KLA-Tencor Corporation ( we or the Company ), a Delaware corporation, will be held on Wednesday, November 3, 2010 at 12:00 p.m., local time, in Multipurpose Rooms East and West in Building Three of our Milpitas facility, located at Three Technology Drive, Milpitas, California 95035, for the following purposes:

1. To elect as Class III Directors the four candidates nominated by our Board of Directors to each serve for a three-year term, each until his or her successor is duly elected.
2. To ratify the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the fiscal year ending June 30, 2011.
3. To transact such other business as may properly come before the Annual Meeting or any adjournment thereof.

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

Only stockholders of record at the close of business on September 14, 2010 are entitled to notice of, and to vote at, the Annual Meeting and any adjournment or postponement thereof.

Sincerely,

Richard P. Wallace  
President and Chief Executive Officer  
Milpitas, California

This Notice of Annual Meeting of Stockholders, Proxy Statement and form of proxy are being distributed and made available on or about September 23, 2010.

All stockholders are cordially invited to attend the Annual Meeting in person; however, regardless of whether you expect to attend the Annual Meeting in person, we encourage you to vote as soon as possible. You may vote by proxy over the Internet or by telephone, or, if you received paper copies of the proxy materials by mail, you can also vote by mail by following the instructions on the proxy card or voting instruction card.

Voting over the Internet, by telephone or by written proxy or voting instruction card will ensure your representation at the Annual Meeting regardless of whether you attend in person.

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**KLA-TENCOR CORPORATION**

**2010 ANNUAL MEETING OF STOCKHOLDERS PROXY STATEMENT**

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**ANNUAL MEETING OF STOCKHOLDERS**

**OF**

**KLA-TENCOR CORPORATION**

**To be held on November 3, 2010**

**PROXY STATEMENT**

**QUESTIONS AND ANSWERS REGARDING PROXY MATERIALS**

**1. Why am I receiving these materials?** The Board of Directors (the "Board") of KLA-Tencor Corporation ("KLA-Tencor," the "Company" or "we") is providing these proxy materials to you in connection with KLA-Tencor's Annual Meeting of Stockholders to be held on Wednesday, November 3, 2010 at 12:00 p.m., local time (the "Annual Meeting"). As a stockholder of record, you are invited to attend the Annual Meeting, which will be held in Multipurpose Rooms East and West in Building Three of our Milpitas facility, located at Three Technology Drive, Milpitas, California 95035. The purposes of the Annual Meeting are set forth in the accompanying Notice of Annual Meeting of Stockholders and this Proxy Statement.

These proxy solicitation materials, together with our Annual Report for fiscal year 2010, were first made available on or about September 23, 2010 to all stockholders entitled to vote at the Annual Meeting. KLA-Tencor's principal executive offices are located at One Technology Drive, Milpitas, California 95035, and our telephone number is (408) 875-3000.

**2. How may I obtain KLA-Tencor's Annual Report?** A copy of our Annual Report on Form 10-K for fiscal year 2010 is available free of charge on the Internet from the website of the Securities and Exchange Commission (the "SEC") at <http://www.sec.gov>, as well as on our website at <http://ir.kla-tencor.com>.

**3. Why did I receive a notice in the mail regarding the Internet availability of the proxy materials instead of a paper copy of the proxy materials?** This year, relying on the SEC rule that allows companies to furnish their proxy materials over the Internet, we are again mailing to our stockholders a notice about the Internet availability of the proxy materials instead of a paper copy of the proxy materials. All stockholders will have the ability to access the proxy materials over the Internet and request to receive a paper copy of the proxy materials by mail. Instructions on how to access the proxy materials over the Internet or to request a paper copy may be found in the notice. In addition, the notice contains instructions on how you may request to access proxy materials in printed form by mail or electronically on an ongoing basis.

**4. How can I access the proxy materials over the Internet?** Your notice about the Internet availability of the proxy materials, proxy card or voting instruction card will contain instructions on how to:

View our proxy materials for the Annual Meeting on the Internet; and



Instruct us to send our future proxy materials to you electronically by e-mail.

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Our proxy materials are also available on our website at the following address: <http://www.kla-tencor.com/annualmeeting>.

Your notice of Internet availability of proxy materials, proxy card or voting instruction card will contain instructions on how you may request to access proxy materials electronically on an ongoing basis. Choosing to access your future proxy materials electronically will help us conserve natural resources and reduce the costs of printing and distributing our proxy materials. If you choose to access future proxy materials electronically, you will receive an e-mail with instructions containing a link to the website where those materials are available and a link to the proxy voting website. Your election to access proxy materials by e-mail will remain in effect until you terminate it.

**5. How may I obtain a paper copy of the proxy materials?** Stockholders receiving a notice about the Internet availability of the proxy materials will find instructions in that notice about how to obtain a paper copy of the proxy materials. Stockholders receiving notice of the availability of the proxy materials by e-mail will find instructions in that e-mail about how to obtain a paper copy of the proxy materials. Stockholders who have previously submitted a standing request to receive paper copies of our proxy materials will receive a paper copy of the proxy materials by mail.

**6. What should I do if I receive more than one set of voting materials?** You may request delivery of a single copy of our future proxy statements and annual reports by writing to the address provided in the answer to Question 7 below or calling our Investor Relations department at the telephone number below. Stockholders may also request electronic delivery of future proxy statements by writing to the address below, by calling our Investor Relations department at (408) 875-3600 or via our website at <http://ir.kla-tencor.com>.

**7. I received one copy of these materials. May I get additional copies?** Certain stockholders who share an address are being delivered only one copy of this Proxy Statement. You may receive additional copies of this Proxy Statement without charge by sending a written request to KLA-Tencor Corporation, Attention: Investor Relations, One Technology Drive, Milpitas, California 95035. Requests may also be made by calling our Investor Relations department at (408) 875-3600.

## **QUESTIONS AND ANSWERS REGARDING THE ANNUAL MEETING**

**8. Who may vote at the Annual Meeting?** You may vote at the Annual Meeting if our records showed that you owned shares of KLA-Tencor Common Stock as of the close of business on September 14, 2010 (the Record Date). At the close of business on that date, we had a total of 166,770,498 shares of Common Stock issued and outstanding, which were held of record by approximately 618 stockholders. As of the Record Date, we had no shares of Preferred Stock outstanding. You are entitled to one vote for each share that you own.

The Annual Meeting will be held if a majority of the outstanding Common Stock entitled to vote is represented at the Annual Meeting. If you have returned valid proxy instructions or attend the Annual Meeting in person, your Common Stock will be counted for the purpose of determining whether there is a quorum, even if you wish to abstain from voting on some or all matters at the Annual Meeting.

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**9. What proposals are being voted on at the Annual Meeting?** In addition to such other business as may properly come before the Annual Meeting or any adjournment thereof, the following two proposals will be presented at the Annual Meeting:

- A. Election of four candidates nominated by our Board to each serve for a three-year term; and
- B. Ratification of the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the fiscal year ending June 30, 2011.

## **QUESTIONS AND ANSWERS REGARDING PROXY SOLICITATION AND VOTING**

**10. How can I vote if I own shares directly?** Most stockholders do not own shares registered directly in their name, but rather are beneficial holders of shares held in a stock brokerage account or by a bank or other nominee (that is, shares held in street name). Those stockholders should refer to Question 11 below for instructions regarding how to vote their shares.

If, however, your shares are registered directly in your name with our transfer agent, you are considered, with respect to those shares, the stockholder of record, and these proxy materials are being sent directly to you. You may vote in the following ways:

- A. **By Telephone:** Votes may be cast by telephone prior to 11:59 p.m. EST on November 2, 2010. Stockholders of record who have received a notice of availability of the proxy materials by mail must have the control number that appears on their notice available when voting. Stockholders of record who received notice of the availability of the proxy materials by e-mail must have the control number included in the e-mail available when voting. Stockholders of record who have received a proxy card by mail must have the control number that appears on their proxy card available when voting;
- B. **By Internet:** Votes may be cast through the Internet voting site prior to 11:59 p.m. EST on November 2, 2010. Stockholders who have received a notice of the availability of the proxy materials by mail may submit proxies over the Internet by following the instructions on the notice. Stockholders who have received notice of the availability of the proxy materials by e-mail may submit proxies over the Internet by following the instructions included in the e-mail. Stockholders who have received a paper copy of a proxy card or voting instruction card by mail may submit proxies over the Internet by following the instructions on the proxy card or voting instruction card;
- C. **By Mail:** Votes may also be cast by mail, as long as the proxy card or voting instruction card is delivered to the Company prior to 11:59 p.m. EST on November 2, 2010. Stockholders who have received a paper copy of a proxy card or voting instruction card by mail may submit proxies by completing, signing and dating their proxy card or voting instruction card and mailing it in the accompanying pre-addressed envelope; or

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### D. ***In Person:*** Attend the Annual Meeting and vote your shares in person.

Whichever of these methods you select to transmit your instructions, the proxy holders will vote your shares in accordance with those instructions.

If you vote by mail, telephone or Internet without giving specific voting instructions, your shares will be voted FOR Proposal One (the election of the four nominees listed herein for the Board) and FOR Proposal Two (the ratification of our independent registered public accounting firm). When proxies are properly dated, executed and returned (whether by returned proxy card, telephone or Internet), the shares represented by such proxies will be voted at the Annual Meeting in accordance with the instructions of the stockholder. However, if no specific instructions are given, the shares will be voted in accordance with the recommendations of our Board and as the proxy holders may determine in their discretion with respect to any other matters that properly come before the meeting.

**11. How may I vote if my shares are held in a stock brokerage account, or by a bank or other nominee?** If your shares are held in a stock brokerage account or by a bank or other nominee, you are considered the *beneficial* owner of shares held in street name, and your broker or nominee is considered the *stockholder of record* with respect to those shares. Your broker or nominee should be forwarding these proxy materials to you. As the beneficial owner, you have the right to direct your broker how to vote, and you are also invited to attend the Annual Meeting. However, since you are not the stockholder of record, you may not vote these shares in person at the Annual Meeting. If a broker, bank or other nominee holds your shares, you will receive instructions from them that you must follow in order to have your shares voted.

### **12. Can I change my vote?**

You may change your vote at any time prior to the vote at the Annual Meeting. To change your proxy instructions if you are a stockholder of record, you must:

Advise our General Counsel in writing at our principal executive offices, before the proxy holders vote your shares, that you wish to revoke your proxy instructions; or

Deliver proxy instructions dated after your earlier proxy instructions, in any of the voting methods described in the response to Question 10 above.

If you are the beneficial owner of shares held in street name, you should contact the broker, bank or other nominee that holds your shares for instructions regarding how to change your vote.

**13. Who will bear the cost of this proxy solicitation?** KLA-Tencor is making this proxy solicitation, and we will pay the entire cost of this solicitation, including preparing, assembling, printing, mailing and distributing the notices and these proxy materials and soliciting votes. We have retained the services of D.F. King & Company to aid in the solicitation of proxies from brokers, bank nominees and other institutional owners. We estimate that we will pay D.F. King fees of approximately \$7,500 (plus reimbursement of out-of-pocket expenses) for this solicitation activity, forwarding solicitation material to beneficial and registered stockholders and

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processing the results. Certain of our Directors, officers and regular employees, without additional compensation, may solicit proxies personally or by telephone.

**14. Can my broker vote my shares if I do not instruct him or her how I would like my shares voted?**

Yes, but only on a limited range of proposals. If your shares are held in a stock brokerage account or by a bank or other nominee, you are considered the beneficial owner of shares held in street name, and these proxy materials are being forwarded to you by your broker or nominee (the record holder) along with a voting card. As the beneficial owner, you have the right to direct your record holder how to vote your shares, and your record holder is required to vote your shares in accordance with your instructions. Record holders do not have discretion to vote your shares on the election of directors, in the absence of specific instructions from you (the beneficial owner). Therefore, if you do not give instructions to your record holder, the record holder will only be entitled to vote your shares in its discretion on Proposal Two (Ratification of Independent Registered Public Accounting Firm).

**15. Are abstentions and broker non-votes counted?**

Shares that are voted FOR, AGAINST, WITHHELD or ABSTAIN are treated as being present for purposes of determining the presence of a quorum and are also treated as shares entitled to vote at the Annual Meeting ( Votes Cast ).

Since abstentions will be counted for purposes of determining both (i) the presence or absence of a quorum for the transaction of business and (ii) the total number of Votes Cast with respect to a proposal (other than the election of Directors), abstentions will have the same effect as a vote against the proposal (other than the election of Directors).

Shares that are subject to a broker non-vote are counted for purposes of determining whether a quorum exists but not for purposes of determining whether a proposal has passed.

**16. How does the Board recommend that I vote?**

The Board recommends that stockholders vote as follows:

- A. FOR the election of the four Class III Director candidates nominated by our Board: Edward W. Barnholt, Emiko Higashi, Stephen P. Kaufman and Richard P. Wallace; and
- B. FOR the ratification of the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the fiscal year ending June 30, 2011.

**17. Will any other business be transacted at the Annual Meeting?**

We are not aware of any matters to be presented other than those described in this Proxy Statement. In the unlikely event that any matters not described in this Proxy Statement are properly presented at the Annual Meeting, the proxy holders will use their own judgment to determine how to vote.

**18. What happens if the Annual Meeting is adjourned or postponed?**

If the Annual Meeting is adjourned or postponed, the proxy holders can vote your shares on the new meeting date as well, unless you have properly revoked your proxy instructions.

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**QUESTIONS AND ANSWERS REGARDING STOCKHOLDER PROPOSALS, DIRECTOR NOMINATIONS BY STOCKHOLDERS AND RELATED BYLAW PROVISIONS**

**19. Can I present other business to be transacted from the floor at the Annual Meeting?** A stockholder may only present a matter from the floor of a meeting of stockholders for consideration at that meeting if certain procedures set forth in our bylaws are followed, including delivery of advance notice by such stockholder to us. We have not received any timely notices with respect to the Annual Meeting regarding the presentation by any stockholders of business from the floor of the meeting. Accordingly, we do not expect to acknowledge any business presented from the floor at the Annual Meeting.

**20. What is the deadline to propose actions for consideration at next year's annual meeting of stockholders?** You may submit proposals for consideration at future stockholder meetings. For a stockholder proposal to be considered for inclusion in our proxy statement for the annual meeting next year (which is expected to be held in November 2011), our Corporate Secretary must receive the written proposal at our principal executive offices no later than May 26, 2011. Such proposals also must comply with SEC regulations under Rule 14a-8 regarding the inclusion of stockholder proposals in company-sponsored proxy materials. Proposals should be addressed to:

Corporate Secretary

KLA-Tencor Corporation

One Technology Drive

Milpitas, California 95035

Fax: (408) 875-4144

For a stockholder proposal that is not intended to be included in our proxy statement under Rule 14a-8, the stockholder must provide the information required by our bylaws and give timely notice to our Corporate Secretary in accordance with our bylaws, which, in general, require that the notice be received by our Corporate Secretary:

Not earlier than the close of business on July 6, 2011, and

Not later than the close of business on August 5, 2011.

If the date of the stockholders' meeting is moved more than 30 days before or 60 days after November 3, 2011, then notice of a stockholder proposal that is not intended to be included in our proxy statement under Rule 14a-8 must be received no earlier than the close of business 120 days prior to the meeting and not later than the close of business on the later of the following two dates:

90 days prior to the meeting; and

10 days after public announcement of the meeting date.

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**21. How may I recommend or nominate individuals to serve as directors?** You may propose director candidates for consideration by the Board's Nominating and Governance Committee. Any such recommendations should include the nominee's name and qualifications for Board membership and should be directed to our Corporate Secretary at the address of our principal executive offices set forth in Question 20 above.

In addition, our bylaws permit stockholders to nominate directors for election at an annual stockholders' meeting. To nominate a director, the stockholder

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must deliver the information required by our bylaws and a statement by the nominee acknowledging that he or she will owe a fiduciary obligation to KLA-Tencor and its stockholders. Also, rules recently adopted by the SEC provide certain stockholders with the right to nominate candidates to our Board of Directors in our proxy materials (referred to as "proxy access"), and those rules will be in effect next year for our 2011 annual meeting of stockholders.

### **22. What is the deadline to propose or nominate individuals to serve as directors?**

A stockholder may send a proposed director candidate's name and information to the Board at any time. Generally, such proposed candidates are considered at the first or second Board meeting prior to the annual meeting.

To nominate an individual for election at an annual stockholders' meeting, the stockholder must give timely notice to our Corporate Secretary in accordance with our bylaws, which, for our annual meeting next year, will generally require that the notice be received by our Corporate Secretary between the close of business on July 6, 2011 and the close of business on August 5, 2011, unless the annual meeting is moved by more than 30 days before or 60 days after November 3, 2011, in which case the deadline will be as described in Question 20 above.

As noted above, rules recently adopted by the SEC provide certain stockholders with the right to nominate candidates to our Board of Directors in our proxy materials. Under those rules (which will be in effect next year for our 2011 annual meeting of stockholders), for a director nominee to be considered for inclusion in our proxy statement for the 2011 annual meeting, the nominating stockholder must file a Schedule 14N with the SEC (and provide a copy to us) no earlier than April 26, 2011 and no later than May 26, 2011.

### **23. How may I obtain a copy of KLA-Tencor's bylaws?**

For a free copy of our bylaws, please contact our Investor Relations department at (408) 875-3600. A copy of our bylaws is also available free of charge on the Internet on our website at <http://ir.kla-tencor.com> and from the SEC's website at <http://www.sec.gov>.



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### **PROPOSAL ONE:**

#### **ELECTION OF DIRECTORS**

##### **Background**

We have a classified Board with three classes. At each annual meeting, a class of Directors is elected for a full term of three years to succeed those Directors whose terms expire at the annual meeting. At this Annual Meeting, the terms of the Class III Directors are expiring.

The three incumbent Class I Directors are Robert M. Calderoni, John T. Dickson and Kevin J. Kennedy. The Class I Directors will serve until the annual meeting of stockholders to be held in 2011 or until their respective successors are duly elected and qualified.

The four incumbent Class II Directors are Robert P. Akins, Robert T. Bond, Kiran M. Patel and David C. Wang. The Class II Directors will serve until the annual meeting of stockholders to be held in 2012 or until their respective successors are duly elected and qualified.

The three incumbent Class III Directors are Edward W. Barnholt, Stephen P. Kaufman and Richard P. Wallace. They are up for re-election at the Annual Meeting. Emiko Higashi, who is not an incumbent Director, has also been nominated by the Board for election at the Annual Meeting to serve as a Class III Director.

##### **Nominees**

The term of the three current Class III Directors will expire on the date of the Annual Meeting. The three incumbent Class III Directors and one new Class III Director are nominated for election at the Annual Meeting. The Nominating and Governance Committee, consisting solely of independent Directors as determined under the rules of the NASDAQ Stock Market, recommended the Class III Director nominees as set forth in this Proposal One. Based on that recommendation, the members of the Board resolved to nominate such individuals for election.

The four candidates nominated by the Board for election as Class III Directors by the stockholders are:

Edward W. Barnholt;

Emiko Higashi;

Stephen P. Kaufman; and

Richard P. Wallace.

If elected, the nominees for Class III Directors will serve as Directors until our annual meeting of stockholders in 2013, each until his or her successor is duly elected and qualified. If any nominee declines to serve or becomes unavailable for any reason, or a vacancy occurs before the election, the proxies may be voted for such substitute nominees as the Board may designate. As of the date of this Proxy Statement, the Board is not aware of any nominee who is unable or who will decline to serve as a Director.

##### **Vote Required and Recommendation**

If a quorum is present and voting, the four nominees for Class III Directors receiving the highest number of affirmative votes will be elected as Class III Directors. Votes withheld from any Director and broker non-votes are counted



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for purposes of determining the presence or absence of a quorum but have no other legal effect on the selection of nominees for Directors. In accordance with our corporate governance policies, anyone who is elected as a Director in any uncontested election by a plurality and not a majority of votes cast will promptly tender his or her resignation to the Board, subject to acceptance, after certification of the election results. The Nominating and Governance Committee will make a recommendation to the Board whether to accept or reject the resignation or take some other appropriate action, taking into account any stated reasons why stockholders withheld votes and any other factors that the Nominating and Governance Committee determines in its sole discretion are relevant to such decision. The Board will in its sole discretion act on the recommendation of the Nominating and Governance Committee within 90 days after the date of certification of the election results. The Director who tenders his or her resignation will not participate in the decisions of the Nominating and Governance Committee or the Board regarding his or her resignation.

**THE MEMBERS OF THE BOARD UNANIMOUSLY RECOMMEND A VOTE FOR EACH OF THE CLASS III DIRECTOR NOMINEES, WITH THE DIRECTORS WHO ARE NOMINEES ABSTAINING.**

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### **INFORMATION ABOUT THE BOARD OF DIRECTORS AND ITS COMMITTEES**

#### **The Board of Directors**

Our Board held a total of nine meetings during the fiscal year ended June 30, 2010. All Directors other than Mr. Wallace meet the definition of independence within the meaning of the NASDAQ Stock Market director independence standards.

The Board has three standing committees: the Audit Committee; the Compensation Committee; and the Nominating and Governance Committee. The Board has determined that each of the members of each of the Committees has no material relationship with the Company (including any relationship that, in the opinion of the Board, would interfere with the exercise of independent judgment as a Director) and is independent within the meaning of the NASDAQ Stock Market director independence standards, including, in the case of the Audit Committee, the heightened independence standard required for such Committee members.

Each Committee meets regularly and has a written charter approved by the Board, all of which are available on our website at <http://ir.kla-tencor.com>. The Board and each Committee regularly review the Committee charters. In addition, at each quarterly Board meeting, a member of each Committee reports on any significant matters addressed by the Committee.

During the fiscal year ended June 30, 2010, each of the incumbent Directors attended at least 85% of the aggregate of (a) the total number of meetings of the Board held during the period for which such person served as a Director and (b) the total number of meetings held by all Committees of the Board on which such Director served (during the periods that such Director served).

Although we do not have a formal policy mandating attendance by members of the Board at our annual meetings of stockholders, we do have a formal policy encouraging their attendance at our annual stockholders' meetings. Nine of the ten members of our Board attended our annual stockholders' meeting held on November 4, 2009.

For more information regarding the responsibilities of our Board Committees, please refer to the various charters which can be found on our corporate governance website located at <http://ir.kla-tencor.com>.

#### **Board Leadership Structure**

KLA-Tencor currently separates the positions of Chief Executive Officer and Chairman of the Board. Since October 2006, Mr. Barnholt, one of our independent Directors, has served as our Chairman of the Board. The responsibilities of the Chairman of the Board include: setting the agenda for each Board meeting, in consultation with the Chief Executive Officer; presiding at executive sessions; facilitating and conducting, with the Nominating and Governance Committee, the annual self-assessments by the Board and each standing committee of the Board, including periodic performance reviews of individual directors; and conducting, with the Compensation Committee, a formal evaluation of the Chief Executive Officer and other executive officers in the context of the annual compensation review.

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Separating the positions of Chief Executive Officer and Chairman of the Board allows our Chief Executive Officer to focus on our day-to-day business, while allowing the Chairman of the Board to lead the Board in its fundamental role of providing advice to and independent oversight of management. The Board believes that having an independent Director serve as Chairman of the Board is the appropriate leadership structure for the Company at this time.

However, our Corporate Governance Standards permit the roles of the Chairman of the Board and the Chief Executive Officer to be filled by the same or different individuals. This provides the Board with flexibility to determine whether the two roles should be combined in the future based on KLA-Tencor's needs and the Board's assessment of the Company's leadership from time to time. Our Corporate Governance Standards provide that, in the event that the Chairman of the Board is not an independent Director, the independent members of the Board will designate a lead independent director.

### **Board's Role in Oversight of Risk**

Our Board, as a whole and through its committees, has responsibility for the oversight of risk management. In its oversight role, our Board has the responsibility to satisfy itself that the risk management processes designed and implemented by management are adequate and functioning as designed. The involvement of the Board in working with management to establish our business strategy at least annually is a key part of its oversight of risk management, its assessment of management's appetite for risk and its determination of what constitutes an appropriate level of risk for KLA-Tencor. The Board and its committees regularly receive updates from management (including representatives of our legal and internal audit teams) regarding certain risks that we face, including litigation and various operating risks.

While our Board is ultimately responsible for risk oversight at KLA-Tencor, our Board has delegated to the Audit Committee the primary responsibility for the active oversight of our enterprise risk management activities. Our Audit Committee is not only responsible for overseeing risk management of financial matters, the adequacy of our risk-related internal controls, financial reporting and internal investigations, but its charter also provides that the Committee will discuss at least annually KLA-Tencor's risk assessment, enterprise risk management processes and our major financial exposures, as well as the steps our management has taken to monitor and control those exposures. Our Audit Committee reports its findings and activities to the Board at each quarterly Board meeting.

In addition, our other Board committees each oversee certain aspects of risk management. Our Compensation Committee oversees risks related to our compensation policies and practices, and our Nominating and Governance Committee oversees governance related risks, such as Board independence and conflicts of interest, as well as management and director succession planning. The Committees report their findings and activities to the Board at each quarterly Board meeting.

While the Board is responsible for risk oversight, management is responsible for risk management. KLA-Tencor maintains an effective internal controls

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environment and has processes to identify and manage risk, including an Executive Risk Council comprised of representatives from our legal, human resources, finance, internal audit, compliance and operational teams. This council reports to our Chief Executive Officer and has oversight of the various risk assessment, monitoring and controls processes across the Company.

### **Audit Committee**

From the beginning of fiscal year 2010 through the date of this Proxy Statement, the Audit Committee has consisted of Messrs. Calderoni, Kaufman, Patel and Wang, with Mr. Calderoni serving as the Chairman of the Committee. Effective November 3, 2010 (the date of the Annual Meeting), in connection with a periodic rotation of committee memberships, Mr. Kaufman will no longer serve as a member of the Audit Committee, and Mr. Bond will be appointed as a member of the Audit Committee.

The Board has determined that, of the current members of the Audit Committee, Messrs. Calderoni and Patel are both audit committee financial experts within the meaning of the rules and regulations promulgated by the SEC.

The Audit Committee is responsible for appointing and overseeing the work of our independent registered public accounting firm, approving the services performed by our independent registered public accounting firm, and reviewing and evaluating our accounting principles and system of internal accounting controls. The Audit Committee held seven meetings during the fiscal year ended June 30, 2010.

The Board has determined that each of the members of the Audit Committee: (1) meets the definition of independence within the meaning of NASDAQ's director independence standards, (2) meets the definition of audit committee member independence within the meaning of Rule 10A-3 under the Securities Exchange Act of 1934 and (3) has no material relationship with KLA-Tencor (including any relationship that, in the opinion of the Board, would interfere with the exercise of independent judgment as a Director).

### **Compensation Committee**

From the beginning of fiscal year 2010 through the date of this Proxy Statement, the Compensation Committee has consisted of Messrs. Akins, Barnholt, Bond, Dickson and Kennedy, with Mr. Kennedy serving as the Chairman of the Committee. Effective November 3, 2010 (the date of the Annual Meeting), in connection with a periodic rotation of committee memberships, Mr. Bond will no longer serve as a member of the Compensation Committee, and Mr. Kaufman, subject to his election at the Annual Meeting, will be appointed as a member of the Compensation Committee.

The Compensation Committee reviews and either approves or recommends to the full Board (depending upon the compensation plan and the executive involved) our executive compensation policy and administers our employee equity award plans. The Compensation Committee also reviews and, except with respect to our Chief Executive Officer and Chairman of the Board, has the authority to approve the cash and equity compensation for our executive officers and for members of the Board. See Compensation Discussion and Analysis Compensation Approval Procedures for more information

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concerning the procedures and processes the Compensation Committee follows in setting such compensation and implementing the various cash and equity compensation programs in effect for such individuals, including the retention of an independent compensation consultant to provide relevant market data and advice. The Compensation Committee held eight meetings during the fiscal year ended June 30, 2010.

### ***Risk Considerations in Our Compensation Programs***

Our Compensation Committee and management conducted an extensive review of the design and operation of KLA-Tencor's compensation practices, policies and programs for all employees, including the named executive officers, to assess the risks associated with such practices, policies and programs. Based on this review and assessment, we and our Compensation Committee do not believe our compensation program encourages excessive or inappropriate risk-taking for the following reasons:

Our use of different types of compensation provides a balance of short-term and long-term incentives with fixed and variable components;

Our equity awards (including performance share awards, to the extent earned) typically vest over a four-year period, encouraging participants to look to long-term appreciation in equity values;

The metrics used to determine the amount of a participant's bonus under our incentive bonus plans (and, with respect to executives, the number of shares earnable under their performance share awards) focus on Company-wide metrics such as operating margin percentage, which the Compensation Committee believes encourages the generation of profitable revenue and drives long-term stockholder value;

Our bonus plans impose caps on bonus awards to limit windfalls;

Commission-based payments represent a limited component of our historical overall compensation program;

Our system of internal control over financial reporting, Standards of Business Conduct and whistleblower program, among other things, reduce the likelihood of manipulation of our financial performance to enhance payments under our performance-based compensation plans; and

Our insider trading policy provides that our employees may not enter into hedging transactions involving our Common Stock, in an effort to prevent our employees from

insulating themselves from the effects of our stock price performance.

**Nominating and Governance Committee** At the beginning of fiscal year 2010, the Nominating and Governance Committee consisted of Messrs. Barnholt, Dickson and Kaufman, with Mr. Barnholt serving as the Chairman of the Committee. On August 6, 2009, Mr. Bond was appointed as an additional member of the Nominating and Governance Committee. From August 6, 2009 through the date of this Proxy Statement, the Nominating and Governance Committee has consisted of Messrs. Barnholt, Bond, Dickson and Kaufman, with Mr. Barnholt serving as the Chairman of the Committee.



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The Nominating and Governance Committee is primarily responsible for identifying and evaluating the qualifications of all candidates for election to the Board, as well as reviewing corporate governance policies and procedures. The Nominating and Governance Committee held four meetings during the fiscal year ended June 30, 2010.

The Nominating and Governance Committee assesses the appropriate size and composition of the Board, the effectiveness of its leadership structure, and whether any vacancies on the Board are expected. In the event that vacancies are anticipated, or otherwise arise, the Nominating and Governance Committee considers potential candidates that may come to its attention through current members of the Board, professional search firms, management, stockholders or other persons. In evaluating properly submitted stockholder recommendations, the Nominating and Governance Committee uses the evaluation standards discussed in further detail below and seeks to achieve a balance of knowledge, experience and capability on the Board.

It is the Nominating and Governance Committee's policy to consider candidates for the Board recommended by, among other persons, stockholders who have owned one percent (1%) or more of our outstanding shares for at least one year and who state that they have an intent to continue as a substantial stockholder for the long term. Stockholders wishing to nominate candidates for the Board must notify our General Counsel in writing of their intent to do so and provide us with certain information set forth in Article II, Section 11 of our bylaws and all other information regarding nominees that is required to be provided pursuant to Regulation 14A of the Securities Exchange Act of 1934, or as otherwise requested by the Nominating and Governance Committee. In addition, beginning in 2011, stockholders that satisfy applicable ownership requirements and wish to nominate candidates for the Board for inclusion in our proxy materials must file a Schedule 14N with the SEC (and provide a copy to us) containing the information, and within the timeframe, required by the SEC.

Several years ago, we instituted a governance policy applicable to uncontested Director elections, which policy currently remains in effect. Under this policy, anyone who is elected as a Director in any uncontested election by a plurality and not a majority of votes cast will promptly tender his or her resignation to the Board, subject to acceptance, after certification of the election results. The Nominating and Governance Committee will make a recommendation to the Board whether to accept or reject the resignation or take some other appropriate action, taking into account any stated reasons why stockholders withheld votes and any other factors which the Nominating and Governance Committee determines in its sole discretion are relevant to such decision. The Board will in its sole discretion act on the recommendation of the Nominating and Governance Committee within 90 days after the date of certification of the election results. The Director who tenders his or her resignation will not participate in the decisions of the Nominating and Governance Committee or the Board regarding his or her resignation.

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### ***Director Qualifications and Diversity***

The Board believes that the skill set, backgrounds and qualifications of our Directors, considered as a group, should provide a significant composite mix of diversity in experience, knowledge and abilities that will allow the Board to fulfill its responsibilities. In addition, the Board believes that there are certain attributes that every Director should possess, such as demonstrated business or academic achievements, the highest ethical standards and a strong sense of professionalism. Accordingly, the Board and the Nominating and Governance Committee consider the qualifications of Directors and Director candidates individually and in the broader context of the Board's overall composition and KLA-Tencor's current and future needs.

In considering candidates for Director nomination, including evaluating any recommendations from stockholders as set forth above, the Nominating and Governance Committee only considers candidates who have demonstrated executive experience or significant high level experience in accounting, legal or a technical field or industry applicable to KLA-Tencor. In addition, as set forth in our Corporate Governance Standards, the Nominating and Governance Committee takes into account all factors it considers appropriate when evaluating Director candidates, which may include strength of character, mature judgment, career specialization, diversity and the extent to which the candidate would fill a present need on the Board. With respect to new Board members, it is the standard practice of the Nominating and Governance Committee to engage a third-party recruiting firm to identify a slate of individuals for consideration as Board candidates based on the above-mentioned criteria.

In addition, the Nominating and Governance Committee annually reviews with the Board the appropriate skills and characteristics required of Directors in the context of the current composition of the Board. In seeking a diversity of background, the Nominating and Governance Committee seeks a variety of occupational and personal backgrounds on the Board in order to obtain a range of viewpoints and perspectives. This annual assessment enables the Board to update the skills and experience it seeks in the Board as a whole, and in individual Directors, as KLA-Tencor's needs evolve and change over time.

In evaluating Director candidates, and considering incumbent Directors for renomination to the Board, the Nominating and Governance Committee has considered all of the criteria described above and, for incumbent Directors, past performance on the Board. Among other things, the Nominating and Governance Committee has determined that it is important to have individuals with the following skills and experiences on the Board:

Current or former executives who demonstrate strong leadership qualities and possess significant operating experience that together enable them to contribute practical business advice to the Board and management, strategies regarding change and risk management, and valuable insight into developing, implementing and assessing our operating plan and business strategy;

A deep understanding of the key issues relevant to technology companies, including specific knowledge regarding the

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semiconductor industry, which is vital in understanding and reviewing our business goals and challenges, as well as our product development and acquisition strategies;

Substantial international experience, which is particularly important given our global presence and the international nature of our customer base;

An understanding of finance and related reporting processes. In the case of members of our Audit Committee, we seek individuals with demonstrated financial expertise with which to evaluate our financial statements and capital structure; and

Corporate governance experience obtained from service as Board members and/or executives for other publicly traded companies, which we believe results in a greater sense of accountability for management and the Board and enhanced protection of stockholder interests.

**Table of Contents****INFORMATION ABOUT THE DIRECTORS AND THE NOMINEES**

Our Board and its Nominating and Governance Committee believe that all of the Directors and nominees listed below are highly qualified and have the skills and experience required for service on our Board. The following table sets forth certain information with respect to our Directors and nominees as of the date of this Proxy Statement, including biographies that reflect their significant experiences, qualifications and skills:

	<b>Principal Occupation of Board Members</b>	<b>Age</b>
<b><i>Nominees for Election as Class III Directors</i></b>		
<b>Edward W. Barnholt</b>	<p>Edward W. Barnholt has been a Director of KLA-Tencor since 1995 and was named Chairman of the Board of KLA-Tencor in October 2006. From March 1999 to March 2005, Mr. Barnholt was President and Chief Executive Officer of Agilent Technologies, Inc., and he was Chairman of the Board of Directors of Agilent from November 2002 to March 2005. In March 2005, Mr. Barnholt retired as the Chairman, President and Chief Executive Officer of Agilent. Before being named Agilent's Chief Executive Officer, Mr. Barnholt served as Executive Vice President and General Manager of Hewlett-Packard Company's Measurement Organization from 1998 to 1999. From 1990 to 1998, he served as General Manager of Hewlett-Packard's Test and Measurement Organization. He was elected Senior Vice President of Hewlett-Packard in 1993 and Executive Vice President in 1996. Mr. Barnholt also currently serves on the Boards of Directors of Adobe Systems Incorporated and eBay Inc., as well as on the Board of Trustees of the Packard Foundation.</p> <p>As the former President, Chief Executive Officer and Chairman of Agilent, as well as a former senior executive with Hewlett-Packard, Mr. Barnholt possesses significant leadership experience, including on matters particularly relevant to companies with complex technology and international issues. Mr. Barnholt's 15 years of experience as a Board member of KLA-Tencor provide him with an extensive knowledge of our business and industry, and, as a Board member of two other public companies, Mr. Barnholt also has strong corporate governance expertise.</p>	67
<b>Emiko Higashi</b>	<p>Emiko Higashi, who is not an incumbent Director, has been nominated by the Board for election at the Annual Meeting by the stockholders to become a Class III Director of KLA-Tencor. Ms. Higashi was initially identified by our Chief Executive Officer due to her professional experience, business reputation, financial acumen and overall background. We then engaged a third-party recruiting firm to identify a list of other potential new Directors and to conduct a comprehensive screening process on the candidates, including Ms. Higashi. The Nominating and Governance Committee reviewed the results of that process, conducted interviews, and recommended Ms. Higashi to the full Board as the most appropriate candidate. Following a thorough background review, reference checks and interviews with all of the independent Directors, her nomination was unanimously approved by the Board.</p>	51

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	<b>Principal Occupation of Board Members</b>	<b>Age</b>
<i>Nominees for Election as Class III Directors</i>		
<b>Emiko Higashi</b>	Ms. Higashi is a founder of Tomon Partners, LLC, a mergers and acquisitions (M&A) and strategy consulting firm, and has served as a managing director of Tomon Partners since its inception in 2003. Prior to Tomon Partners, she was a co-founder and Chief Executive Officer of Gilo Ventures, a technology-focused venture capital firm, from 2000 to 2002. Prior to that, Ms. Higashi spent 15 years in investment banking, including roles as a founding member of Wasserstein Parella and the head of that firm's technology M&A business from 1988 until 1994, as well as a managing director in Merrill Lynch's global technology investment banking M&A practice from 1994 until 2000. Prior to her investment banking career, Ms. Higashi spent two years as a consultant at McKinsey & Co. in Tokyo, Japan.	
(Continued)	As a result of her extensive career in technology-focused investment banking and finance, Ms. Higashi brings to the Board significant strategic, business development, M&A and financial experience related to the business and financial issues facing large global technology corporations, as well as a comprehensive understanding of international business matters, particularly in Asia. In addition, as a founder of several consulting and investment advisory firms, Ms. Higashi also possesses significant leadership experience.	
<b>Stephen P. Kaufman</b>	Stephen P. Kaufman has been a Director of KLA-Tencor since November 2002. Mr. Kaufman has been a Senior Lecturer at the Harvard Business School since January 2001. He was a member of the Board of Directors of Arrow Electronics, Inc. from 1984 to May 2003. From 1986 to June 2000, he was Chief Executive Officer of Arrow. From 1985 to June 1999, he was also Arrow's President. From 1994 to June 2002, he was Chairman of the Board of Directors of Arrow. Mr. Kaufman also serves on the Board of Directors of Harris Corporation. He previously served on the Boards of Directors of Thermo Fisher Scientific Inc. (July 2007 to May 2010) and Freescale Semiconductor, Inc. (July 2004 to November 2009; publicly traded until December 2006).	68
	As the former President, Chief Executive Officer and Chairman of Arrow Electronics, Mr. Kaufman has extensive leadership experience, as well as familiarity with operational and strategic issues relating to global technology-focused companies, and he also possesses significant experience with business issues as a result of his former executive roles and his current position as a respected lecturer at Harvard Business School. In addition, Mr. Kaufman's service as a Board member of several other public companies in recent years and as a lecturer on issues of Board governance provides Mr. Kaufman with valuable corporate governance expertise.	

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	<b>Principal Occupation of Board Members</b>	<b>Age</b>
<i>Nominees for Election as Class III Directors</i>		
<b>Richard P. Wallace</b>	<p>Richard (Rick) P. Wallace currently serves as our President and Chief Executive Officer. Mr. Wallace has been a Director and our Chief Executive Officer since January 2006 and has also served as our President since November 2008. He began at KLA Instruments in 1988 as an applications engineer and has held various general management positions throughout his 22 years with us, including positions as President and Chief Operating Officer from July 2005 to December 2005, Executive Vice President of the Customer Group from May 2004 to July 2005, and Executive Vice President of the Wafer Inspection Group from July 2000 to May 2004. He also currently serves as Chairman of the Board of Directors of SEMI and as a member of the Board of Directors of Beckman Coulter, Inc. Earlier in his career, he held positions with Ultratech Stepper and Cypress Semiconductor. He earned his bachelor's degree in electrical engineering from the University of Michigan and his master's degree in engineering management from Santa Clara University, where he also taught strategic marketing and global competitiveness courses after his graduation.</p> <p>As our President and Chief Executive Officer and a KLA-Tencor employee for over two decades, Mr. Wallace brings to the Board extensive leadership and semiconductor industry experience, including a deep knowledge and understanding of our business, operations and employees, the opportunities and risks faced by KLA-Tencor, and management's strategy and plans for accomplishing our goals. As a member of the Boards of Directors of KLA-Tencor, Beckman Coulter and a significant industry organization, he also has a strong understanding of his role as a Director and a broad perspective on key industry issues and corporate governance matters.</p>	50

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	<b>Principal Occupation of Board Members</b>	<b>Age</b>
<i>Class I Directors</i>		
<b>Robert M. Calderoni</b>	<p>Robert M. Calderoni has been a Director of KLA-Tencor since March 2007. He has served as Chief Executive Officer and a Board member of Ariba, Inc. since October 2001 and as Ariba's Chairman of the Board of Directors since July 2003. From 2001 to 2004, Mr. Calderoni also served as Ariba's President and, before that, as Ariba's Executive Vice President and Chief Financial Officer. From 1997 to 2001, he served as Chief Financial Officer at Avery Dennison Corporation. He is also a member of the Board of Directors of Juniper Networks, Inc.</p> <p>As the Chief Executive Officer and Chairman of the Board of Ariba, an international technology-focused company, Mr. Calderoni provides our Board with extensive and relevant leadership and operations experience. In addition, Mr. Calderoni is well-qualified to serve as a Board member and as the Chairman of our Audit Committee as a result of his over 20 years of experience as a finance executive, including his past service as the Chief Financial Officer of two publicly traded technology companies. As a Board member of two other public companies, Mr. Calderoni also has familiarity with a range of corporate governance issues.</p>	50
<b>John T. Dickson</b>	<p>John T. Dickson has been a Director of KLA-Tencor since May 2007. Mr. Dickson currently serves as Chief Operating Officer of Alcatel-Lucent, a position he has held since May 2010. Mr. Dickson is the former President and Chief Executive Officer of Agere Systems, Inc., a position he held from August 2000 until October 2005, and he also served as a Board member of Agere from March 2001 until October 2005. Prior to joining Agere, Mr. Dickson held positions as the Executive Vice President and Chief Executive Officer of Lucent's Microelectronics and Communications Technologies Group; Vice President of AT&amp;T Corporation's integrated circuit business unit; Chairman and Chief Executive Officer of Shographics, Inc.; and President and Chief Executive Officer of Headland Technology Inc. Mr. Dickson is currently a member of the Boards of Directors of National Semiconductor Corporation and Frontier Silicon, Ltd. He also previously served on the Board of Directors of Mettler-Toledo International Inc. from March 2001 to April 2009.</p> <p>As a result of his current executive position at Alcatel-Lucent, as well as his former positions as a senior executive at global technology organizations such as Agere, Lucent and the integrated circuit business unit of AT&amp;T, Mr. Dickson provides the Board with significant leadership, operations and technology experience, including extensive knowledge of the semiconductor industry. Also, from his service as a Board member with other companies, including as a current director of two other publicly traded semiconductor companies, Mr. Dickson offers a broad understanding of the role and responsibilities of the Board and valuable insight on a number of significant industry issues.</p>	64

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	<b>Principal Occupation of Board Members</b>	<b>Age</b>
<i>Class I Directors</i>		
<b>Kevin J. Kennedy</b>	<p>Kevin J. Kennedy has been a Director of KLA-Tencor since May 2007. Mr. Kennedy is President and Chief Executive Officer of Avaya Inc., a leading global provider of business communications applications, systems and services. Prior to joining Avaya in January 2009, Mr. Kennedy was President and Chief Executive Officer of JDS Uniphase Corporation, a position he held since September 2003. From 2001 to 2003, he served as Chief Operating Officer of Openwave Systems, Inc. Previously, Mr. Kennedy spent nearly eight years at Cisco Systems, Inc. and 17 years at Bell Laboratories. In 1987, Mr. Kennedy was a Congressional Fellow to the U.S. House of Representatives Committee on Science, Space and Technology. Mr. Kennedy is also a member of the Board of Directors of JDS Uniphase. He also previously served on the Boards of Directors of Rambus, Inc. (April 2003 to May 2008) and Freescale Semiconductor, Inc. (July 2004 to November 2006).</p> <p>As the current President and Chief Executive Officer of Avaya and a former senior executive at JDS Uniphase and Openwave, Mr. Kennedy possesses a vast amount of leadership and operational experience with companies in high technology industries. Also, as the holder of a Ph.D. degree in engineering from Rutgers University, a former Congressional Fellow to the U.S. House of Representatives Committee on Science, Space and Technology, and the author of more than 30 papers on computational methods, data networking and technology management, Mr. Kennedy offers relevant expertise in a broad range of technology issues. In addition, as a result of his experience on the Boards of Directors of several public companies, Mr. Kennedy offers our Board a deep understanding of corporate governance matters.</p>	54



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	<b>Principal Occupation of Board Members</b>	<b>Age</b>
<i>Class II Directors</i>		
<b>Robert P. Akins</b>	<p>Robert P. Akins has been a Director of KLA-Tencor since May 2008. Mr. Akins is a co-founder of Cymer, Inc. and has served as Cymer's Chairman and Chief Executive Officer since its inception in 1986. Cymer is a leading supplier of excimer light sources for deep ultraviolet photolithography systems used in the semiconductor manufacturing process. Mr. Akins also served as Cymer's President from its inception until May 2000. He is an ex-officio member of the Board of Directors of SEMI (Semiconductor Equipment and Materials International).</p> <p>As a co-founder of Cymer and the Chairman and Chief Executive Officer of that company for nearly 25 years, Mr. Akins offers our Board vast executive leadership, operations, entrepreneurial and semiconductor industry experience. In addition, through his role with SEMI (a prominent industry organization), he also offers our Board a broad perspective on key industry issues and challenges.</p>	59
<b>Robert T. Bond</b>	<p>Robert T. Bond has been a Director of KLA-Tencor since August 2000. From April 1996 to January 1998, Mr. Bond served as Chief Operating Officer of Rational Software Corporation. Prior to that, he held various executive positions at Rational Software. Mr. Bond was employed by Hewlett-Packard Company from 1967 to 1983 and held various management positions during his tenure there. Mr. Bond served as a member of the Board of Directors of Portal Software, Inc. from August 2004 to July 2006.</p> <p>As the former Chief Operating Officer of Rational Software and a member of management at Hewlett-Packard, Mr. Bond has significant operations and corporate management experience dealing with complex issues faced by global technology companies, including managing international operations, mergers and acquisitions, marketing, sales, product development and finance. In addition, as the former Chief Financial Officer of Rational Software, Mr. Bond possesses an extensive understanding of finance matters and corporate capital structure.</p>	67
<b>Kiran M. Patel</b>	<p>Kiran M. Patel has been a Director of KLA-Tencor since May 2008. Mr. Patel serves as Executive Vice President and General Manager, Small Business Group of Intuit Inc., a provider of personal finance and small business software, a position he has held since June 2007. Mr. Patel previously served as Intuit's Senior Vice President and General Manager, Consumer Tax Group and as its Senior Vice President and Chief Financial Officer. Before joining Intuit in September 2005, he was Executive Vice President and Chief Financial Officer of Solectron Corporation from August 2001 to September 2005. He previously worked for Cummins Inc. for 27 years in a variety of finance and business positions, most recently as Chief Financial Officer and Executive Vice President. Mr. Patel also previously served as a member of the Boards of Directors of BEA Systems, Inc. (February 2007 to April 2008), Eaton, Inc. (April 2003 to April 2006) and Westport, Inc. (October 2001 to September 2005).</p>	62

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	<b>Principal Occupation of Board Members</b>	<b>Age</b>
<i>Class II Directors</i>		
<b>Kiran M. Patel</b>	As a current senior officer of Intuit and a former executive at several other companies, Mr. Patel possesses significant international operating and leadership skills, including extensive experience in global sourcing, sales and other business management aspects within manufacturing and technology industries, often involving living and managing businesses overseas. In addition, as a result of his past service as the Chief Financial Officer of several global organizations, including Intuit, Soletron and Cummins, Mr. Patel offers a vast understanding of critical finance matters, which enable him to make significant contributions as a member of our Board and its Audit Committee.	
(Continued)		
<b>David C. Wang</b>	David C. Wang has been a Director of KLA-Tencor since May 2006. Mr. Wang has served as President of Boeing-China and Vice President of International Relations of The Boeing Company since 2002. Prior to joining Boeing, he spent 22 years at General Electric Company ( GE ), where he worked in various capacities, including most recently as Chairman and Chief Executive Officer of GE China. In addition, Mr. Wang served in executive positions with GE in Singapore, Malaysia and Mexico. Prior to joining GE, Mr. Wang held various engineering positions at Emerson Electric Co. He currently resides in Beijing and also serves on the Board of Directors of Terex Corporation, as well as a number of non-profit boards, including the Beijing International MBA Program Advisory Board at Beijing University and Junior Achievement China. Mr. Wang previously served as a member of the Board of Directors of Linktone Ltd. from February 2004 to May 2007.	66
	As the current President of Boeing-China and Vice President, International Relations of The Boeing Company and a former executive in several international locations for GE, Mr. Wang offers significant leadership experience, as well as an extensive knowledge of key business issues in the international locations of some of our most significant customers. With over 30 years of operational experience, primarily in Asia, Mr. Wang offers our Board a deep understanding of growth and competitive issues within changing markets, as well as the challenges involved in building competitive businesses in multi-cultural environments.	

**Table of Contents****PROPOSAL TWO:****RATIFICATION OF APPOINTMENT OF****PRICEWATERHOUSECOOPERS LLP AS OUR****INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM****FOR THE FISCAL YEAR ENDING JUNE 30, 2011****Audit Committee Recommendation**

The Audit Committee has the sole authority to retain or dismiss our independent auditors. The Audit Committee has selected PricewaterhouseCoopers LLP, an independent registered public accounting firm, to audit our consolidated financial statements for our fiscal year ending June 30, 2011. Before making its determination, the Audit Committee carefully considered that firm's qualifications as independent auditors.

The Board, following the Audit Committee's determination, unanimously recommends that the stockholders vote for ratification of such appointment.

Although ratification by stockholders is not required by law, the Board has determined that it is desirable to request approval of this selection by the stockholders. If the stockholders do not ratify the appointment of PricewaterhouseCoopers LLP, the Audit Committee may reconsider its selection.

**Attendance at the Annual Meeting**

Representatives of PricewaterhouseCoopers LLP are expected to be present at the Annual Meeting with the opportunity to make a statement if they desire to do so, and are expected to be available to respond to appropriate questions.

**Fees**

The aggregate fees billed by PricewaterhouseCoopers LLP, KLA-Tencor's independent registered public accounting firm, in fiscal years 2010 and 2009 were as follows:

<b>Services Rendered/Fees</b>	<b>2010</b>	<b>2009</b>
Audit Fees (1)	\$ 1,882,691	\$ 2,386,810
Audit-Related Fees		
Total Audit and Audit-Related Fees	\$ 1,882,691	\$ 2,386,810
Tax Compliance	\$ 510,878	\$ 362,509
Tax Planning and Consulting	\$ 85,875	\$ 295,699
Total Tax Fees (2)	\$ 596,753	\$ 658,208
All Other Fees (3)	\$ 4,260	

- (1) Represents professional services rendered for the audits of annual financial statements set forth in our Annual Reports on Form 10-K for fiscal years 2010 and 2009, the review of quarterly financial statements included in our Quarterly Reports on Form 10-Q for fiscal years 2010 and 2009, and fees for services related to statutory and regulatory filings or engagements.
- (2) Represents tax services for U.S. and foreign tax compliance, planning and consulting.
- (3) Represents fees (if any) for services other than those described above, such as software license fees.

## Edgar Filing: KLA TENCOR CORP - Form DEF 14A

**Pre-Approval Policies and Procedures** The Audit Committee has adopted a policy regarding non-audit services provided by PricewaterhouseCoopers LLP, our independent registered public accounting firm. First, the policy ensures the independence of our auditors by expressly naming all services that the auditors may not perform and reinforcing the principle of independence regardless of the type of service. Second, certain non-audit services such as tax-related services and acquisition

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advisory services are permitted but limited in proportion to the audit fees paid. Third, the Chair of the Audit Committee pre-approves non-audit services not specifically permitted under this policy, and the Audit Committee reviews the annual plan and any subsequent engagements. All non-audit fees were approved by the Audit Committee pursuant to its pre-approval policies and procedures.

On a quarterly basis, management provides written updates to the Audit Committee with regard to audit and non-audit services, the amount of audit and non-audit service fees incurred to date, and the estimated cost to complete such services.

**Independence Assessment by Audit Committee**

Our Audit Committee considered and determined that the provision of the services provided by PricewaterhouseCoopers LLP as set forth herein is compatible with maintaining PricewaterhouseCoopers LLP's independence and approved all non-audit related fees and services.

**Vote Required and Recommendation**

If a quorum is present and voting, the affirmative vote of the majority of Votes Cast is needed to ratify the appointment of PricewaterhouseCoopers LLP as our independent registered public accounting firm, to audit our consolidated financial statements for our fiscal year ending June 30, 2011.

**THE BOARD UNANIMOUSLY RECOMMENDS A VOTE FOR THE RATIFICATION OF THE APPOINTMENT OF PRICEWATERHOUSECOOPERS LLP AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING JUNE 30, 2011.**

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**OUR CORPORATE GOVERNANCE PRACTICES**

At KLA-Tencor, we believe that strong and effective corporate governance procedures and practices are an extremely important part of our corporate culture. In that spirit, we have summarized several of our corporate governance practices below.

<b>Adopting and Maintaining Governance Standards</b>	The Board has adopted, and regularly reviews and updates as necessary, a set of corporate governance standards to establish a framework within which it will conduct its business and to guide management in its running of the Company. The governance standards, portions of which are summarized below, can be found on our website at <a href="http://ir.kla-tencor.com">http://ir.kla-tencor.com</a> .
<b>Monitoring Board Effectiveness</b>	It is important that our Board and its Committees are performing effectively and in the best interests of KLA-Tencor and our stockholders. The Board is responsible for annually assessing its effectiveness and the effectiveness of each of its Committees in fulfilling their respective obligations, and each Committee is responsible for reviewing the Board's assessment of that Committee's effectiveness. In addition, our Nominating and Governance Committee is charged with overseeing an annual review of the Board and its membership.
<b>Conducting Formal Independent Director Sessions</b>	At the conclusion of each regularly scheduled Board meeting, the independent Directors meet in executive session without KLA-Tencor management or any non-independent Directors.
<b>Hiring Outside Advisors</b>	The Board and each of its Committees may retain outside advisors and consultants of their choosing at our expense, without management's consent.
<b>Avoiding Conflicts of Interest</b>	We expect our Directors, executives and employees to conduct themselves with the highest degree of integrity, ethics and honesty. Our credibility and reputation depend upon the good judgment, ethical standards and personal integrity of each Director, executive and employee. In order to provide assurances internally and to our stockholders, we have implemented Standards of Business Conduct which provide clear conflict of interest guidelines to our employees, as well as an explanation of reporting and investigatory procedures.
<b>Providing Transparency</b>	We believe it is important that stockholders understand our governance practices. In order to help ensure transparency of our practices, we have posted information regarding our corporate governance procedures on our website at <a href="http://ir.kla-tencor.com">http://ir.kla-tencor.com</a> .
<b>Communications with the Board</b>	Although we do not have a formal policy regarding communications with the Board, stockholders may communicate with the Board by writing to us at KLA-Tencor Corporation, Attention: Investor Relations, One Technology Drive, Milpitas, California 95035. Stockholders who would like their submission directed to a member of the Board may so specify, and the communication will be forwarded, as appropriate.

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### **Standards of Business Conduct; Whistleblower Hotline and Website**

The Board has adopted Standards of Business Conduct for all of our employees and Directors, including our principal executive and senior financial officers, and we have prepared and made available versions of our Standards of Business Conduct translated into French, Japanese, Korean and Chinese (Simplified and Traditional) in an effort to maximize the accessibility and understandability of these important guidelines to our employees. You can obtain a copy of our Standards of Business Conduct via our website at <http://ir.kla-tencor.com>, or by making a written request to us at KLA-Tencor Corporation, Attention: Investor Relations, One Technology Drive, Milpitas, California 95035. We will disclose any amendments to the Standards of Business Conduct, or waiver of a provision therefrom, on our website at the same address.

In addition, we have established a hotline and website for use by employees, as well as third parties such as vendors and customers, to report actual or suspected wrongdoing and to answer questions about business conduct. The hotline and website are both operated by an independent third party, which provides tools to enable individuals to submit reports in a number of different languages and on an anonymous basis.

### **Ensuring Auditor Independence**

KLA-Tencor has taken a number of steps to ensure the continued independence of our outside auditors. Our independent auditors report directly to the Audit Committee, which also has the ability to pre-approve or reject any non-audit services proposed to be conducted by our outside auditors.

### **Compensation Committee Interlocks and Insider Participation**

The Compensation Committee currently consists of Messrs. Kennedy (Chair), Akins, Barnholt, Bond and Dickson. None of these individuals was an officer or employee of KLA-Tencor at any time during fiscal year 2010 or at any other time. During fiscal year 2010, there was no instance where an executive officer of KLA-Tencor served as a member of the Board or compensation committee of any entity and an executive officer of that entity served on our Board or Compensation Committee.

### **Stockholder Nominations to the Board**

Please see ABOUT THE BOARD OF DIRECTORS AND ITS COMMITTEES Nominating and Governance Committee.

### **Majority Voting Policy**

Please see PROPOSAL ONE: ELECTION OF DIRECTORS Vote Required and Recommendation.

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**DIRECTOR COMPENSATION**

**Employee Directors**

Members of the Board who are employees of the Company do not receive any additional compensation for their services as Directors.

**Outside Directors**

Non-employee members of the Board ( Outside Directors ) receive a combination of equity and cash compensation as approved by the Compensation Committee (or, in the case of the compensation of the Chairman of the Board, as recommended by the Compensation Committee and approved by the Board). Equity compensation to Outside Directors is provided under our 2004 Equity Plan and, to the extent consisting of stock options, may also be provided under our 1998 Outside Director Option Plan, both of which plans were approved by our stockholders.

**Outside Director Restricted Stock Unit Awards**

In accordance with our current practice, each Outside Director was awarded restricted stock units at the November 4, 2009 Annual Meeting of Stockholders covering shares of our Common Stock with an aggregate fair market value of \$100,000 based on the market closing price of our Common Stock on the date of the award (\$31.77 per share). Accordingly, each Outside Director at that time received a restricted stock unit award covering 3,148 shares of Common Stock (other than the Chairman of the Board, who received 1.5 times that number as described below). The restricted stock units awarded to the Outside Directors at the November 4, 2009 Annual Meeting of Stockholders were made with respect to their Board service for fiscal year 2010. The restricted stock units will vest upon completion of one year of Board service measured from the date of grant, and the underlying shares will be issued immediately at that time. This policy will also be in effect with respect to the Annual Meeting.

If a new Outside Director joins the Board after the date of an annual stockholders meeting, his or her first restricted stock unit award will be granted promptly after he or she joins the Board and will be prorated to take into account the period of time from the last annual stockholders meeting to the date the new Outside Director joined the Board.

**Cash Compensation**

For fiscal year 2010, each Outside Director received an annual retainer fee of \$75,000 (other than the Chairman of the Board, who received two times that amount as described below), paid quarterly, and meeting fees of \$2,500 for each Board meeting attended in person, \$1,250 for each Board meeting attended by telephone conference call, \$1,500 for each Committee meeting attended in person, and \$750 for each Committee meeting attended by telephone conference call. Each Committee Chair also received an additional annual retainer. For fiscal year 2010, the additional annual retainer paid to the Chairman of the Audit Committee was \$30,000, the additional annual retainer paid to the Chairman of the Compensation Committee was \$20,000, and the additional annual retainer paid to the Chairman of the Nominating and Governance Committee was \$10,000. Outside Directors also are reimbursed for their reasonable expenses incurred in attending Board and Committee meetings.

The cash compensation component of the Outside Director compensation program will continue to remain in effect unchanged for fiscal year 2011.



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<b>Outside Director Stock Options</b>	Effective November 15, 2007, Outside Directors no longer receive stock options as a component of their compensation. Accordingly, we did not issue any stock options to the Outside Directors during fiscal year 2010.
<b>Non-Executive Chairman</b>	For fiscal year 2010, our policy was that, if the Chairman of the Board was not an executive of the Company (as was the case, with Mr. Barnholt serving as Chairman), the Chairman's annual retainer fee would be two times the regular level for Outside Directors, and the Chairman's equity awards would be 1.5 times the regular level for Outside Directors. This policy will continue to remain in effect for fiscal year 2011.
<b>Deferred Compensation</b>	Each Outside Director is entitled to defer all or a portion of his or her director fees, pursuant to our Executive Deferred Savings Plan, a nonqualified deferred compensation plan. Amounts credited to the plan may be allocated by the participant among 23 investment funds. Of the current Outside Directors, only Messrs. Barnholt, Bond, Patel and Wang participated in this plan during fiscal year 2010 (with only Messrs. Patel and Wang making new contributions during the fiscal year).
<b>Stock Ownership Guidelines</b>	We have adopted a policy, approved by the Board, pursuant to which each Outside Director is expected to own a specified minimum number of shares of our Common Stock. By the later of (a) November 13, 2012 or (b) the fourth anniversary of the date on which an individual becomes an Outside Director, each Outside Director is expected to own at least a number of shares of our Common Stock with a market value of at least three (3) times the standard annual cash retainer paid to the Outside Directors, as that retainer may be changed from time to time. Shares of Common Stock underlying unvested restricted stock units held by the Directors will count toward this ownership requirement. As of the Record Date, each of our current Outside Directors was in compliance with this stock ownership requirement.

**Table of Contents****Director Compensation Table**

The following table sets forth certain information regarding the compensation earned by or awarded to each Outside Director during fiscal year 2010 who served on our Board during the year.

Name	Fees Earned or Paid in Cash (\$) (1)	Stock Awards (\$) (2)	Option Awards (\$) (3)	Change in Pension Value and Nonqualified Deferred Compensation Earnings (\$)	Total (\$)
Robert P. Akins	96,250	100,012			196,262
Edward W. Barnholt	188,500	149,986		109,143(4)	447,629
Robert T. Bond	102,750	100,012		25,543(4)	228,305
Robert M. Calderoni	135,000	100,012			235,012
John T. Dickson	113,750	100,012			213,762
Stephen P. Kaufman	95,250	100,012			195,262
Kevin J. Kennedy	123,500	100,012			223,512
Kiran M. Patel	96,750	100,012		5,099(4)	201,861
David C. Wang	96,000	100,012		7(4)	196,019

- (1) The amounts set forth in this column represent fees earned by each Outside Director during fiscal year 2010, regardless of whether the fees were actually paid during the fiscal year. The aggregate payment amounts include the following categories of payments:

Name	Annual Retainer (\$)	Board Meeting Fees (\$)	Committee Meeting Fees (\$)	Non-Executive Chairman of the Board Additional Retainer (\$)	Committee Chairperson Additional Retainer (\$)	Litigation Committee Compensation (\$)	Total (\$)
Robert P. Akins	75,000	13,750	7,500				96,250
Edward W. Barnholt	75,000	15,000	13,500	75,000	10,000		188,500
Robert T. Bond	75,000	15,000	12,750				102,750
Robert M. Calderoni	75,000	16,250	7,000		30,000	6,750	135,000
John T. Dickson	75,000	16,250	14,250			8,250	113,750
Stephen P. Kaufman	75,000	11,250	9,000				95,250
Kevin J. Kennedy	75,000	15,000	6,750		20,000	6,750	123,500
Kiran M. Patel	75,000	15,000	6,750				96,750
David C. Wang	75,000	15,000	6,000				96,000

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- (2) The amounts shown represent the aggregate grant date fair value of RSUs awarded to each Outside Director during fiscal year 2010, computed in accordance with the provisions of Financial Accounting Standards Board ( FASB ) Accounting Standards Codification Topic 718, referred to in this Proxy Statement as ASC 718 (except that the fair values set forth above have not been reduced by the Company's estimated forfeiture rate). The ASC 718 grant date fair value of each RSU award was calculated based on the fair market value of our Common Stock on the award date. On November 4, 2009, each Outside Director was granted an RSU award covering 3,148 shares of our Common Stock (other than Mr. Barnholt who, as Chairman of the Board, received an RSU award covering 1.5 times that number of shares, or 4,721 shares, as described above under the heading Non-Executive Chairman ). The closing market price of our Common Stock on November 4, 2009 was \$31.77 per share. The following table shows, for each Outside Director, the aggregate number of unvested shares of our Common Stock underlying all outstanding RSUs held by that Outside Director as of June 30, 2010:

<b>Name</b>	<b>Aggregate Number of Unvested Shares of Common Stock Underlying All of Director's RSU Awards as of June 30, 2010 (#)</b>
Robert P. Akins	3,148
Edward W. Barnholt	4,721
Robert T. Bond	3,148
Robert M. Calderoni	3,148
John T. Dickson	3,148
Stephen P. Kaufman	3,148
Kevin J. Kennedy	3,148
Kiran M. Patel	3,148
David C. Wang	3,148

- (3) No stock options were granted to any of the Outside Directors during the 2010 fiscal year. The following table shows, for each Outside Director, the aggregate number of shares subject to all outstanding options held by that Outside Director as of June 30, 2010:

<b>Name</b>	<b>Number of Shares Subject to All Outstanding Options Held as of June 30, 2010 (#)</b>
Robert P. Akins	
Edward W. Barnholt	63,750
Robert T. Bond	61,250
Robert M. Calderoni	3,750
John T. Dickson	2,500
Stephen P. Kaufman	41,250
Kevin J. Kennedy	2,500
Kiran M. Patel	
David C. Wang	6,250

- (4) Represents investment earnings during fiscal year 2010 on the applicable Outside Director's nonqualified deferred compensation account. The earnings correspond to the actual market earnings on a select group of investment funds utilized to track the notional investment return on the director's account balance for fiscal year 2010. We have not made any determination as to which portion of such earnings may be considered above market for purposes of this Director Compensation Table and have elected to report the entire amount of such earnings.

**Table of Contents****INFORMATION ABOUT EXECUTIVE OFFICERS**

Set forth below are the names, ages and positions of the executive officers of KLA-Tencor as of the date of this Proxy Statement.

Name and Position Richard P. Wallace	Principal Occupation of the Executive Officers Please see <b>INFORMATION ABOUT THE DIRECTORS AND THE NOMINEES</b> <i>for Election as Class III Directors.</i>	Age <i>Nominees</i> 50
<b>President &amp; Chief Executive Officer</b>		
<b>Mark P. Dentinger</b>  <b>Executive Vice President &amp; Chief Financial Officer</b>	Mark P. Dentinger joined KLA-Tencor in September 2008 as the Company's Executive Vice President and Chief Financial Officer. Prior to joining KLA-Tencor, from February 2005 to April 2008, Mr. Dentinger most recently served as Executive Vice President and Chief Financial Officer for BEA Systems, Inc., until the company was acquired by Oracle Corporation. Mr. Dentinger was with BEA Systems for a total of nine years, during which he held various senior financial and managerial roles within the company. Prior to joining BEA Systems, Mr. Dentinger served in various financial management positions at Compaq Computer Corporation (now Hewlett-Packard) for six years, culminating in his appointment as Director of Finance, High Performance Systems Manufacturing in 1996. Mr. Dentinger received his bachelor's degree in economics from St. Mary's College of California and his M.B.A. in finance from the University of California at Berkeley.	52
<b>Brian M. Martin</b>  <b>Senior Vice President,</b>  <b>General Counsel &amp; Corporate Secretary</b>	Brian M. Martin joined KLA-Tencor in April 2007 as the Company's Senior Vice President, General Counsel and Corporate Secretary. Prior to joining KLA-Tencor, Mr. Martin served in senior legal positions at Sun Microsystems, Inc. for ten years, most recently as Vice President, Corporate Law Group, responsible for legal requirements associated with Sun's corporate securities, mergers, acquisitions and alliances, corporate governance and Sarbanes-Oxley compliance, and litigation management. Mr. Martin also supported Sun's worldwide sales activities and for several years served as its chief antitrust counsel. Prior to joining Sun, Mr. Martin was in private practice where he had extensive experience in antitrust and intellectual property litigation. Mr. Martin earned his bachelor's degree in economics from the University of Rochester and his J.D. from the State University of New York at Buffalo Law School. Mr. Martin serves as an adjunct professor of law at SUNY Buffalo Law School where he designed and teaches a course on ethics.	48

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Name and Position	Principal Occupation of the Executive Officers	Age
<b>Bobby R. Bell</b>  <b>Executive Vice President, Global Customer Organization</b>	<p>Bobby R. Bell currently serves as KLA-Tencor's Executive Vice President, Global Customer Organization, a title he has held since September 2008. In that role, Mr. Bell oversees the Company's global field operations, corporate sales, corporate marketing and service business. Mr. Bell joined KLA Instruments in 1994 as a Senior Engineer in applications development and has held a number of strategic management positions throughout his 16 years with the Company. He has been a key member of the Company's Customer Group since 2004, including his current position and prior roles leading Asia and then worldwide sales and field operations. Before that, he served as a Vice President in the Company's Wafer Inspection group from 2000 to 2004 and in various marketing roles from 1995 to 2000. Prior to joining the Company, Mr. Bell spent 10 years with AT&amp;T Technology Systems and AT&amp;T Microelectronics (including 18 months as AT&amp;T's assignee at SEMATECH, a prominent semiconductor industry consortium) in the area of yield, defect reduction, process integration, product engineering and management. Mr. Bell earned his bachelor's degree in electrical engineering from the University of Arkansas and his master's degree in electrical engineering from the University of Missouri.</p>	48
<b>Virendra A. Kirloskar</b>  <b>Senior Vice President &amp; Chief Accounting Officer</b>	<p>Virendra A. Kirloskar has served as the Company's Senior Vice President and Chief Accounting Officer since March 2008. Mr. Kirloskar rejoined the Company as Vice President and Corporate Controller in May 2003 and served in that role until March 2008, other than the period from August 2006 to August 2007 during which he held management responsibilities within KLA-Tencor India. Prior to that, from June 2002 to April 2003, Mr. Kirloskar served as Corporate Controller of Atmel Corporation, a designer and manufacturer of semiconductor integrated circuits. Mr. Kirloskar also held various finance positions within KLA-Tencor from 1993 to 1999. Mr. Kirloskar received his bachelor's degree in commerce from the University of Pune, India and his master's degree in business administration from the University of Massachusetts Amherst.</p>	46

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

As of September 14, 2010, based on our review of filings made with the SEC, we are aware of the following entities being beneficial owners of more than 5% of our Common Stock:

<b>Name and Address</b>	<b>Number of Shares Beneficially Owned</b>	<b>Percent of Shares Beneficially Owned (1)</b>
Capital Research Global Investors (2) 333 South Hope Street Los Angeles, CA 90071	16,321,550	9.8%
Capital World Investors (3) 333 South Hope Street Los Angeles, CA 90071	13,946,418	8.4%
The Growth Fund of America, Inc. (4) 333 South Hope Street Los Angeles, CA 90071	12,940,000	7.8%
Janus Capital Management LLC (5) 151 Detroit Street Denver, CO 80206	12,600,944	7.6%
FMR LLC (6) 82 Devonshire Street Boston, MA 02109	11,576,298	6.9%
AXA Financial, Inc. and affiliates (7) 1290 Avenue of the Americas New York, NY 10104	10,140,496	6.1%
BlackRock, Inc. (8) 40 East 52 <sup>nd</sup> Street New York, NY 10022	9,219,928	5.5%

- (1) Based on 166,770,498 outstanding shares of our Common Stock as of September 14, 2010.
- (2) All information regarding Capital Research Global Investors ( CRGI ) is based solely on information disclosed in an Amendment to Schedule 13G filed by CRGI with the SEC on February 9, 2010. CRGI, a division of Capital Research and Management Company, is deemed to beneficially own 16,321,550 shares of our Common Stock as a result of Capital Research and Management Company acting as investment adviser to various investment companies. According to the Schedule 13G/A filing, of the 16,321,550 shares of our Common Stock reported as beneficially owned by CRGI as of December 31, 2009, CRGI had sole voting power with respect to 2,754,000 shares, had shared voting power with respect to 340,650 shares, and had sole dispositive power with respect to all 16,321,550 shares of our Common Stock reported as beneficially owned by CRGI as of that date.
- (3) All information regarding Capital World Investors ( Capital World ) is based solely on information disclosed in an Amendment to Schedule 13G filed by Capital World with the SEC on February 11, 2010. Capital World, a division of Capital Research and Management Company, is deemed to beneficially own 13,946,418 shares of our Common Stock as a result of Capital Research and Management Company acting as investment adviser to various investment companies. According to the Schedule 13G/A filing, of the 13,946,418 shares of our Common Stock reported as beneficially owned by Capital World as of December 31, 2009, Capital World had sole voting power with respect to 6,231,918 shares, did not have shared voting power with respect to any other shares, and had sole dispositive power with respect to all 13,946,418 shares of our Common Stock reported as beneficially owned by Capital World as of that date.
- (4)

## Edgar Filing: KLA TENCOR CORP - Form DEF 14A

All information regarding The Growth Fund of America, Inc. ( The Growth Fund ) is based solely on information disclosed in an Amendment to Schedule 13G filed by The Growth Fund with the SEC on February 12, 2010. The Growth Fund, an investment company

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registered under the Investment Company Act of 1940 that is advised by Capital Research and Management Company, is the beneficial owner of 12,940,000 shares of our Common Stock. According to the Schedule 13G/A filing, of the 12,940,000 shares of our Common Stock reported as beneficially owned by The Growth Fund as of December 31, 2009, The Growth Fund had sole voting power with respect to all 12,940,000 shares but did not have sole or shared dispositive power with respect to any of the shares of our Common Stock reported as beneficially owned by The Growth Fund as of that date.

- (5) All information regarding Janus Capital Management LLC ( Janus Capital ) is based solely on information disclosed in an Amendment to Schedule 13G filed by Janus Capital with the SEC on February 16, 2010. Janus Capital reported its direct ownership of a 91.8% stake in INTECH Investment Management ( INTECH ) and a 77.8% stake in Perkins Investment Management LLC ( Perkins ). Janus Capital, INTECH and Perkins are registered investment advisers furnishing investment advice to various investment companies and to individual and institutional clients, and their beneficial holdings are aggregated for purposes of the shares reported in the table above. According to the Schedule 13G/A filing, Janus Capital reported that, as of December 31, 2009, it had sole voting and dispositive power with respect to 10,277,897 shares of our Common Stock (shares for which Janus Capital may be deemed to be the beneficial owner) and had shared voting and dispositive power with respect to the remaining 2,323,047 shares of our Common Stock (shares for which INTECH may be deemed to be the beneficial owner).
- (6) All information regarding FMR LLC ( FMR ) is based solely on information disclosed in an Amendment to Schedule 13G filed by FMR LLC and Edward C. Johnson 3d, Chairman of FMR, with the SEC on August 10, 2010. According to the Schedule 13G/A, the 11,576,298 shares of our Common Stock reported by FMR are owned, or may be deemed to be owned, by FMR as of December 31, 2009. Fidelity Management & Research Company ( Fidelity ), a wholly owned subsidiary of FMR, is the beneficial owner of 7,232,486 shares as a result of acting as investment adviser to various investment companies. Edward C. Johnson 3d and FMR, through its control of Fidelity and the Fidelity funds ( Funds ), each has sole dispositive power over the 7,232,486 shares owned by the Funds. Neither FMR nor Edward C. Johnson 3d has sole voting power over the shares owned directly by the Funds, which power resides with the Funds Boards of Trustees. Fidelity carries out the voting of the shares under written guidelines established by the Funds Boards of Trustees. Strategic Advisers, Inc., a wholly owned subsidiary of FMR, is the beneficial owner of 536 shares as a result of providing investment advisory services to individuals. Pyramis Global Advisors, LLC ( PGALLC ), an indirect wholly owned subsidiary of FMR and an investment adviser, is the beneficial owner of 259,010 shares as a result of serving as an investment adviser to institutional accounts, non-U.S. mutual funds or investment companies registered under the Investment Company Act of 1940 owning such shares. Edward C. Johnson 3d and FMR, through its control of PGALLC, each has sole dispositive power and sole voting power over the 259,010 shares owned by the institutional accounts or funds advised by PGALLC. Pyramis Global Advisors Trust Company ( PGATC ), an indirect wholly owned subsidiary of FMR and a bank, is the beneficial owner of 96,762 shares as a result of serving as investment manager of institutional accounts owning such shares. Edward C. Johnson 3d and FMR, through its control of PGATC, each has sole dispositive power and sole voting power over the 96,762 shares owned by the institutional accounts managed by PGATC. FIL Limited ( FIL ) provides investment advisory and management services to non-U.S. investment companies and institutional investors. Partnerships controlled predominantly by the family of Edward C. Johnson 3d, Chairman of FMR and FIL, or trusts for their benefit, own approximately 47% of the voting stock of FIL. As such, though FMR states in the Schedule 13G/A that they are of the view that FMR and FIL are not acting as a group under the Securities Exchange Act of 1934 and that the shares held by the other therefore do not need to be aggregated, FMR's beneficial ownership includes 3,987,504 shares beneficially owned through FIL (with respect to which FIL has sole dispositive power over all such shares, sole voting power over 3,916,704 of such shares, and no voting power over 70,800 of such shares).
- (7) All information regarding AXA Financial, Inc. and its affiliates is based solely on information disclosed in a Schedule 13G filed with the SEC on February 12, 2010 by (a) AXA Assurances I.A.R.D. Mutuelle and AXA Assurances Vie Mutuelle (collectively, the Mutuelles AXA ), (ii) AXA, and (iii) AXA Financial, Inc. ( AXA Financial ). Mutuelles AXA control AXA, which owns AXA Financial, which is the parent holding company of AllianceBernstein L.P. ( Alliance ), an investment adviser, and AXA Equitable Life Insurance Company ( AXA Equitable ), an insurance company and an investment adviser. According to the Schedule 13G filing, with respect to the 10,140,496 shares of our Common



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Stock reported as beneficially owned by AXA Financial and its affiliates of December 31, 2009, the voting and dispositive power with respect to such shares was reported as follows:

	<b>Deemed to Have Sole Power to Vote or to Direct the Vote</b>	<b>Deemed to Have Shared Power to Vote or to Direct the Vote</b>	<b>Deemed to Have Sole Power to Dispose or to Direct the Disposition</b>	<b>Deemed to Have Shared Power to Dispose or to Direct the Disposition</b>
The Mutuelles AXA, as a group	0	0	0	0
AXA	0	0	0	0
<b>AXA Entity or Entities:</b>				
AXA Investment Managers Paris (France)	4,500	0	4,500	0
AXA Investment Managers UK Ltd.	39,000	0	39,000	0
AXA Konzern AG (Germany)	600	0	600	0
AXA Rosenberg Investment Management LLC	74,098	0	74,098	0
AXA Financial, Inc.	0	0	0	0
<b>Subsidiaries of AXA Financial:</b>				
AllianceBernstein	7,288,412	0	9,815,868	0
AXA Equitable Life Insurance	126,830	0	134,930	0
	7,533,440	0	10,140,496	0

- (8) All information regarding BlackRock, Inc. ( "BlackRock" ) is based solely on information disclosed in a Schedule 13G filed by BlackRock with the SEC on January 29, 2010. According to the Schedule 13G filing, BlackRock had sole voting power and sole dispositive power with respect to 9,219,928 shares of our Common Stock as of December 31, 2009.

**Table of Contents****Management**

The following table sets forth the beneficial ownership of our Common Stock as of September 14, 2010 by all current Directors, each of the named executive officers set forth in the Summary Compensation Table, and all current Directors and executive officers as a group. Except for shares held in brokerage accounts which may from time to time, together with other securities held in those accounts, serve as collateral for margin loans made from those accounts, none of the shares reported as beneficially owned are currently pledged as security for any outstanding loan or indebtedness. Shares that have not yet been issued under outstanding restricted stock units (and that are not scheduled to vest within 60 days after September 14, 2010) due to applicable performance or service-vesting requirements that have not yet been satisfied are not included in the table below but are indicated in footnote 14 to such table:

<b>Name of Beneficial Owner</b>	<b>Number of Shares Beneficially Owned</b>	<b>Percent of Outstanding Class (1)</b>
Richard P. Wallace (2)(14)	552,305	*
Robert P. Akins (3)	9,623	*
Edward W. Barnholt (4)	88,760	*
Robert T. Bond (5)	55,702	*
Robert M. Calderoni (6)	15,202	*
John T. Dickson (7)	14,606	*
Stephen P. Kaufman (8)	54,702	*
Kevin J. Kennedy (9)	13,456	*
Kiran M. Patel (10)	11,629	*
David C. Wang (11)	18,198	*
Mark P. Dentinger (12)(14)	21,723	*
Brian M. Martin (14)	5,727	*
Virendra A. Kirloskar (13)(14)	49,035	*
All current Directors and executive officers as a group (14 persons) (15)	1,048,747	*

\* Less than 1%.

- (1) Based on 166,770,498 outstanding shares of our Common Stock as of September 14, 2010. In addition, shares of our Common Stock subject to options that are presently exercisable or will become exercisable within 60 days after September 14, 2010 are deemed to be outstanding for the purpose of computing the percentage ownership of a person or entity in this table, but are not treated as outstanding for the purpose of computing the percentage ownership of any other person or entity.
- (2) Includes 406,125 shares subject to options which are presently exercisable or will become exercisable within 60 days after September 14, 2010, and 43,750 shares subject to restricted stock units that will vest and become deliverable within 60 days after September 14, 2010.
- (3) Includes 3,148 shares subject to restricted stock units that will vest and become deliverable within 60 days after September 14, 2010.
- (4) Includes 53,750 shares subject to options which are presently exercisable or will become exercisable within 60 days after September 14, 2010, and 4,721 shares subject to restricted stock units that will vest and become deliverable within 60 days after September 14, 2010.
- (5) Includes 41,250 shares subject to options which are presently exercisable or will become exercisable within 60 days after September 14, 2010, and 3,148 shares subject to restricted stock units that will vest and become deliverable within 60 days after September 14, 2010.
- (6) Includes 3,750 shares subject to options which are presently exercisable or will become exercisable within 60 days after September 14, 2010, and 3,148 shares subject to restricted stock units that will vest and become deliverable within 60 days after September 14, 2010.
- (7) Includes 2,500 shares subject to options which are presently exercisable or will become exercisable within 60 days after September 14, 2010, and 3,148 shares subject to restricted stock units that will vest and become deliverable within 60 days after September 14, 2010.

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- (8) Includes 41,250 shares subject to options which are presently exercisable or will become exercisable within 60 days after September 14, 2010, and 3,148 shares subject to restricted stock units that will vest and become deliverable within 60 days after September 14, 2010.
- (9) Includes 2,500 shares subject to options which are presently exercisable or will become exercisable within 60 days after September 14, 2010, and 3,148 shares subject to restricted stock units that will vest and become deliverable within 60 days after September 14, 2010.
- (10) Includes 3,148 shares subject to restricted stock units that will vest and become deliverable within 60 days after September 14, 2010.
- (11) Includes 6,250 shares subject to options which are presently exercisable or will become exercisable within 60 days after September 14, 2010, and 3,148 shares subject to restricted stock units that will vest and become deliverable within 60 days after September 14, 2010.
- (12) Includes 20,000 shares subject to restricted stock units that will vest and become deliverable within 60 days after September 14, 2010.
- (13) Includes 29,511 shares subject to options which are presently exercisable or will become exercisable within 60 days after September 14, 2010, and 7,050 shares subject to restricted stock units that will vest and become deliverable within 60 days after September 14, 2010.
- (14) As of September 14, 2010, the named executive officers listed below each held unvested restricted stock units (which units were not scheduled to vest within 60 days after September 14, 2010 and therefore are not included in the beneficial ownership table above). Each restricted stock unit will entitle that officer to one share of our Common Stock upon satisfaction of the applicable service vesting (and, where applicable, performance vesting) requirement in effect for that unit.

Name	Number of Shares Subject to Unvested
	Restricted Stock Units
Richard P. Wallace	370,745
Mark P. Dentinger	139,300
Brian M. Martin	84,761
Virendra A. Kirloskar	43,100

- (15) Includes options to purchase an aggregate of 680,778 shares of our Common Stock held by the current officers and Directors which are presently exercisable or will become exercisable within 60 days of September 14, 2010, and 110,080 shares subject to restricted stock units that will vest and become deliverable within 60 days after September 14, 2010.

**Section 16(a) Beneficial Ownership  
Reporting Compliance**

Section 16(a) of the Securities Exchange Act of 1934 requires our executive officers, Board members, and persons who own more than ten percent of a registered class of our equity securities to file reports of ownership and changes in ownership with the SEC, and such persons are also required by SEC regulations to furnish us with copies of all Section 16(a) forms they file. Based solely on our review of the copies of such forms received by us, we believe that during fiscal year 2010 all of our executive officers, Board members and greater than ten percent stockholders complied with all applicable filing requirements.

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**EXECUTIVE COMPENSATION AND OTHER MATTERS**

**COMPENSATION DISCUSSION AND ANALYSIS**

**Executive Overview**

Though the semiconductor industry has long been acknowledged as being a very cyclical industry, full cycles have recently been measured in terms of four to six years. In the past two years alone, however, we have witnessed dramatic swings in demand in our industry, with equipment demand in fiscal year 2010 recovering significantly off the multi-cycle low recorded in fiscal year 2009.

As we disclosed last year in our Proxy Statement, our fiscal year 2009 executive compensation program was significantly impacted by the decline in our industry during that year. The program was predominantly weighted toward performance-based compensation, both with respect to cash and equity compensation, tied to financial performance objectives that turned out to be unachievable due to global and industry economic conditions during that year, resulting in no bonus payouts or performance shares being earned by the executive team. These results did not reflect the fact that our employees, led by the executive team, performed very well during fiscal year 2009, generating positive operating cash flow, continuing with key product development efforts and rigorously managing our cost structure.

Similarly, our executive compensation program for fiscal year 2010 was affected by the unexpected and dramatic shifts in our industry during the year. In July and August 2009, when our fiscal year 2010 executive compensation program was being established, we were coming off a nine-month period (October 2008 to June 2009) of some of the lowest new order totals in the Company's history. Consistent with our compensation philosophy, our fiscal year 2010 executive compensation structure featured significant performance-based components, both with respect to cash and equity compensation, tied to financial performance objectives that were considered very challenging to achieve at the time they were established. At that time, neither the Compensation Committee nor the Board of Directors anticipated that the industry would recover as quickly and dramatically during fiscal year 2010 as it eventually did.

KLA-Tencor performed extremely well during fiscal year 2010. To some extent, that success was a function of the overall industry's rapid recovery. However, to a greater extent, the Company's financial and operational success was a direct result of our ability to continue developing industry-leading products that meet our customers' ever-increasing demands and our success in maintaining the cost structure and discipline that we instituted during the fiscal year 2009 downturn, even as the industry recovered. This is evidenced by a number of Company-specific accomplishments, including:

In the fourth quarter of fiscal year 2010, we recorded the highest quarterly level of new orders in our history, with the Company's year-over-year growth in bookings considerably exceeding the overall growth in wafer fabrication equipment spending by the semiconductor industry;

We posted strong gross and operating margin percentages for the year, including a Company-record quarterly gross margin percentage (excluding acquisition related charges) during the fourth quarter of fiscal year 2010;

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We sustained our market leadership in our core semiconductor markets and extended our penetration of new growth areas, such as back-end packaging inspection, high brightness LED, photovoltaic and hard disk drives;

We introduced ten new products to the market, in addition to upgrades to existing products, many of which were developed during the industry downturn;

We generated nearly \$448 million in GAAP operating cash flow during fiscal year 2010, demonstrating the strong cash generating power of our business; and

During these volatile markets, we sustained high levels of customer satisfaction, as indicated by the strong acceptance of our new products and our record level of new orders in the fourth quarter of fiscal year 2010.

These results serve as confirmation that, while we and our competitors certainly benefited from the dramatic recovery experienced in the semiconductor industry during fiscal year 2010, our success was largely attributable to our executive team's ability to ensure that, by focusing our product development efforts on our most strategic projects and intelligently managing our business and expenses throughout the downturn, we remained well-positioned to take advantage of the recent recovery.

However, the Company's stock performance over the same period has not reflected the Company's strong absolute and relative performance, and as a result the relative shareholder return of KLA-Tencor's common stock (stock price appreciation and dividends paid) has underperformed other companies in our industry notwithstanding our superior relative operating performance. In an effort to improve the correlation between our total shareholder return and our actual performance, we recently announced a significant increase in our quarterly dividend level (from \$0.15 to \$0.25 per share), which took effect in August 2010.

The payouts under our fiscal year 2010 compensation program are the result of the outstanding performance of the Company and our management team over the past several years. The named executive officers' performance share awards granted during fiscal year 2010 were fully earned as a result of the Company's operating margin performance, which generated an operating margin percentage equal to more than five (5) times the Company's target percentage that was established at the start of the fiscal year. In addition, due to that operating margin percentage and the Company's overall performance, our fiscal year 2010 cash bonus plan, which was structured to only pay out 40% of the executives' target bonus amounts at the Company's target level of operating margin (because the fiscal year 2010 outlook for the semiconductor industry at the start of the year was so bleak that the Company's target operating margin would not support full bonus payouts), paid bonuses of 297% of target bonus amounts, just short of the maximum amount payable under the plan.

The past two years serve as an example of how cyclical and, at times, unpredictable the semiconductor industry can be. However, the Compensation

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Committee and the independent members of our Board (the Independent Board Members, which refers to all of the members of our Board other than our Chief Executive Officer and is the group that makes all determinations regarding our Chief Executive Officer's compensation) believe that, notwithstanding that industry volatility, the Company's executive compensation program is structured in a way that is designed to ensure that, over the long term, the compensation for our executive officers is market competitive and will fairly reflect the Company's performance over that time.

Our executive compensation structure for fiscal year 2011, as described in more detail below, has again been structured to closely align with the Compensation Committee's overall philosophy regarding the balance between performance-based compensation and retention, while also attempting to appropriately reflect the anticipated economic environment over the course of the upcoming fiscal year.

With regard to cash compensation, we have not implemented salary increases for fiscal year 2011 for any of the named executive officers, as existing salary levels (which were increased in fiscal year 2010 for the first time in two years) were determined to be competitive. The fiscal year 2011 cash bonus plan has returned to a more typical plan construct, structured so that the Company's achievement of target operating goals will result in a payment of 100% of the executives' target bonus amounts. Similar to the fiscal year 2010 bonus plan, bonus payments under the fiscal year 2011 bonus plan will be determined by a combination of the Company's operating margin percentage and its performance against a balanced scorecard of key corporate goals.

With regard to long-term compensation, the equity awards for fiscal year 2011 to the named executive officers consist of an annual equity grant of restricted stock units. Half of that annual grant is a performance share award with goals that may be fully achieved over a period of two years (but, unlike the prior year's grants, are not earnable after one year), and the other half of the annual grant is in the form of restricted stock units with only service-based vesting requirements. Consistent with past practices, all equity awards granted to the named executive officers (including the performance shares, to the extent earned) vest over a period of four years. No supplemental restricted stock units have been awarded for fiscal year 2011.

The fiscal year 2011 compensation structure has been designed to be consistent with our compensation philosophy and design principles and to address the specific circumstances that we currently face and anticipate in the coming fiscal year. Similarly, in future years, the Compensation Committee (and, with respect to the compensation of our Chief Executive Officer, the Independent Board Members) will evaluate the environment and will implement the appropriate structural elements and features for the compensation programs warranted at such time.

### **Compensation Philosophy and Design Principles**

The philosophy of the Compensation Committee on executive compensation is that it should be designed to:

Attract, retain and reward executives who contribute to the overall success of the Company by offering compensation packages that are

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competitive with those offered by other employers (both in our primary industries and other associated industries) with which we compete for talent; and

Achieve a balance, appropriate for the circumstances in the particular year, between performance-based compensation (which rewards accomplishment of the Company's business objectives and aligns the interests of our executives with those of our stockholders) and compensation that supports our long-term employee retention efforts.

The Compensation Committee's philosophy is reflected in the following executive compensation design principles:

With regard to cash compensation, in addition to a competitive base salary, a substantial portion of the executives' potential compensation should be tied to a cash bonus plan that rewards corporate and individual achievement of challenging performance goals; and

With regard to long-term incentives, the program should typically provide two forms of compensation (with the allocation between the two forms potentially varying each year based on the particular year's circumstances): (i) service-based awards with vesting conditioned only upon continued service, which serve as an important element of our efforts to retain key employees, and (ii) performance-based awards, comprising a meaningful portion of the executives' overall long-term incentive opportunities, which provide additional long-term compensation as a reward for achievement of corporate and individual goals and which, if earned, also include service-vesting requirements.

<b>Compensation Element</b>	<b>Objective</b>
Base salary	Provide a competitive fixed component of cash compensation.
Annual bonus plan	Offer a variable cash compensation opportunity earned only upon the achievement of challenging corporate performance goals, with adjustments based on individual contribution, and providing incremental opportunities at higher performance.
Long-term incentives	Align long-term management and stockholder interests and strengthen retention with four-year vesting provisions. Service-based awards offer certainty and long-term retention. Performance-based awards provide additional opportunity only upon achievement of corporate performance goals.
Benefit plans	Provide basic employee benefits, though not a significant component of our executive compensation program.

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**Compensation Committee Decision Making Process Overview and Market Data**      The Compensation Committee utilizes a holistic approach to the determination of executive compensation packages. Over the course of several meetings (in closed sessions as well as with our Chief Executive Officer and Senior Vice President of Human Resources) and with the assistance of Semler Brossy Consulting Group, LLC, the Compensation Committee's independent compensation consultant (the Independent Consultant), the Compensation Committee engaged in extensive deliberation in developing the fiscal year 2010 and 2011 executive compensation programs to set compensation packages and target performance levels appropriate for each particular year. The Compensation Committee, which has full authority for determining the compensation of our executive officers (other than the Chief Executive Officer, for whom the Committee makes compensation recommendations to the Independent Board Members for approval), applies its philosophy and design principles in determining appropriate executive compensation packages that are aimed at enhancing the Company's financial performance and long-term success.

The Compensation Committee takes into account a number of data sources and factors, including a broad range of market data (as more fully described in the following paragraphs) and the cyclical nature of the industries in which we operate. In addition, the Compensation Committee conducts an individual analysis for each executive officer, which incorporates a review of internal performance reviews and individualized reports for each officer that state the dollar value of the officer's base salary, annual and long-term compensation, vested and unvested equity awards (and future vesting schedule) and benefits. The Committee also considers the executive officers' compensation relative to one another in determining executive compensation, in an effort to ensure internal alignment and equity.

Our ability to continue to attract and retain outstanding contributors, including our core executive team, is essential to our continuing success. Therefore, the Compensation Committee reviews a number of different data sources (including peer group and broader market data) to ensure that we are offering compensation packages that are competitive with those offered by other employers (both in our primary industries and in other associated industries) seeking to attract the same talented individuals. For fiscal year 2010, the Compensation Committee used, in addition to the data described below in this section, a single list of peer group companies, representing companies of comparable size and industry. Our fiscal year 2010 peer group was comprised of Applied Materials, Inc., ASML Holdings, Lam Research Corporation, Novellus Systems, Inc., Teradyne, Inc. and Varian Semiconductor Equipment, Inc., and this same list of peer group companies has been employed in establishing our fiscal year 2011 compensation program as well.

The Compensation Committee reviews the compensation programs and practices of its peer group companies to obtain compensation data and identify compensation trends and practices. Data regarding these peer group companies is primarily obtained through searches of publicly available information, such as the proxy filings of the relevant companies. The market data consists primarily of base salary and total cash compensation rates, as well as incentive bonus and stock programs of other companies considered by the Compensation Committee to be peers in our industry. In addition, we



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subscribe to the Radford Executive Survey (with a focus on high technology companies with revenue between \$1 billion to \$3 billion, as well as certain other selected companies within our relevant industries) and the Computer and High Performance Systems (CHiPS) Executive Survey to obtain additional data concerning target cash compensation levels.

Among the various types of market data considered by the Compensation Committee in its deliberations, the Compensation Committee reviews percentile data to understand the spectrum of compensation packages offered by other similarly situated companies. Though the Compensation Committee refers to such percentile data in its analysis, as well as allocations between annual and long-term compensation, the Compensation Committee does not employ specific equations for determining compensation amounts based on such data, as the appropriate percentile and allocation targets will vary, among participants and over time, for each officer based upon individual factors such as performance, experience and market demands for the officer's skill set. Rather, the Compensation Committee's emphasis is on establishing compensation packages for the executive officers that, in the Committee's judgment, are structured to achieve the goals described under Compensation Philosophy and Design Principles above. The Compensation Committee references the data points that represent the median to 75th percentile, with an emphasis on the lower end of that range when reviewing base salary data, but structuring the executive officers' packages so that total compensation can be at or above the higher end of that range in years of strong Company performance. The Compensation Committee will continue to evaluate these percentile ranges as a reference point and may use a different reference point in future periods based on Company performance and other market factors.

### **Named Executive Officers**

The executive officers listed in the Summary Compensation Table that follows this description of our compensation programs are Richard P. Wallace (our principal executive officer); Mark P. Dentinger (our principal financial officer); Brian M. Martin (our Senior Vice President, General Counsel and Corporate Secretary); and Virendra A. Kirloskar (our Senior Vice President and Chief Accounting Officer). No other individuals served as executive officers of the Company (as determined for purposes of Section 16 of the Securities Exchange Act of 1934, as amended) during fiscal year 2010. These individuals listed in the Summary Compensation Table are referred to in this section as the named executive officers.

### **Elements of Executive Officer Compensation**

The primary elements of our compensation packages are base salary, an annual bonus plan (payments under which are included as Non-Equity Incentive Plan Compensation in the Summary Compensation Table) and long-term incentives (which have historically been in the form of equity awards).

#### **Base Salary:**

The Compensation Committee engages in annual reviews of the base salaries of the executive officers as part of the overall review and determination of our executive compensation program for the relevant fiscal year. With respect to base salary, the Compensation Committee's objective is to offer a level of fixed cash compensation, determined with reference to the median of the

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applicable market data and the other data sources and factors described under Compensation Committee Decision Making Process Overview and Market Data above, that will enable us to attract and retain top talent.

In fiscal year 2010, the Compensation Committee (and the Independent Board Members, with respect to our Chief Executive Officer) implemented salary increases for the executive officers, which increases had been initially approved during fiscal year 2009 but, at the recommendation of management, had not been given effect due to the challenging market conditions that arose shortly after that initial approval.

The salary raises that were approved in fiscal year 2009 (but not implemented until fiscal year 2010) had been intended to address two significant developments within the Company. First, the fiscal year 2009 compensation program had been structured to be more competitive with the market by increasing fixed compensation as a percentage of each executive's total cash compensation opportunity. The salary raises approved in fiscal year 2009, paired with the simultaneous lowering of bonus opportunities (compared to historic payouts, at each level of Company performance relative to applicable target performance), were intended to accomplish this result. Second, the fiscal year 2009 approved salary increases for certain executives were intended to reflect their increased roles and responsibilities as a result of organizational changes at that time. Of our executive officers, the increase in role and responsibility most directly affected Mr. Wallace, who assumed the role of President and, with it, a number of additional organizational responsibilities. Accordingly, the Independent Board Members approved a fiscal year 2009 salary increase for Mr. Wallace of 14.3%, which exceeded the percentage increase approved for any of the other named executive officers. The conditions that had initially prompted the raises (the reduced bonus plan structure and expanded roles and responsibilities) remained in effect in early fiscal year 2010, and, accordingly, the deferred salary increases were implemented at that time.

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In August 2010, in reviewing and determining the overall executive compensation packages for fiscal year 2011, the Compensation Committee (and, with respect to our Chief Executive Officer, the Independent Board Members) determined that the existing base salaries of the named executive officers were competitive with the marketplace for equivalent positions at other companies. Accordingly, no base salary increases were approved for any of the named executive officers for fiscal year 2011. The following table presents the base salaries of our named executive officers for fiscal years 2010 and 2011:

Name and Principal Position	Annual Base Salary Rate as of June 30, 2009 (\$)	Annual Base Salary Rate as of June 30, 2010 (\$)	Year-Over-Year Percentage Increase Represented by the Fiscal Year 2010 Base Salary	Approved Annual Base Salary Rate for Fiscal Year 2011 (\$)	Year-Over-Year Percentage Increase Represented by the Fiscal Year 2011 Base Salary
Richard P. Wallace	700,000	800,000	14.3%	800,000	0%
President & Chief Executive Officer					
Mark P. Dentinger	400,000	400,000	0%	400,000	0%
Executive Vice President & Chief Financial Officer					
Brian M. Martin	325,000	340,000	4.6%	340,000	0%
Senior Vice President, General Counsel & Corporate Secretary					
Virendra A. Kirloskar	270,000	280,800	4.0%	280,800	0%
Senior Vice President and Chief Accounting Officer					

**Annual Bonus Plan:*****i. Fiscal Year 2010 Performance Bonus Plan:***

Our Performance Bonus Plan (the "Bonus Plan"), an incentive bonus plan administered in conformity with Section 162(m) of the Internal Revenue Code, provides the named executive officers with an opportunity to earn performance-based cash compensation based on the Company's achievement of key financial and strategic Company goals as well as individual performance.

In August 2009, the Compensation Committee and, with respect to our Chief Executive Officer, the Independent Board Members established each officer's target bonus payout (stated as a percentage of the officer's base salary) as well as the Company performance targets and bonus potentials (including threshold, target and maximum payout levels) in effect for fiscal year 2010 under the Bonus Plan. In establishing the officers' target awards for fiscal year 2010, the Compensation Committee (and, with respect to deliberations regarding our Chief Executive Officer, the Independent Board Members) considered a wide range of market data (described under "Compensation Committee Decision Making Process Overview and Market Data" above), as well as the allocation of total compensation (both between base salary and variable bonus compensation, and between cash and non-cash compensation), competitive factors and the structure of our fiscal year 2010 Bonus Plan. The

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officers' target bonus percentages are established at levels that generate total target cash compensation opportunities that the Compensation Committee and, as applicable, the Independent Board Members determine are competitive with the market for comparable positions at other companies.

Under the fiscal year 2010 Bonus Plan, the Company was required to achieve a threshold level of operating margin<sup>1</sup> in order for the plan to be funded.<sup>2</sup> Upon achievement of that threshold level of operating margin, a participant's actual bonus amount would then be determined based upon the Company's operating margin percentage and the assessment by the Compensation Committee and the Independent Board Members of the Company's performance as measured against a defined balanced scorecard. Though the balanced scorecard has been used within the Company for many years as a tool for assessing the Company's performance across a broad range of key areas, fiscal year 2010 represented the first time that the scorecard was formally incorporated into our executive compensation program. The balanced scorecard takes into account our strategic objectives of growth, customer focus, operational excellence and talent (each of which is addressed in more detail below), and applies scores for the Company's performance against a variety of specific goals within each of those variables. The scorecard is tracked throughout the year and is reviewed every quarter, then formally presented to the Compensation Committee and the Independent Board Members following the conclusion of the fiscal year for assessment as to the Company's success in achieving the pre-established annual goals. For fiscal year 2010, the pre-established quantitative goals and objectives were set at levels that, based on a number of factors including the Company's prior year performance and the then-prevailing macro-economic conditions, the Compensation Committee, the Independent Board Members and the Company believed would be very challenging to achieve at the time the plan was adopted. While many of the metrics are quantitative in nature, some are qualitative and therefore introduce an enhanced degree of discretion and subjective judgment into the bonus determination process. We believe that the use of the expanded measures of financial and strategic success, as represented by the balanced scorecard framework, serves to closely align the interests of our executive officers with those of our stockholders.

Specifically, the fiscal year 2010 Bonus Plan was structured as follows:

No payouts would be made under the plan unless the Company achieved at least breakeven operating margin. Given the Company's operating margin percentage for fiscal year 2009 (1%) and the outlook for the semiconductor capital equipment industry at the start of fiscal year 2010, this was considered an outcome that would require significant effort to achieve;

<sup>1</sup> For purposes of our fiscal year 2009, 2010 and 2011 cash bonus and equity incentive plans, operating margin is calculated as the Company's total revenues less total costs and operating expenses, including stock-based compensation charges but excluding expenses related to acquisitions, deal-related amortization and other one-time charges.

<sup>2</sup> The satisfaction of this pre-determined threshold level of operating margin would trigger full funding of the Bonus Plan, and of each participant's maximum potential bonus opportunity, for purposes of Section 162(m) of the Internal Revenue Code.

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For Company achievement of operating margin percentage between breakeven and the Company's fiscal year 2010 target operating margin percentage of four percent (4%), the executive officers would be eligible for an award of up to 40% of his or her bonus payout percentage, with the award amount determined by the Compensation Committee or the Independent Board Members (as applicable) in their discretion based upon their assessment of the Company's performance as measured against the balanced scorecard. As a result, the maximum bonus payable under the fiscal year 2010 Bonus Plan for the Company's achievement of target operating margin percentage was 40% of a participant's target bonus amount (as opposed to 100%, which would be a more typical structure under normal market conditions);

Payouts in excess of 40% of the executive officers' target bonus amounts could be earned based upon incremental improvements in the Company's operating margin percentage (above the 4% target). This structure was intended to ensure that payment of bonuses in excess of 40% of a participant's target amount was conditioned on the Company having generated incremental earnings sufficient to fund those bonuses, which was a significant concern given the poor outlook for fiscal year 2010 at that time; and

The plan would pay out at the maximum level of 300% of the executive officers' target bonus amounts if the Company's operating margin equaled or exceeded 21% and the Compensation Committee or the Independent Board Members (as applicable) concluded that the Company had fully achieved its fiscal year 2010 goals based upon an assessment of the balanced scorecard.

In addition, the Compensation Committee had the discretion to adjust the actual bonus amount otherwise payable to an executive based on their assessment of the executive's performance for fiscal year 2010. With respect to our Chief Executive Officer, the Independent Board Members had similar discretion to adjust his actual bonus amount, based on the Company's achievement of pre-determined performance objectives.

The fiscal year 2010 performance goals, both with regard to operating margin percentage and the balanced scorecard objectives, were set at levels that would require very strong operational performance and were considered difficult to achieve at the time they were established, given anticipated market conditions. However, over the course of fiscal year 2010, the semiconductor industry experienced a dramatic and unexpectedly accelerated recovery. That rapid recovery, combined with outstanding management that enabled us to continue developing industry-leading products to meet our customers' ever-increasing demands and maintain the cost structure and discipline that we had instituted during the fiscal year 2009 downturn, resulted in outstanding operating results for the Company in fiscal year 2010.

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Following the completion of fiscal year 2010, the Compensation Committee and the Independent Board Members reviewed the Company's performance against the primary strategic objectives set forth in the fiscal year 2010 balanced scorecard, which were assessed as follows:

**Growth**

The Company aimed to achieve a year-over-year growth rate at least five (5) percentage points higher than the growth rate of the overall semiconductor capital equipment industry, and that goal was satisfied by the Company's year-over-year growth in bookings, which exceeded 120% and was considerably (i.e., appreciably more than five (5) percentage points) higher than orders growth in the overall industry. The Company's revenue growth rate, however, was not at least five (5) percentage points higher than the overall industry's revenue growth rate, though that was largely because the strong bookings growth in fiscal year 2010 occurred late in the fiscal year, and revenue from a significant portion of those bookings will not be realized until the subsequent fiscal year;

The Company's product adoption objectives were satisfied by broad-based demand for the Company's newest products and strong levels of foundry adoption of the Company's offerings at sub-45nm (nanometer) technology nodes; and

The Company's goal of growth outside of its core semiconductor markets was achieved, as evidenced by a year-over-year increase of nearly 85% in bookings for the Company's Growth and Emerging Markets division (the division that houses most of the Company's non-core products, including those acquired in the Company's recent acquisitions).

**Customer Focus**

Through strong bookings across multiple markets (the best indication that the Company is successfully differentiating its products versus competitors and that customers are satisfied with the Company's offerings), the primary goal under customer focus was accomplished, as the Company not only maintained, but enhanced, its market leadership position in core markets during fiscal year 2010; and

The Company's collaboration objective was achieved based on the ongoing successful product development efforts with several key memory and foundry customers, evidencing alignment with customer product roadmaps and advanced technology development relative to our competitors.

**Operational Excellence**

Through strict cost discipline and efficient performance, the Company's operating model yielded significantly lower cost levels, improving profitability such that the Company achieved a Company-record quarterly gross margin percentage (excluding acquisition related charges) during the fourth quarter of fiscal year

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2010, notwithstanding the fact that revenue during the quarter was 24% lower than the Company's all-time highest quarterly revenue;

The Company introduced ten new products during fiscal year 2010, consistent with the Company's product development plan for the year; and

Program execution goals were achieved, as the Company implemented the planned increased production levels in our Israel and Singapore manufacturing facilities, while also successfully responding to the unanticipated and dramatic increase in product demand that we experienced during fiscal year 2010.

**Talent**

Retention efforts were effective, with the actual level of voluntary employee turnover (4%) being better than the forecasted rate of 5%, and turnover among top talent of only 3%, only slightly exceeding the expected level of 2.5%;

Early career hiring objectives were achieved, with early career hires (including new college graduates) representing 64% of the Company's global new hires during the year (in excess of the 50% target); and

The completion of the Company's first ever global employee engagement survey, providing valuable information to support the Company's ongoing talent retention efforts.

As a result of the Company's financial success (generating an operating margin percentage for fiscal year 2010 equal to 20.9%) and strategic success (a determination by the Compensation Committee and the Independent Board Members that, based on the factors above, the Company had fully achieved its strategic goals in the fiscal year 2010 balanced scorecard), the payouts under the fiscal year 2010 Bonus Plan were equal to 297% of the participants' target bonus amounts, just short of the maximum amount payable under the plan.

The Compensation Committee and Independent Board Members established the individual multiplier for each of the named executive officers at 1.0 (that is, there was no reduction or increase of the bonus amount payable to any named executive officer based on individual performance), as the performance reviews of each of the named executive officers indicated that they had all performed well in their respective areas of responsibility.

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The following table sets forth, for each named executive officer, the officer's target bonus (as a percentage of base salary and in dollars, based on actual salary paid during the year), the bonus percentage that would have been paid to the officer if the Company had generated target operating margin (assuming full satisfaction of the balanced scorecard goals), and the actual bonus amount paid to the officer:

<b>Name and Principal Position</b>	<b>Officer's Target Bonus Award Under Bonus Plan (as a Percentage of Base Salary Paid During FY10) (1)</b>	<b>Officer's Target Bonus Award Under Bonus Plan (\$)</b>	<b>Officer's Bonus Payout if the Company Had Generated Target Operating Margin (\$ (2)</b>	<b>Actual Bonus Payout Under 2010 Bonus Plan (\$)</b>
Richard P. Wallace	135%	1,054,038	421,615	3,130,494
President & Chief Executive Officer				
Mark P. Dentinger	75%	300,000	120,000	891,000
Executive Vice President & Chief Financial Officer				
Brian M. Martin	70%	235,981	94,392	700,863
Senior Vice President, General Counsel & Corporate Secretary				
Virendra A. Kirloskar	65%	181,170	72,468	538,075
Senior Vice President and Chief Accounting Officer				

- (1) The amounts in this column represent the applicable officer's fiscal year 2010 full target bonus (stated as a percentage of the officer's base salary). Under the fiscal year 2010 Bonus Plan, this percentage, when multiplied by the payout percentage (determined by the Company's actual performance relative to pre-determined target strategic and financial results) provided for under the Bonus Plan, would generate the officer's actual bonus payment amount.
- (2) As described above, under the construct of the fiscal year 2010 Bonus Plan, the Company's achievement of its target operating margin percentage for the year (assuming full achievement of the balanced scorecard strategic goals) would have resulted in a payout of only 40% of the executive officers' target bonus amounts. This column reflects those amounts (that is, the applicable officer's fiscal year 2010 target bonus award multiplied by 40%).

**ii. Fiscal Year 2011 Performance Bonus Plan:**

In August 2010, the Compensation Committee and, with respect to our Chief Executive Officer, the Independent Board Members established the executive officers' target bonus payout (stated as a percentage of the executive officer's base salary) and the Company performance targets and bonus potentials (at threshold, target and maximum payout levels) in effect for fiscal year 2011 under the Bonus Plan. As with prior years, the initial threshold performance target, which is necessary to fund the fiscal year 2011 Bonus Plan, is tied to the Company's achievement of a pre-determined level of operating margin. If that threshold level of operating margin is achieved, the fiscal year 2011 Bonus Plan maintains a similar structure to the one employed for fiscal year 2010 for determining the actual bonus amount, if any, that will be payable to the participants under the plan.



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Under the fiscal year 2011 Bonus Plan, a participant's bonus amount will again be determined by a combination of the Company's operating margin percentage and its performance against the balanced scorecard goals established for the year. In fiscal year 2011, however, unlike in the prior year, these two components (operating margin percentage and the numeric score based on achievement of the Company's balanced scorecard goals) have been integrated into a two-axis matrix that will determine the participants' bonus payout percentage, so that these two comprehensive indicators of Company performance will be co-dependent at all levels of performance.

Because the anticipated market conditions for fiscal year 2011 are currently expected to be more consistent with typical years in our industry (as compared to the extremely volatile market conditions experienced over the prior two years), the fiscal year 2011 Bonus Plan provides for payment of 100% of the participants' target bonuses upon the Company's achievement of target operating results. This differs from the atypical structures employed in the past two years, when anticipated adverse market conditions led the Compensation Committee and the Independent Board Members to structure the fiscal year 2009 and 2010 Bonus Plans to only pay out 70% and 40%, respectively, of participants' target bonus amounts for Company performance at the applicable fiscal year's target.

Another feature of the fiscal year 2011 Bonus Plan is the flattening of the slope of the bonus payout curve. The appropriate threshold amount (that is, the minimum amount of operating margin that must be achieved before bonuses will become payable under the year's bonus plan) and the slope of the payout curve are determined each year based upon the expected operating performance for the year. In any event, the threshold amount will be set at a level that is considered realistic as of the date it is established. In years where the Company's operating results are projected to generate low levels of operating income, as was the case at the start of fiscal year 2010, the threshold will typically be set at the point where the Company will actually be generating sufficient income to pay bonus amounts for the year (which level may not be far below the target performance level for the year), and the slope of the payout curve will in that case be relatively steep, as each increment of improved performance represents a significant percentage increase in results. However, in years where more typical operating results are expected, the threshold may be set considerably below the Company's target performance level for the year, and the slope of the payout curve will typically be flatter, representing the belief that strong performance should be fairly compensated without incentivizing employees to take inappropriate or excessive risks to achieve unrealistic results.

As in prior years, the Compensation Committee will have the discretion to adjust the actual bonus amount otherwise payable to the executive officers based on their assessment of the officer's performance for fiscal year 2011, compared against the individual performance objectives established for the officer early in the year. With respect to our Chief Executive Officer, the Independent Board Members will have similar discretion to adjust his actual bonus amount, based on the Company's achievement of pre-determined performance objectives.

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The following named executive officers will participate in our fiscal year 2011 Bonus Plan, with bonus potentials at the following payout levels (assuming, in each case, that the executive officer's base salary remains unchanged for the duration of fiscal year 2011):

Name and Principal Position	Award Level Under Fiscal Year 2011 Bonus Plan			
	Minimum (\$)	Minimum Bonus Payout if Initial Threshold Achieved (\$ (1))	Anticipated Bonus Payout if Company Performs at Target Performance Levels (\$ (2))	Maximum (\$)
Richard P. Wallace President & Chief Executive Officer	0	64,800	1,080,000	3,240,000
Mark P. Dentinger Executive Vice President & Chief Financial Officer	0	18,000	300,000	900,000
Brian M. Martin Senior Vice President, General Counsel & Corporate Secretary	0	14,280	238,000	714,000
Virendra A. Kirloskar Senior Vice President & Chief Accounting Officer	0	10,951	182,520	547,560

- (1) The amounts in this column are calculated as the minimum amounts that will be payable under the fiscal year 2011 Bonus Plan to the applicable individual assuming satisfaction of the initial Company performance threshold required to fund the Bonus Plan. Assumes (a) the Company's operating margin percentage for fiscal year 2011 is equal to precisely the threshold required to fund the plan; (b) the Compensation Committee (or the Independent Board Members, as applicable) awards the lowest possible score for the Company's performance against the fiscal year 2011 balanced scorecard goals; and (c) the Compensation Committee (or the Independent Board Members, as applicable) does not apply any downward adjustment based on individual performance criteria (the plan allows them the discretion to apply an individual multiplier of as low as 0.8 to the officer's bonus payout as determined under the plan's payout matrix).
- (2) The amounts in this column are calculated as the bonus amounts that will be payable under the fiscal year 2011 Bonus Plan to the applicable officer assuming (a) the Company's achievement of its target level of operating margin percentage and (b) the Compensation Committee (or the Independent Board Members, as applicable) determines that the Company fully achieves its fiscal year 2011 balanced scorecard goals. Under the structure of the fiscal year 2011 Bonus Plan, a participant will receive 100% of his or her target bonus amount if the Company performs at its target performance levels, so the participant's target bonus amount is the amount that is presented in this column.

The actual bonus award (if any) will depend upon the actual level at which the performance targets for fiscal year 2011 are attained. No executive officer will receive a bonus award under the fiscal year 2011 Bonus Plan in excess of three (3) times his target bonus amount, and no executive officer will receive any bonus award under such plan if the threshold level of Company performance (tied to operating margin) is not attained.

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**Long-Term Incentives:**

The purpose of the long-term incentive component of our executive compensation program is to align long-term management and stockholder interests and strengthen retention through service-based and performance-based awards with four-year vesting provisions. The Compensation Committee believes that these long-term objectives serve as an effective means of building long-term stockholder value. The long-term incentives offered by the Company have historically been in the form of equity awards.

Since the beginning of fiscal year 2007, the long-term incentive awards to our executive officers have been comprised entirely of performance shares and restricted stock units (that is, no stock options have been granted to the officers). The mix between performance shares and restricted stock units may vary from year to year, as appropriate depending on the facts and circumstances in existence for the applicable year. These factors include the executive officers' unvested equity positions, the vesting schedules of existing equity awards, the existence of unique strategic or financial goals for the particular performance period, and organizational or industry changes that could put at risk our efforts to attract and retain top talent.

The Compensation Committee believes that restricted stock units and performance shares provide greater retention value than do stock options, due to the more certain value provided by such awards. Furthermore, the Compensation Committee believes that compensation plans that incorporate comprehensive measures of Company performance are an appropriate way to provide incentives to executive officers and reward success. Therefore, the Compensation Committee believes that equity awards in the form of performance shares and restricted stock units are highly motivating, provide a major incentive for employees to build stockholder value and significantly strengthen our retention efforts.

***i. Annual Equity Grants for Fiscal Year 2010:***

The annual equity component of our executive compensation program refers to the executive officer equity grants that represent the target equity value that the Compensation Committee aims to deliver to each executive officer as part of his annual compensation. The size of each annual grant is established with reference to the officer's role and responsibilities within the Company, as well as market data from the Radford Executive Survey and the Independent Consultant regarding the dollar value of annual grants made to similarly situated executives. In establishing the number of shares subject to the annual grants, the Compensation Committee typically attempts to position the opportunity to fall between the median and 75<sup>th</sup> percentile for annual equity compensation, though the Compensation Committee will continue to evaluate that particular percentile range as a reference point and may use a different reference point in future periods based on Company performance and other market factors. This annual equity component is distinguished from any supplemental equity awards that may be granted for a particular year based on the specific circumstances applicable to that year.

The Compensation Committee's design objective with respect to the annual equity component is that it should be structured so as to accomplish both goals

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of the equity program reward achievement of key performance objectives and enhance our ability to retain our key employees.

Each officer's fiscal year 2010 annual award was divided into two equally sized grants: one of which was a performance share award, and the other of which was a restricted stock unit award with vesting tied solely to continued service with us. The shares covered by the performance share award were earnable over the course of one to three fiscal years, based on the Company's operating margin percentage over those periods. The performance goals that the Compensation Committee and Independent Board Members set for the fiscal year 2010 performance share awards were set at levels that would require very strong operational performance and were considered difficult to achieve at the time, given anticipated market conditions. Shares subject to the performance share awards were able to be fully earned in the first year following grant if the Company were to achieve an operating margin percentage at or above the target level established for fiscal year 2010. To the extent the performance shares were not earned following that first year, the officers would have had additional opportunities to earn those shares in the two subsequent years if the Company were to achieve pre-established levels of weighted average operating margin percentage (which increased over time).

As a result of the unexpectedly rapid industry recovery and the Company's outstanding operational performance and financial results during fiscal year 2010, the Company's operating margin percentage for the year significantly exceeded the pre-established target of four percent (4%), which was the performance level required to fully earn the performance shares in the first year of the three-year performance period. Therefore, the fiscal year 2010 performance share awards have been fully earned.

All of the executive officers' fiscal year 2010 annual equity awards (the restricted stock unit awards and the earned performance share awards) are subject to a four-year service-based vesting period. Fifty percent (50%) of the shares subject to these awards will vest two years from the date of the award, and the remaining fifty percent (50%) will vest four years from the date of the award, in each case subject to the individual's continued employment with us on the applicable vesting date.

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The following table sets forth the minimum and target/maximum shares achievable by each named executive officer, as well as the actual number of shares awarded to the officer, with respect to such officer's annual equity award for fiscal year 2010:

<b>Name and Principal Position</b>	<b>Type of Grant</b>	<b>Minimum Shares</b>	<b>Target Shares/Maximum Shares Achievable</b>	<b>Actual Shares Awarded</b>
Richard P. Wallace President & Chief Executive Officer	Annual Grant (Performance)	0	57,500	57,500
	Annual Grant (Service-Based)	57,500	57,500	57,500
Mark P. Dentinger Executive Vice President & Chief Financial Officer	Annual Grant (Performance)	0	20,000	20,000
	Annual Grant (Service-Based)	20,000	20,000	20,000
Brian M. Martin Senior Vice President, General Counsel & Corporate Secretary	Annual Grant (Performance)	0	11,050	11,050
	Annual Grant (Service-Based)	11,050	11,050	11,050
Virendra A. Kirloskar Senior Vice President & Chief Accounting Officer	Annual Grant (Performance)	0	5,900	5,900
	Annual Grant (Service-Based)	5,900	5,900	5,900

***ii. Supplemental Equity Grants for Fiscal Year 2010:***

In addition to the annual equity awards granted to the named executive officers for fiscal year 2010, the Compensation Committee and the Independent Board Members also awarded supplemental equity grants to each of our named executive officers, as well as other senior members of management throughout the Company.

On a regular basis, the Compensation Committee (and, with respect to our Chief Executive Officer, the Independent Board Members) reviews the retentive power of the unvested equity grants held by each executive. These equity holdings are intended to provide a certain amount of potential future value at all times as an incentive for continued service and strong performance. The Compensation Committee and Independent Board Members determined, as part of their evaluation in early fiscal year 2010, that it was appropriate to grant supplemental service-based equity awards as a result of that evaluation, primarily based on equity award levels in prior years, the elimination of the executives' fiscal year 2009 annual equity awards (which were structured as entirely performance-based awards, none of which were earned due to the unexpected downturn during fiscal year 2009) and market reviews of equity positions of other companies' similarly situated executives (taking into consideration increases in roles and responsibilities of Company executives during fiscal year 2009). The number of shares subject to each fiscal year 2010 supplemental award was determined based on the market value of the executives' unvested equity holdings as compared to the market data for other companies' executives, the market price of the Company's Common Stock at the time of grant and issues of internal equity among the executive officers.

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Each of the executive officers' supplemental grants will vest based solely on the officer's continued service with us, with fifty percent (50%) of the shares vesting two years from the date of the award, and the remaining fifty percent (50%) vesting four years from the date of the award, in each case subject to the executive's continued employment with us on the applicable vesting date.

The following table sets forth the number of shares subject to each named executive officer's supplemental equity award for fiscal year 2010:

<b>Name and Principal Position</b>	<b>Type of Grant</b>	<b>Shares</b>
Richard P. Wallace President & Chief Executive Officer	Supplemental Grant (Service-Based)	74,000
Mark P. Dentinger Executive Vice President & Chief Financial Officer	Supplemental Grant (Service-Based)	43,000
Brian M. Martin Senior Vice President, General Counsel & Corporate Secretary	Supplemental Grant (Service-Based)	19,400
Virendra A. Kirloskar Senior Vice President & Chief Accounting Officer	Supplemental Grant (Service-Based)	10,400

***iii. Annual Equity Grants for Fiscal Year 2011:***

In August 2010, the Compensation Committee and, with respect to grants to our Chief Executive Officer, the Independent Board Members approved fiscal year 2011 annual equity awards for our executive officers, including the minimum, target and maximum potential opportunities under such awards. The blend of equity granted with respect to fiscal year 2011 (which includes both performance shares and service-based awards) is designed to strike an appropriate balance between the two objectives of the equity program—rewarding strong performance and strengthening retention.

Supplemental awards have not been included as a component of our executive compensation program in fiscal year 2011, and we do not currently anticipate that supplemental equity awards will be a regular part of our executive compensation program going forward.

The aggregate number of shares subject to each executive officer's annual equity award is intended to represent a long-term incentive component of the officer's overall compensation package that is competitive with the market. As in prior years, the total size of each officer's fiscal year 2011 annual award was established based upon individual performance and market data regarding the dollar value of annual grants to other companies executives, targeting the grants between the median and 75<sup>th</sup> percentile of annual equity compensation and applying the average closing price of our Common Stock over a recent period of time. Each officer's fiscal year 2011 annual award has been divided into two equally sized grants: one of which is a performance share award, and the other of which is a restricted stock unit award with vesting tied solely to continued service with us. The Compensation Committee will evaluate the allocation between performance-based and service-based awards, as well as

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the continued usefulness of the particular percentile range as a reference point, and may use different allocations, percentile reference points or other features in future periods based on Company performance and other market factors.

The shares covered by the fiscal year 2011 performance share awards are not earnable following year one but instead are earnable based solely on the Company's two-year weighted average operating margin percentage over fiscal years 2011 and 2012. This marks a change from the fiscal year 2010 performance shares, which were capable of being earned (and were fully earned) after the first year of a multi-year performance period. The Compensation Committee is continuously evaluating different ways to structure long-term incentives in a manner that will properly account for the cyclical nature of our primary industries. Under the current circumstances, the Compensation Committee and Independent Board Members have determined that it is desirable to use a longer term metric and performance period with respect to the Company's fiscal year 2011 performance share awards.

Each of the executive officers' annual equity grants (the service-based restricted stock units and, to the extent earned, the performance share awards) require continued service with us in order to vest, with fifty percent (50%) of the shares vesting two years from the date of the award, and the remaining fifty percent (50%) vesting four years from the date of the award, in each case subject to the executive's continued employment with us on the applicable vesting date.

The size and vesting terms of the equity awards to the executive officers are determined by the Compensation Committee (or, with respect to our Chief Executive Officer, the Independent Board Members) after reviewing external market data to ensure that our compensation packages are competitive, while also taking into account retention issues and the portion of each officer's equity position that remains unvested. The minimum and target/maximum numbers of shares potentially issuable to each of the named executive officers under the annual awards made for fiscal year 2011, as approved by the Compensation Committee and the Independent Board Members in August 2010, are as follows:

<b>Name and Principal Position</b>	<b>Type of Grant</b>	<b>Minimum Shares</b>	<b>Target Shares/ Maximum Shares Achievable</b>
Richard P. Wallace President & Chief Executive Officer	Annual Grant (Performance)	0	52,800
	Annual Grant (Service-Based)	52,800	52,800
Mark P. Dentinger Executive Vice President & Chief Financial Officer	Annual Grant (Performance)	0	18,150
	Annual Grant (Service-Based)	18,150	18,150
Brian M. Martin Senior Vice President, General Counsel & Corporate Secretary	Annual Grant (Performance)	0	9,900
	Annual Grant (Service-Based)	9,900	9,900
Virendra A. Kirloskar Senior Vice President & Chief Accounting Officer	Annual Grant (Performance)	0	4,950
	Annual Grant (Service-Based)	4,950	4,950

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**Compensation Approval Procedures** Pursuant to the charter of the Compensation Committee, the Committee has the authority to approve the compensation packages for our executive officers, other than our Chief Executive Officer, without submitting them to the Board of Directors. However, with respect to the Chief Executive Officer's compensation, the Compensation Committee must make recommendations to the Independent Board Members, who possess the authority to approve the Chief Executive Officer's compensation.

In structuring the fiscal year 2010 compensation packages for all of the named executive officers (other than our Chief Executive Officer), the Compensation Committee received comprehensive industry compensation data and analysis from the Independent Consultant and initial recommendations regarding such packages from our Chief Executive Officer and our Senior Vice President of Human Resources based upon internal performance reviews and the external compensation data described under the section entitled "Compensation Committee Decision Making Process Overview and Market Data" above. With regard to our Bonus Plan and performance-based equity program, the proposed financial metrics and payout percentages were developed by our Chief Executive Officer, Chief Financial Officer and Senior Vice President of Human Resources, with the assistance of the Independent Consultant. The Compensation Committee reviewed the data provided by the Independent Consultant and the Company's recommendations and engaged in detailed discussions over the course of multiple meetings, in closed sessions as well as with the Chief Executive Officer, to determine the final compensation packages for the executives for fiscal year 2010. Following these discussions, the Chief Executive Officer presented final recommendations regarding the fiscal year 2010 compensation packages for the named executive officers that reflected these discussions, which recommendations were adopted by the Compensation Committee and the Independent Board Members in August 2009.

In the case of our Chief Executive Officer's compensation, the Compensation Committee developed a proposed compensation package for fiscal year 2010 using the process described above (except that Mr. Wallace was not involved in the process) and recommended it to the Independent Board Members. The Independent Board Members then discussed and, in August 2009, approved the Compensation Committee's recommendation with respect to the fiscal year 2010 compensation for our Chief Executive Officer, who was not present and did not participate in the discussion.

In each case, when establishing each element of compensation and the overall packages for the officers, the Compensation Committee and the Independent Board Members exercised their discretion and judgment based upon the data provided, and no specific formula was applied to determine the weight of each data point.

The executive officers' fiscal year 2011 compensation levels, including base salary, performance targets, target bonus amounts and equity awards, were determined in August 2010. The Compensation Committee grants equity awards for new hires and promotions on a quarterly basis and usually makes equity award grants to the executive officers one time per year, typically in August. All equity awards to our employees, including the named executive officers, and to our directors have been granted and reflected in our consolidated financial statements, based upon the applicable accounting guidance.



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### **Advisor to the Compensation Committee**

The Compensation Committee retains an independent compensation consultant to provide the Committee with independent, objective analysis and advice on executive compensation matters. The Compensation Committee's Independent Consultant, Semler Brossy Consulting Group, LLC, reports directly to the Chair of the Compensation Committee and performs no other work for the Company.

The Independent Consultant generally attends all meetings of the Compensation Committee in which evaluations of the effectiveness of overall executive compensation programs are conducted or in which compensation for executive officers is analyzed or approved. During fiscal year 2010, the Independent Consultant's duties included providing the Compensation Committee with relevant market and industry data and analysis, reviewing all materials and participating in the meetings in which the Compensation Committee made decisions regarding changes to executive compensation for fiscal year 2010. In fulfilling these duties, the Independent Consultant met, as needed and with the knowledge of the Chairman of the Compensation Committee, with our Chief Executive Officer, Senior Vice President of Human Resources and General Counsel.

### **Perquisites and Other Compensation**

We make only nominal use of perquisites in compensating our executive officers. All of our executive officers are entitled to be reimbursed for the cost of professional financial services. These services include tax planning, preparation and filing, as well as financial and estate planning services, up to a maximum of \$20,000 per calendar year.

In addition, our executive officers are eligible to participate in our 401(k) plan (including a Company match on employee 401(k) plan contributions) and the other employee benefit plans sponsored by us on the same terms and conditions that apply to all other employees.

### **Severance Benefits and Change of Control Agreements**

We have adopted an Executive Severance Plan that specifies the compensation and benefits that plan participants will receive in the event their employment with us terminates under certain defined circumstances, including a change of control. For further information, please see the section of this Proxy Statement entitled "Potential Payments Upon Termination or Change of Control." We believe that the Executive Severance Plan is important for the long-term retention of our senior executives and enhances their commitment to the attainment of our strategic objectives. The benefits provided under the Executive Severance Plan will allow the participating executives to continue to focus their attention on our business operations and strategic plans without undue concern over their own financial situation during periods when substantial disruptions and distractions might otherwise prevail. We believe that the severance benefits provided under the Executive Severance Plan are fair and reasonable in light of the level of dedication and commitment the participating executive officers have rendered the Company, the contribution they have made to our growth and financial success and the value that we expect to receive from retaining their services, including during challenging transition periods following a change of control.

### **Deferred Compensation**

We maintain an Executive Deferred Savings Plan, a nonqualified deferred compensation plan, which enables eligible employees to defer all or a portion

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of certain components of their compensation, with no Company match. For further information, please see the section of this Proxy Statement entitled Nonqualified Deferred Compensation. We do not provide any defined benefit pension benefits or any other retirement benefits to named executive officers, other than the 401(k) Savings Plan available to all of our employees. Accordingly, it is the objective of the Executive Deferred Savings Plan, in conjunction with gains realized from awards made under the 2004 Equity Incentive Plan and the benefits payable under the Executive Severance Plan, to provide named executive officers with a meaningful opportunity to accumulate resources to fund their retirement income.

**Executive Retiree Medical Plan**

Certain current and former senior executive officers who meet defined eligibility criteria, and their eligible dependents, are entitled to continued medical benefits following their retirement. To be eligible, an executive must be at least 55 years old with ten years of service with us, and must be in good standing with us at the time of his or her retirement. Eligible executives are entitled to participate until age 65. Spouses of eligible executives may also participate until age 65, but subject to a maximum participation period of 15 years. Children of eligible executives may also participate until age 19 (or age 25, for full-time students), but their eligibility terminates upon the termination of coverage for an eligible parent. The Company and the participant share the cost of the premiums of such medical coverage, with our portion of the premium being equal to the amount that we pay to provide such coverage for current employees. No named executive officers are currently eligible to participate in the program.

**Stock Ownership Guidelines; Policy Regarding Hedging**

In November 2008, our Board of Directors adopted revised stock ownership guidelines applicable to our executive officers. Under that policy, our executives are expected to own KLA-Tencor common stock having a minimum value, denominated as a multiple of their annual base salaries, as follows:

Title	Shares
CEO	Value of at least four times annual base salary
EVP/SVP	Value of at least two times annual base salary

Unexercised options and unearned performance shares or units do not count for purposes of measuring compliance with the ownership guidelines. The value of unvested restricted stock or stock units is included in measuring compliance. The recommended time period for reaching the guidelines is the later of (a) November 13, 2012 or (b) the fourth anniversary from when the individual becomes subject to these guidelines. With respect to our Chief Executive Officer, the Compensation Committee will conduct an annual review to assess compliance with the guidelines, once they become effective. Vice Presidents' compliance will be evaluated by the Chief Executive Officer. We believe that each of our executives subject to these ownership guidelines is on schedule to be in compliance with the guidelines by the applicable deadline.

Under our Policy on Insider Trading and Unauthorized Disclosures, our Directors and employees (including our named executive officers) are not permitted to engage in short sales of the Company's securities or any hedging or derivative securities transactions relating to the Company's securities.

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### **Accounting and Tax Considerations**

Section 162(m) of the Internal Revenue Code disallows an income tax deduction to publicly-traded companies for compensation paid to the Chief Executive Officer and the three other highest paid executive officers (other than the Chief Financial Officer), to the extent that compensation exceeds \$1 million per officer in any taxable year and does not otherwise qualify as performance-based compensation. Our existing equity compensation plans, including the 2004 Equity Incentive Plan, are structured so that the compensation deemed paid to an executive officer in connection with the vesting of performance share awards and the exercise of stock options granted under those plans should qualify as performance-based compensation. However, awards made under those plans may or may not qualify as performance-based compensation. For example, the service-based restricted stock units (as differentiated from the performance share awards) granted to our executive officers in August 2010 will not qualify as performance-based compensation because the vesting of those awards is tied solely to continued service over a four-year period, whereas the performance shares granted to the executive officers in August 2010 are expected to qualify as performance-based compensation (to the extent they are earned).

Our annual Performance Bonus Plan is a cash bonus plan structured in a manner that will allow us to qualify all or part of the compensation earned under that plan as performance-based compensation. As a result, it is anticipated that a substantial portion of any incentive compensation earned by the executive officers under that plan for fiscal year 2011 should qualify as performance-based compensation and should therefore not be subject to the \$1 million limitation.

The Compensation Committee continues to consider steps that might be in our best interests to comply with Section 162(m). However, in establishing the cash and equity incentive compensation programs for the executive officers, the Compensation Committee believes that the potential deductibility of the compensation payable under those programs should be only one of a number of relevant factors taken into consideration, and not the sole or primary factor. The Compensation Committee believes that cash and equity incentive compensation must be maintained at the requisite level to attract and retain the executive officers essential to the Company's financial success, even if all or part of that compensation may not be deductible by reason of the Section 162(m) limitation.

### **Clawback Policy**

We maintain a clawback policy, set forth in the Compensation Committee's charter, which provides that in the event of a significant restatement of financial results resulting from fraud, misconduct, material non-compliance or material errors, the Compensation Committee may (in its sole discretion, but acting in good faith and in compliance with applicable laws) direct that the Company recover all or a portion of performance-based compensation, including bonuses and long term incentive awards, made to executive officers during the restatement period. The amount to be recovered from an executive officer will be the amount by which the performance-based compensation exceeded the amount that would have been payable to the executive officer had the financial statements been initially filed as restated, or any greater or lesser amount (including, but not limited to, the entire award) that the Compensation Committee determines. The Compensation Committee may

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determine to recover different amounts from different executive officers on such basis it deems appropriate. The Compensation Committee will determine whether the Company is to effect any such recovery: (i) by seeking repayment from the applicable executive officer, (ii) by reducing (subject to applicable law and the terms and conditions of the applicable plan, program or arrangement) the amount that would otherwise be payable to the executive officer under any compensatory plan, program or arrangement maintained by us, (iii) by withholding (subject to applicable law and the terms and conditions of the applicable plan, program or arrangement) payment of future increases in compensation (including the payment of any discretionary bonus amount) or grants of compensatory awards that would otherwise have been made in accordance with our otherwise applicable compensation practices, or (iv) by any combination of the foregoing or otherwise.

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**COMPENSATION COMMITTEE REPORT**

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

The Compensation Committee has reviewed and discussed with management the Compensation Discussion and Analysis. Based on that review and its discussions, the Compensation Committee recommended to the Board that the Compensation Discussion and Analysis be included in this Proxy Statement.

Kevin J. Kennedy, Chairman

Robert P. Akins

Edward W. Barnholt

Robert T. Bond

John T. Dickson

**Table of Contents****EXECUTIVE COMPENSATION TABLES****Summary Compensation Table**

The following table sets forth certain summary information concerning the compensation earned for services rendered in all capacities to the Company and its subsidiaries for the fiscal years ended June 30, 2010, 2009 and 2008 by our Chief Executive Officer, our Chief Financial Officer and each of the other executive officers whose total compensation for that fiscal year exceeded \$100,000 and who were serving as executive officers as of June 30, 2010. No other executive officers who would have otherwise been includable in such table on the basis of their compensation for the fiscal year ended June 30, 2010 have been excluded by reason of their termination of employment or change in executive status during that year. The individuals named in the table below will be referred to as the named executive officers.

Name and Principal Position (a)	Year (b)	Salary (\$ (1) (c)	Bonus (\$ (2) (d)	Stock Awards (\$ (3) (e)	Non-Equity Incentive Plan Compensation (\$ (1) (4) (f)	Change in Pension Value and Nonqualified Deferred Compensation Earnings (\$ (5) (g)	All Other Compensation (\$ (6) (h)	Total (\$) (i)
Richard P. Wallace President & Chief Executive Officer	2010	780,769		5,898,690(7)	3,130,494	131,120	21,684	9,962,757
	2009	700,000		3,696,000(8)		(9)	21,246	4,417,246
	2008	695,308	368,618(10)	4,427,000(11)	1,078,422	(9)	19,727	6,589,075
Mark P. Dentinger Executive Vice President & Chief Financial Officer	2010	400,000		2,674,260(7)	891,000		21,211	3,986,471
	2009	320,000		763,200			3,234	1,086,434
Brian M. Martin Senior Vice President, General Counsel & Corporate Secretary	2010	337,115		1,337,130(7)	700,863	2,948	10,862	2,388,918
	2009	325,000		1,096,800(8)		(9)	21,114	1,442,914
	2008	325,000		220,163(11)	229,125	(9)	18,454	792,742
Virendra A. Kirloskar Senior Vice President & Chief Accounting Officer	2010	278,723		715,284(7)	538,075		6,343	1,538,425
	2009	270,000		584,960(8)			15,848	870,808
	2008	233,959	9,057(12)	651,220	116,638		41,853	1,052,727

- (1) Includes amounts deferred under our 401(k) Plan, a tax-qualified deferred compensation plan under Section 401(k) of the Internal Revenue Code, and our Executive Deferred Savings Plan ( EDSP ), a nonqualified deferred compensation program available to the executive officers and certain other employees.
- (2) Includes amounts deferred under our EDSP.
- (3) The amounts shown in column (e) represent the aggregate grant date fair value, calculated in accordance with the SEC's applicable requirements (including the recent changes in the SEC's disclosure rules), of all restricted stock units ( RSUs ) and performance shares awarded to the particular executive officer during the applicable fiscal year. The SEC's disclosure rules, as in effect for our fiscal year 2009 proxy statement and prior years' proxy statements, previously required that we present stock award information in the Summary Compensation Table based on the amount recognized during the corresponding year for financial statement reporting purposes with respect to all stock awards outstanding during that year (regardless of when they had been granted). However, the recent changes in the SEC's disclosure rules require that we now present the stock award amounts in this column (e) using the grant date fair value of the awards granted during the applicable year, not only for fiscal year 2010 but also for fiscal years 2009 and 2008. Since this requirement differs from the SEC's past disclosure rules, the amounts reported in the table above for stock awards in fiscal years 2009 and 2008 differ from the amounts previously reported in our Summary Compensation Table for these years. As a result, each named executive officer's total compensation amounts for fiscal years 2009 and 2008 also differ from the amounts previously reported in our Summary Compensation Table for these years.

With respect to RSUs (i.e., awards issued with only service-based vesting criteria and no performance-based vesting criteria), the grant date fair value of each such RSU has been computed in accordance with the provisions of Financial Accounting Standards Board ( FASB ) Accounting Standards Codification Topic 718, referred to in this Proxy Statement as ASC 718 (except that the fair values set forth above have not been reduced by the Company's estimated forfeiture rate). The ASC 718 grant date fair value of each RSU award was calculated based on the fair market value of our Common Stock on the award date.

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With respect to performance shares (i.e., awards issued with both service-based and performance-based vesting criteria), the grant date fair value of each such RSU has been computed in accordance with ASC 718 based on the probable outcome (determined as of the grant date) of the performance-based conditions applicable to the awards and the fair market value of our Common Stock on the award date. For more information regarding specific awards, please refer to footnotes (7), (8) and (11) to this Summary Compensation Table.

We did not grant any stock options to any of the named executive officers during fiscal years 2010, 2009 or 2008.

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- (4) The amounts shown in column (f) for fiscal year 2010 reflect the payments earned by each named executive officer under our fiscal year 2010 Performance Bonus Plan.

The amounts shown in column (f) for fiscal year 2009 reflect the fact that, due to the Company's financial performance during fiscal year 2009, no payments were made to any of the named executive officers under our fiscal year 2009 Performance Bonus Plan.

The amounts shown in column (f) for fiscal year 2008 reflect the following payments earned by each named executive officer under our fiscal year 2008 Performance Bonus Plan: Mr. Wallace: \$1,078,422; Mr. Martin: \$229,125; and Mr. Kirloskar: \$48,320. In addition, during the 2008 fiscal year, Mr. Kirloskar earned bonuses of \$22,315 under the Company's FY08 Vice President PFO Incentive Plan and \$46,003 under our fiscal year 2008 Annual Incentive Bonus Plan prior to becoming an executive officer of the Company.

- (5) The amounts in column (g) for fiscal year 2010 represent investment earnings (if any) credited during that fiscal year to each named executive officer's deferred compensation account under our EDSP. The credited earnings (as applicable) correspond to the actual market earnings on a select group of investment funds utilized to track the notional investment return on the named executive officer's account balance for the fiscal year. We have not made any determination as to which portion of such earnings may be considered above market for purposes of this Summary Compensation Table and have elected to report the entire amount of such earnings.

The amounts in column (g) for fiscal years 2008 and 2009 represent zero values for all named executive officers, as all named executive officers either (i) did not participate in the EDSP or (ii) incurred a loss for the fiscal year on their investments in the EDSP (which losses, if any, are not reported in the Summary Compensation Table above so as to not understate the applicable officers' aggregate compensation). For more information regarding the participation of the named executive officers in the EDSP, please refer to footnote (9) to this Summary Compensation Table and the section of this Proxy Statement below entitled "Nonqualified Deferred Compensation."

- (6) The amounts presented in column (h) consist of the following:  
For the fiscal year ended June 30, 2010:

Reimbursement of Financial Planning and Tax Preparation Costs (\$)	Term Life Insurance Premiums (\$)	Tax Payments and Tax Gross-Up Amounts Related to Foreign Assignment (\$)	Total (\$)
18,135	549		21,684
17,930	281		

We have never paid cash dividends and do not anticipate paying cash dividends in the foreseeable future. The payment of dividends will depend on our earnings, capital requirements, financial condition, prospects and other factors our board of directors may deem relevant. In addition, our Loan Agreement with CRG prohibits us from, among other things, paying any dividends or making any other distribution or payment on account of our common stock. The terms of the Series A preferred stock also limit our ability to pay dividends.



## CAPITALIZATION

The following table sets forth our capitalization as of June 30, 2018:

on an actual basis; and

on a pro forma as adjusted basis, after giving effect to the sale of common stock issued to a vendor in July 2018, our July 2018 common stock issuance, the July 2018 Warrants, the issuance of 2,097 shares of common stock under the ODPP, 2,702,702 Class A Units at the assumed public offering price of \$1.11 per unit, which is the last reported sale price of our common stock on the Nasdaq Capital Market on October 17, 2018, and 7,000 Class B Units, at the assumed public offering price of \$1,000 per unit, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The as adjusted information in the balance sheet data below is illustrative only and will be adjusted based on the actual public offering price and other terms of this offering that will be determined at pricing. You should read this table together with the section entitled “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in our Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2018, which is incorporated by reference into this prospectus.

	<b>As of June 30, 2018</b>	
	<b>Actual</b>	<b>Pro Forma As Adjusted</b>
Cash and cash equivalents	\$10,144	\$19,011
Borrowings	\$7,823	\$7,823
Stockholders’ equity (deficit):		
Preferred stock, \$0.001 par value; 5,000,000 shares authorized, 43,501 shares issued and outstanding, actual; 5,000,000 shares authorized, 50,501 shares issued and outstanding, pro forma as adjusted	—	—
Common stock, \$0.001 par value; 100,000,000 shares authorized, 9,305,872 shares issued and outstanding, actual; 100,000,000 shares authorized, 14,256,851 shares issued and outstanding, pro forma as adjusted	8	13

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Additional paid-in capital	323,991	332,853
Accumulated deficit	(317,407)	(317,407)
Total stockholders' equity (deficit)	6,592	15,459
Total capitalization	\$14,415	\$23,282

There were 41,800 shares of Series A preferred stock, 1,701 shares of Series B preferred stock and no shares of Series C preferred stock outstanding prior to this offering. The number of shares of common stock in the table above is based on 9,305,872 shares outstanding as of June 30, 2018, and excludes:

84,842 shares of common stock issuable upon the exercise of stock options outstanding as of June 30, 2018 with a weighted average exercise price of \$194.72 per share;

18,825,306 shares of common stock issuable upon exercise of outstanding warrants, including those issuable upon exercise of the July 2018 Warrants;

3,306 unvested restricted stock units;

3,090,775 shares of common stock reserved for future issuance under our 2015 Plan and any additional shares that become available under our 2015 Plan pursuant to provisions thereof that automatically increase the share reserve under the plan each year;

27,515 shares of common stock reserved for future issuance under our ESPP and any additional shares that become available under our ESPP pursuant to provisions thereof that automatically increase the share reserve under the plan each year;

197,903 shares of common stock reserved for future issuance under our ODPP;

shares of common stock issuable under the Purchase Agreement with Lincoln Park;

shares of common stock issuable upon conversion of the Series A preferred stock;

shares of common stock issuable upon conversion of the Series B preferred stock; and

shares of common stock issuable upon conversion of the Series C preferred stock.

## DILUTION

A purchaser of our securities in this offering will be diluted to the extent of the difference between the price per share of our common stock in this offering and the net tangible book value per share of our common stock after this offering. As of June 30, 2018, our historical net tangible book value was \$6.6 million, or \$0.71 per share of common stock, based on 9,305,872 shares of our common stock outstanding at June 30, 2018. Our historical net tangible book value per share represents the amount of our total tangible assets reduced by the amount of our total liabilities, divided by the total number of shares of our common stock outstanding as of June 30, 2018.

After giving effect to our sale in this offering of 2,702,702 Class A Units and 7,000 Class B Units in this offering, including the 6,307,000 shares of common stock that the Series C preferred stock to be issued will be convertible into, at an assumed public offering price of \$1.11 per Class A Unit, an assumed public offering price of \$1,000 per Class B Unit, an assumed Series C preferred stock conversion price of \$1.11 per share, and, after excluding shares that may be issued upon exercise of the underwriter's overallotment option, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our net tangible book value as of June 30, 2018 would have been \$15.5 million, or \$0.84 per share of our common stock. This amount represents an immediate increase of net tangible book value to our existing stockholders of \$0.13 per share and an immediate dilution of \$0.27 per share to the new investors purchasing securities in this offering. The dilution information discussed below is illustrative only and will change based on the actual public offering price and other terms of this offering determined at pricing. The following table illustrates this dilution:

Assumed public offering price per share	\$1.11
Historical net tangible book value per share as of June 30, 2018	\$0.71
Increase in net tangible book value per share attributable to new investors in	\$0.13

this offering  
 Pro forma as  
 adjusted net  
 tangible  
 book value \$0.84  
 per share  
 after the  
 offering  
 Dilution per  
 share to \$0.27  
 investors in  
 this offering

There were 41,800 shares of Series A preferred stock, 1,701 shares of Series B preferred stock and no shares of Series C preferred stock outstanding prior to this offering. The above discussion and table are based on 9,305,872 shares of Common stock outstanding as of June 30, 2018, and excludes:

the issuance of 80,000 shares of common stock to a vendor in July 2018;

the issuance of 2,166,180 shares of common stock in July 2018;

the issuance of 2,097 shares of common stock under our ODPP;

84,842 shares of common stock issuable upon the exercise of stock options outstanding as of June 30, 2018 with a weighted average exercise price of \$194.72 per share;

18,825,306 shares of common stock issuable upon exercise of outstanding warrants, including those issuable upon exercise of the July 2018 Warrants;

3,306 unvested restricted stock units;

3,090,775 shares of common stock reserved for future issuance under our 2015 Plan and any additional shares that become available under our 2015 Plan pursuant to provisions thereof that automatically increase the share reserve under the plan each year;

27,515 shares of common stock reserved for future issuance under our ESPP and any additional shares that become available under our ESPP pursuant to provisions thereof that automatically increase the share reserve under the plan each year;

• 197,903 shares of common stock reserved for future issuance under our ODPP;

• shares of common stock issuable under the Purchase Agreement with Lincoln Park;

• shares of common stock issuable upon conversion of the Series A preferred stock;

• shares of common stock issuable upon conversion of the Series B preferred stock; and

• shares of common stock issuable upon conversion of the Series C preferred stock.

To the extent that outstanding options or warrants are exercised, you will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans. In the event that additional capital is raised through the sale of equity, our stockholders will be further diluted.

## BUSINESS

### Overview

We are a commercial-stage medical device company that designs, manufactures and sells image-guided, catheter-based systems that are used by physicians to treat patients with peripheral artery disease, or PAD. Patients with PAD have a build-up of plaque in the arteries that supply blood to areas away from the heart, particularly the pelvis and legs. Our mission is to significantly improve the treatment of vascular disease through the introduction of products based on our Lumivascular platform, the only intravascular image-guided system available in this market. We manufacture and sell a suite of products in the United States and select international markets. Our current products include our Lightbox imaging console, the Ocelot family of catheters, which are designed to allow physicians to penetrate a total blockage in an artery, known as a chronic total occlusion, or CTO, and Pantheris, our image-guided atherectomy device which is designed to allow physicians to precisely remove arterial plaque in PAD patients. In October 2015 we received 510(k) clearance from the U.S. Food and Drug Administration, or FDA, for commercialization of Pantheris, and we received additional 510(k) clearances for enhanced versions of Pantheris in March 2016 and May 2018 and commenced sales of Pantheris in the United States and select European countries promptly thereafter. We also offer the Wildcat and KittyCat 2 catheters, which are used for crossing CTOs but do not contain on-board imaging technology.

Current treatments for PAD, including bypass surgery, can be costly and may result in complications, high levels of post-surgery pain, and lengthy hospital stays and recovery times. Minimally invasive, or endovascular, treatments for PAD include stenting, angioplasty, and atherectomy, which is the use of a catheter-based device for the removal of plaque. These treatments all have limitations in their safety or efficacy profiles and frequently result in recurrence of the disease, also known as restenosis. We believe one of the main contributing factors to high restenosis rates for PAD patients treated with endovascular technologies is the amount of vascular injury that occurs during an intervention. Specifically, these treatments often disrupt the membrane between the outermost layers of the artery, which is referred to as the external elastic lamina, or EEL.

Our Lumivascular platform is the only technology that offers real-time visualization of the inside of the artery during PAD treatment through the use of optical coherence tomography, or OCT, a high resolution, light-based, radiation-free imaging technology. Our Lumivascular platform provides physicians with real-time OCT images from the inside of an artery, and we believe Ocelot and Pantheris are the first products to offer intravascular visualization during CTO crossing and atherectomy, respectively. We believe this approach will significantly improve patient outcomes by providing physicians with a clearer picture of the artery using radiation-free image guidance during treatment, enabling them to better differentiate between plaque and healthy arterial structures. Our

Lumivascular platform is designed to improve patient safety by enabling physicians to direct treatment towards the plaque, while avoiding damage to healthy portions of the artery.

During the first quarter of 2015, we completed enrollment of patients in VISION, a clinical trial designed to support our August 2015 510(k) filing with the FDA for our Pantheris atherectomy device. VISION was designed to evaluate the safety and efficacy of Pantheris to perform atherectomy using intravascular imaging and successfully achieved all primary and secondary safety and efficacy endpoints. We believe the data from VISION allows us to demonstrate that avoiding damage to healthy arterial structures, and in particular disruption of the external elastic lamina, which is the membrane between the outermost layers of the artery, reduces the likelihood of restenosis, or re-narrowing, of the diseased artery. Although the original VISION study protocol was not designed to follow patients beyond six months, we have worked with 18 of the 20 VISION sites to re-solicit consent from previous clinical trial patients in order to evaluate patient outcomes through 12 and 24 months following initial treatment. Data collection for the patients from participating sites was completed in May 2017, and we released the final 12 and 24-month results for a total of 89 patients in July 2017. We commenced commercialization of Pantheris as part of our Lumivascular platform in the United States and in select international markets in March 2016, after obtaining the required marketing authorizations. During the fourth quarter of 2017, we began enrolling patients in INSIGHT, a clinical trial designed to support a filing with the FDA to expand the indication for our Pantheris atherectomy device to include in-stent restenosis.

We are developing a next-generation version of our Pantheris atherectomy device, Pantheris SV, a lower profile Pantheris. The lower profile Pantheris has a smaller diameter and longer length that we believe will optimize it for use in smaller vessels. We submitted a 510(k) application for Pantheris SV in smaller vessels in August 2018 and received CE Marking approval in October 2018. In addition, we completed development of Pantheris 3.0 which we believe represents a significant improvement over our prior product. Pantheris 3.0 includes new features and design improvements to the handle, shaft, balloon and nose cone that we believe improves usability and reliability. On January 3, 2017, we announced the successful treatment of the first seven patients to be treated with Pantheris 3.0 by a vascular surgeon in Münster, Germany. Pantheris 3.0 received CE Marking approval in December 2017 and was cleared by the FDA in May 2018. The Pantheris 3.0 is available for commercial sale in the EU and United States.

We have assembled a team with extensive medical device development and commercialization capabilities. In addition to the commercialization of Pantheris in the United States and select international markets in March 2016, we began commercializing our initial non-Lumivascular platform products in 2009 and introduced our Lumivascular platform products in the United States in late 2012. We generated revenues of \$10.7 million in 2015, \$19.2 million in 2016, \$9.9 million in 2017 and \$3.9 million for the six months ended June 30, 2018.

## Our Products

Our current products include our Lightbox imaging console and our various catheters used in PAD treatment. All of our revenues are currently derived from sales of our Lightbox imaging console and our various PAD catheters and related services in the United States and select international markets. Each of our current products is, and our future products will be, designed to address significant unmet clinical needs in the treatment of vascular disease.

## LUMIVASCULAR PRODUCTS

<u>Name</u>	<u>Clinical Indication</u>	<u>Size (Length, Diameter)</u>	<u>Regulatory Status</u>	<u>Original Clearance Date</u>
<b>NEXT GENERATION PRODUCTS</b>				
Pantheris SV	Atherectomy		FDA 510(k) filed	
			CE Mark	October 2018
<b>PRODUCTS</b>				
Lightbox(1)	OCT Imaging	N/A	FDA Cleared	November 2012
			CE Mark	September 2011
Pantheris 3.0	Atherectomy		FDA Cleared	May 2018
			CE Mark	December 2017
Pantheris 8F	Atherectomy	110cm, 8 French (F)	FDA Cleared	October 2015
			CE Mark	June 2015
Pantheris 7F	Atherectomy	110cm, 7F	FDA Cleared	March 2016
			CE Mark	June 2015
Ocelot(2)	CTO Crossing	110cm, 6F	FDA Cleared	November 2012
			CE Mark	September 2011
Ocelot MVRX(2)	CTO Crossing	110cm, 6F	FDA Cleared	December 2012
Ocelot PIXL(2)	CTO Crossing	135/150cm, 5F	FDA Cleared	December 2012
			CE Mark	October 2012



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(1) Lightbox is cleared for use with compatible Avinger products.

The Ocelot system is intended to facilitate the intra-luminal placement of conventional guidewires beyond stenotic lesions including subtotal and chronic total occlusions in the peripheral vasculature prior to further percutaneous interventions using OCT-assisted orientation and imaging. The system is an adjunct to fluoroscopy and provides images of vessel lumen, plaques and wall structures. The Ocelot system is contraindicated for use in the iliac, coronary, cerebral, renal and carotid vasculature.

## NON-IMAGING PRODUCTS

<b><u>Name</u></b>	<b><u>Indication</u></b>	<b><u>Size (Length, Diameter)</u></b>	<b><u>Regulatory Status</u></b>	<b><u>Original Clearance Date</u></b>
Wildcat(1)	Guidewire Support	110cm, 6F	FDA Cleared	February 2009(3)
	CTO Crossing	110cm, 6F	FDA Cleared	August 2011
			CE Mark	May 2011
Kittycat 2(2)	CTO Crossing	150cm, 5F	FDA Cleared	October 2011
			CE Mark	September 2011

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The Wildcat catheter is intended to facilitate the intraluminal placement of conventional guidewires beyond stenotic lesions (including subtotal and chronic total occlusions) in the peripheral vasculature prior to further percutaneous intervention. The Wildcat catheter is (1) contraindicated for use in the iliac, coronary, cerebral, renal and carotid vasculature. The Wildcat catheter is intended to be used to support steerable guidewires in accessing discrete regions of the peripheral vasculature. It may be used to facilitate placement and exchange of guidewires and other interventional devices. It may also be used to deliver saline or contrast.

The Kittycat 2 catheter is intended to facilitate the intraluminal placement of conventional guidewires beyond stenotic lesions (including subtotal and chronic total occlusions) in the peripheral vasculature prior to further percutaneous intervention. The Kittycat 2 catheter is (2) contraindicated for use in the iliac, coronary, cerebral, renal and carotid vasculature.

(3) This original clearance date is for the 7F version of Wildcat. The commercially available version of Wildcat is listed and was cleared in August 2010.

### ***Lumivascular Platform Overview***

Our Lumivascular platform integrates OCT visualization with interventional catheters and is the industry's only system that provides real-time intravascular imaging during the treatment portion of PAD procedures. Our Lumivascular platform consists of a capital component, Lightbox, and a variety of disposable catheter products, including Ocelot, Ocelot PIXL, Ocelot MVRX and Pantheris.

### ***Lightbox***

Lightbox is our proprietary imaging console, which enables the use of Lumivascular catheters during PAD procedures. The console contains an optical transceiver that transmits light into the artery through an optical fiber and displays a cross-sectional image of the vessel to the physician on a high definition monitor during the procedure. Lightbox is configured with two monitors, one for the physicians, and one for the Lightbox technician.

Lightbox displays a cross-sectional view of the vessel, which provides physicians with detailed information about the orientation of the catheter and the surrounding artery and plaque. Layered structures represent relatively healthy portions of the artery and non-layered structures represent the plaque that is blocking blood flow in the artery. Navigational markers allow the physician to orient the catheter toward the treatment area, helping to avoid damage to the healthy arterial structures during a procedure. Lightbox received FDA 510(k) clearance in November 2012 and CE Mark in Europe in September 2011.

### ***Pantheris***

We believe Pantheris is the first atherectomy catheter to incorporate real-time OCT intravascular imaging. Pantheris may be used alone or following a CTO crossing procedure using Ocelot or other products. Pantheris is a single-use product and provides physicians with the ability to see a cross-sectional view of the artery throughout the procedure. The device restores blood flow by shaving thin strips of plaque using a high-speed directional cutting mechanism that enables physicians to specifically target the portion of the artery where the plaque resides while minimizing disruption to healthy arterial structures. The excised plaque is deposited in the nosecone of the device and removed from the artery within the device.

In October 2015, we received 510(k) clearance from the FDA for commercialization of Pantheris. We made modifications to Pantheris after the completion of the VISION trial and commenced sales in the United States and select international markets following receipt of FDA approval for this version of Pantheris in March 2016. We first received CE Mark for Pantheris in June 2015.

We are developing a next-generation version of our Pantheris atherectomy device, Pantheris SV, a lower profile Pantheris. The lower profile Pantheris has a smaller diameter and longer length that we believe will optimize it for use in smaller vessels. We submitted a 510(k) application for Pantheris SV in smaller vessels in August 2018 and received CE Marking approval in October 2018. In addition, we completed development of Pantheris 3.0 which we believe represents a significant improvement over our prior product. Pantheris 3.0 includes new features and design improvements to the handle, shaft, balloon and nose cone that we believe improves usability and reliability. We received 510(k) clearance for Pantheris 3.0 in May 2018.

### ***Ocelot, Ocelot PIXL and Ocelot MVRX***

Ocelot is the first CTO crossing catheter to incorporate real-time OCT imaging, which allows physicians to see the inside of an artery during a CTO crossing procedure. Physicians have traditionally relied solely on fluoroscopy and tactile feedback to guide catheters through complicated blockages. Ocelot allows physicians to accurately navigate through CTOs by utilizing the OCT images to precisely guide the device through the arterial blockage, while minimizing disruption to the healthy arterial structures. We received CE Mark for Ocelot in September 2011 and received FDA 510(k) clearance in November 2012.

We also offer Ocelot PIXL, a lower profile CTO crossing device for below-the-knee arteries and Ocelot MVRX, which offers a different tip design for peripheral arteries above the knee. We received CE Mark for Ocelot PIXL in October 2012 and received FDA 510(k) clearance in December 2012. We received FDA 510(k) clearance for Ocelot MVRX in December 2012.

### ***Other Products***

Our first-generation CTO crossing catheters, Wildcat and KittyCat 2, employ a proprietary design that uses a rotational spinning technique, allowing the physician to switch between passive and active modes when navigating across a CTO. Once across the CTO, Wildcat and KittyCat 2 allow for placement of a guidewire and removal of the catheter while leaving the wire in place for additional therapies. Both products require the use of fluoroscopy rather than our Lumivascular platform for imaging. Wildcat was our first commercial product and has received both FDA 510(k) clearance in the United States and CE Mark in Europe for crossing peripheral artery CTOs. KittyCat 2 has FDA 510(k) clearance in the United States and CE Mark clearance in Europe for the treatment of peripheral artery CTOs.

### **Clinical Development**

We have conducted several clinical trials to evaluate the safety and efficacy of our products, and we received FDA clearance for Wildcat and Ocelot for CTO crossing in 2011 and 2012, respectively, and for Pantheris in October 2015.

#### ***CONNECT (Wildcat)***

Our clinical trial for the Wildcat catheter, known as the CONNECT trial, was a prospective, multi-center, non-randomized trial that evaluated the safety and efficacy of Wildcat in crossing CTOs in arteries of the upper leg. The CONNECT trial enrolled 88 patients with CTOs at 15 centers in the United States. Patients were followed for 30 days post-procedure and an independent group of physicians verified the results to determine crossing efficacy and safety endpoints. The CONNECT trial demonstrated that Wildcat was able to cross 89% of CTOs following unsuccessful attempts to cross with standard guidewire techniques. The trial demonstrated a 95% freedom from major adverse events, or MAEs. In the CONNECT trial, MAEs were defined as clinically significant perforations or embolizations and/or Grade C or greater dissections occurring within 30 days of the procedure. These results represent the second-highest reported CTO crossing rate of any published CTO clinical trial, exceeded only by our subsequent CONNECT II clinical trial results.

#### ***CONNECT II (Ocelot)***

Our clinical trial for Ocelot, known as CONNECT II, was a prospective, multi-center, non-randomized trial that evaluated the safety and efficacy of Ocelot in crossing CTOs in arteries of the upper leg using OCT intravascular imaging. The CONNECT II trial enrolled 100 patients with CTOs at 14 centers in the United States and two centers in Europe. Patients were followed for 30 days post-procedure and an independent group of physicians verified the results to confirm the primary efficacy and safety endpoints. Results from the CONNECT II trial demonstrated that Ocelot surpassed its primary efficacy endpoint by successfully crossing the CTO in 97% of the cases following unsuccessful attempts to cross with standard guidewire techniques. Ocelot achieved these rates with 98% freedom from MAEs.

### ***VISION (Pantheris)***

VISION was our pivotal, non-randomized, prospective, single-arm trial to evaluate the safety and effectiveness of Pantheris across 20 sites within the United States and Europe. The objective of the clinical trial was to demonstrate that Pantheris can be used to effectively remove plaque from diseased lower extremity arteries while using on-board visualization as an adjunct to fluoroscopy. Two groups of patients were treated in VISION: (1) optional roll-ins, which are typically the first two procedures at a site, and (2) the primary cohort, which are the analyzable group of patients. The data for these two groups were reported separately in our 510(k) submission to the FDA. Based on final enrollment, the primary cohort included 130 patients. In March 2015, we completed enrollment of patients in the VISION clinical trial and we submitted for 510(k) clearance from the FDA in August 2015. In October 2015, we received 510(k) clearance from the FDA for commercialization of Pantheris. We have made modifications to Pantheris subsequent to the completion of VISION and received 510(k) clearance on the enhanced version of Pantheris in March 2016.

VISION's primary efficacy endpoint required that at least 87% of lesions treated by physicians using Pantheris have a residual stenosis of less than 50%, as verified by an independent core laboratory. The primary safety endpoint required that less than 43% of patients experience an MAE through six-month follow-up as adjudicated by an independent Clinical Events Committee, or CEC. MAEs as defined in VISION included cardiovascular-related death, unplanned major index limb amputation, clinically driven target lesion revascularization, or TLR, heart attack, clinically significant perforation, dissection, embolus, and pseudoaneurysm. Results from the VISION trial demonstrated that Pantheris surpassed its primary efficacy and safety endpoints; residual restenosis of less than 50% was achieved in 96.3% of lesions treated in the primary cohort, while MAEs were experienced in 17.6% of patients.

Although not mandated by the FDA to support the market clearance of Pantheris, the protocol for the VISION trial allowed for routine histopathological analysis of the tissue extracted by Pantheris to be conducted. This process allowed us to determine the amount of adventitia present in the tissue, which in turn indicated the extent to which the external elastic lamina had been disrupted during Pantheris procedures. We completed histopathological analysis on tissue from 129 patients in the primary cohort, representing 162 lesions and determined that the average percent area of adventitia was only 1.0% of the total excised tissue. We believe the low level of EEL disruption will correlate to lower restenosis rates and improved long-term outcomes for patients treated with Pantheris, but we do not intend to make any promotional claims to that effect based on the data from this study. We published the results of the histopathological analysis in conjunction with the primary safety and efficacy endpoint data from the VISION trial.

Final VISION trial data are summarized in the table below.

	<b>Roll-In Cohort</b>	<b>Primary Cohort</b>	<b>Total</b>
Patients Treated	28	130	158
Lesions treated	34	164	198
<b>Primary Efficacy Endpoint</b>			
Lesions analyzed by core lab	34	164	198
Lesions meeting primary efficacy endpoint criterion of residual restenosis of less than 50% by core lab	100 % (34/34 )	96.3 % (158/164)	97 % (192/198)
<b>Primary Safety Endpoint (MAEs through 6 months)</b>			
Total MAEs Reported	3	22	25
Reported MAEs as a percentage of patients enrolled	11.5 % (3/26 )	17.6 % (22/125 )	16.6 % (25/151 )
<b>Histopathology Results (Non-Endpoint Data)</b>			
Lesions with histopathology results	34	162	196
Average percent area of adventitia in all lesions with histopathology results	0.56 %	1.02 %	0.94 %

Although the original VISION study protocol was not designed to follow patients beyond six months, in 2016 we began working with 18 of the VISION sites to re-consent patients in order for them to be evaluated for patient outcomes through 12 and 24 months following initial treatment. Data collection for patients from participating sites was completed in May 2017, and we released the final 12- and 24-month results for a total of 73 patients and 89 lesions in July 2017. The key metrics reported for this group were freedom from target lesion revascularization, or TLR, at 12 months and 24 months, which were 82% and 74% by patient and 83% and 76% by lesion, respectively, based on Kaplan-Meier curve assessments.

### ***INSIGHT (Pantheris)***

INSIGHT is a prospective, global, single-arm, multi-center study to evaluate the safety and effectiveness of Pantheris for treating in-stent restenosis in lower extremity arteries. In-stent restenosis occurs when a blocked artery previously treated with a stent becomes narrowed again, thereby reducing blood flow. Physicians often face challenges when treating in-stent restenosis both in terms of safety and efficacy. From a safety standpoint, limitations in imaging techniques, such X-ray fluoroscopy, and the inability to control the directionality of other atherectomy devices create concerns with impacting the integrity of the stent during the procedure. In terms of efficacy, current therapies for in-stent restenosis, such as balloon angioplasty, have high rates of recurrent narrowing within stents.

The INSIGHT trial allows for up to 140 patients to be treated at up to 20 sites in the United States and Europe. Patient enrollment began in October 2017 and is expected to continue through early 2019. Patient outcomes will be evaluated at thirty days, six months and one year following treatment. We plan to submit a 510(k) application with the FDA seeking a specific indication for treating in-stent restenosis with Pantheris once the trial is fully enrolled and follow-up data through six months are available and analyzed.

### **Sales and Marketing**

We focus our sales and marketing efforts primarily on the approximately 10,000 interventional cardiologists, vascular surgeons and interventional radiologists in the United States that are potential users of our Lumivascular platform products. Our marketing efforts are focused on developing strong relationships with physicians and hospitals that we have identified as key opinion leaders based on their knowledge of our products, clinical expertise and reputation. We also use continuing medical education programs and other opportunities to train interventional cardiologists, vascular surgeons, and interventional radiologists in the use of our Lumivascular platform products and educate them as to the benefits of our products as compared to alternative procedures such as angioplasty, stenting, bypass surgery or other atherectomy procedures. In addition, we work with physicians to help them develop their practices and with hospitals to market themselves as centers of excellence in PAD treatment by making our products available to physicians for treating patients.

Our sales team currently consists of a Vice President, Regional and Territory Sales Managers, Clinical Specialists, and one Director of International Sales. Territory Sales managers are responsible for all product sales, which include disposable catheters and sale and service of our Lightbox console, while Clinical Specialists are primarily responsible for case coverage and account support. We have an extensive hands-on sales training program, focused on our technologies, Lumivascular image interpretation, case management, sales processes, sales tools and implementing our sales and marketing programs and compliance with applicable federal and state laws and regulations. Our sales team is supported by our marketing team, which focuses primarily on clinical training and education, marketing communications and product management. We have partnered with a third party field service firm for the installation, service and maintenance of our Lightbox consoles.

As of December 31, 2017, we had 23 employees focused on sales and marketing. Our sales, general and administrative expenses for the years ended December 31, 2015, 2016, 2017 and for the six months ended June 30, 2018 were \$29.2 million, \$40.0 million, \$25.1 million and \$8.5 million, respectively. No single customer accounted for more than 10% of our revenues during 2015, 2016 and 2017, or for the six months ended June 30, 2018.

## **Competition**

The medical device industry is highly competitive, subject to rapid change and significantly affected by new product introductions, results of clinical research, corporate combinations and other factors relating to our industry. Because of the market opportunity and the high growth potential of the PAD treatment market, competitors and potential competitors have historically dedicated, and will continue to dedicate, significant resources to aggressively develop and commercialize their products.

Our products compete with a variety of products or devices for the treatment of PAD, including other CTO crossing devices, stents, balloons and atherectomy catheters, as well as products used in vascular surgery. Large competitors in the CTO crossing, stent and balloon market segments include Abbott Laboratories, Becton Dickinson, Boston Scientific, Cardinal Health, Cook Medical, Medtronic and Philips. Competitors in the atherectomy market include Boston Scientific, Cardiovascular Systems, Medtronic and Philips. Some competitors have attempted to combine intravascular imaging with atherectomy and although we are not aware of any active initiatives in this area, these and other companies may attempt to incorporate on-board visualization into their products in the future or may have ongoing programs of which we are not aware. Other competitors include pharmaceutical companies that manufacture drugs for the treatment of symptoms associated with mild to moderate PAD and companies that provide products used by surgeons in peripheral and coronary bypass procedures. These competitors and other companies may introduce new products that compete with our solution.



Many of our competitors have substantially greater financial, manufacturing, marketing and technical resources than we do. Furthermore, many of our competitors have well-established brands, widespread distribution channels and broader product offerings, and have established stronger and deeper relationships with target customers.

To compete effectively, we have to demonstrate that our products are attractive alternatives to other devices and treatments on the basis of:

• procedural safety and efficacy;

• acute and long-term outcomes;

• ease of use and procedure time;

• price;

• size and effectiveness of sales force;

• radiation exposure for physicians, hospital staff and patients; and

• third-party reimbursement.

## **Intellectual Property**

In order to remain competitive, we must develop and maintain protection of the proprietary aspects of our technologies. We rely on a combination of patents, copyrights, trademarks, trade secret laws and confidentiality and invention assignment agreements to protect our intellectual property rights.

It is our policy to require our employees, consultants, contractors, outside scientific collaborators and other advisors to execute non-disclosure and assignment of invention agreements on commencement of their employment or engagement. Agreements with our employees also forbid them from using the proprietary rights of third parties in their work for us. We also require confidentiality or material transfer agreements from third parties that receive our confidential data or materials.

As of June 30, 2018, we held 21 issued and allowed U.S. patents and had 25 U.S. utility patent applications and 6 PCT applications pending. As of June 30, 2018, we also had 34 issued and allowed patents outside of the United States. As of June 30, 2018, we had 41 pending patent applications outside of the United States, including in Australia, Canada, China, Europe, India and Japan. As we continue to research and develop our products and technology, we intend to file additional U.S. and foreign patent applications related to the design, manufacture and therapeutic uses of our devices. Our issued patents expire between the years 2028 and 2035.

Our patent applications may not result in issued patents and our patents may not be sufficiently broad to protect our technology. Any patents issued to us may be challenged by third parties as being invalid, or third parties may independently develop similar or competing technology that avoids our patents. The laws of certain foreign countries do not protect our intellectual property rights to the same extent as do the laws of the United States.

As of June 30, 2018, we held five registered U.S. trademarks and one pending U.S. trademark application. In Europe, we hold two registered trademarks. In addition, we held one International Registration under the Madrid Protocol with granted extensions to China, Europe, Japan, and Korea.

## **Research and Development**

Our ongoing research and development activities are primarily focused on improving and enhancing our Lumivascular platform, specifically our core competency of integrating OCT intravascular imaging onto therapeutic catheters. Our research objectives target areas of unmet clinical need, increase the utility of the Lumivascular platform and adoption of our products by healthcare providers.

***Product line improvements and extensions.*** We are developing improvements to our Lumivascular platform, including additional catheters for use in different clinical applications. For example, we are developing versions of Pantheris designed to treat smaller vessels, and we are also developing next-generation CTO crossing devices to target both the peripheral and coronary CTO markets.

***Additional treatment indications.*** We intend to seek additional regulatory clearances from FDA to expand the indications for which our products can be marketed within PAD, as well as in other areas of the body. This includes both expanding the marketed indications for our current products, as well as development of new products.

***Next-generation console.*** We are focusing our console development efforts on miniaturization, equipment integration and increased processing power in anticipation of future catheter products. We may also develop a version of our Lumivascular platform that integrates OCT imaging into existing catheterization lab and operating room imaging systems.

***Improved software and user interface.*** We intend to further develop our software to provide more information and control to our end users during a procedure. We use physician and staff feedback to improve the features and user functionality of our Lumivascular platform.

As of June 30, 2018, we had 10 employees focused on research and development. In addition to our internal team, we retain third-party contractors from time to time to provide us with assistance on specialized projects. We also work closely with experts in the medical community to supplement our internal research and development resources. Research and development expenses for the years ended December 31, 2015, 2016, and 2017 were \$15.7 million, \$15.5 million, and \$11.3 million, respectively. Research and development expenses for the three and six months ended June 30, 2018 were \$1.2 million and \$2.9 million, respectively.

## **Manufacturing**

Prior to the introduction of our Lumivascular platform, our non-imaging catheter products were manufactured by a third-party. All of our products are now manufactured in-house using components and sub-assemblies manufactured both in-house at our facility in Redwood City, California and by outside vendors. We assemble all of our products at our manufacturing facility but certain critical processes such as coating and sterilization are done by outside vendors. We expect our current manufacturing facility will be sufficient through at least 2019.

Our manufacturing operations are subject to regulatory requirements of 21 CFR part 820 of the Federal Food, Drug and Cosmetic Act, or FFDCA; the Quality System Regulation, or QSR, for medical devices sold in the United States, which is enforced by FDA; the Medical Devices Directive 93/42/EEC, which is required for doing business in the European Union; and applicable requirements relating to the environment, waste management and health and safety matters, including measures relating to the release, use, storage, treatment, transportation, discharge, disposal and remediation of hazardous substances, and the sale, labeling, collection, recycling, treatment and disposal of products containing hazardous substances. We cannot ensure that we will not incur material costs or liability in connection with our operations, or that our past or future operations will not result in claims by or injury to employees or the public.

Order quantities and lead times for components purchased from outside suppliers are based on our forecasts derived from historical demand and anticipated future demand. Lead times for components may vary significantly depending on the size of the order, time required to fabricate and test the components, specific supplier requirements and current market demand for the components and subassemblies. To date, we have not experienced significant delays in obtaining any of our components or subassemblies.

We rely on single and limited source suppliers for several of our components and sub-assemblies. For example, we rely on single vendors for our optical fiber and drive cables that are key components of our catheters, and we rely on single vendors for our laser and data acquisition card that are key components of our Lightbox. These components are critical to our products and there are relatively few alternative sources of supply for them. Identifying and qualifying additional or replacement suppliers for any of the components used in our products could involve significant time and cost. Any supply interruption from our vendors or failure to obtain additional vendors for any of the components used to manufacture our products would limit our ability to manufacture our products and could therefore harm our business, financial condition and results of operations.

Other than current accepted purchase orders, our suppliers have no contractual obligations to supply us with, and we are not contractually obligated to purchase from them, any of our supplies. Any supply interruption from our vendors or failure to obtain additional vendors for any of the components would limit our ability to manufacture our products and could have a material adverse effect on our business, financial condition and results of operations.

We have registered with FDA as a medical device manufacturer and have obtained a manufacturing license from the California Department of Public Health, or CDPH. We and our component suppliers are required to manufacture our products in compliance with FDA's QSR in 21 CFR part 820 of the FDCA. The QSR regulates extensively the methods and documentation of the design, testing, control, manufacturing, labeling, quality assurance, packaging, storage and shipping of our products. FDA enforces the QSR through periodic unannounced inspections that may include the manufacturing facilities of our subcontractors. Our Quality System has undergone 20 external audits by third-parties and regulatory authorities since 2009, the latest of which was a surveillance audit conducted in January 2017 by BSI, our European Notified Body, under the Medical Device Single Audit Program, or MDSAP. The audit resulted in zero observations of non-conformances.

Our failure or the failure of our component suppliers to maintain compliance with the QSR requirements could result in the shutdown of our manufacturing operations or the recall of our products, which would harm our business. In the event that one of our suppliers fails to maintain compliance with our or governmental quality requirements, we may have to qualify a new supplier and could experience manufacturing delays as a result. We have opted to maintain quality assurance and quality management certifications to enable us to market our products in the member states of the European Union, the European Free Trade Association and countries which have entered into Mutual Recognition Agreements with the European Union. Our Redwood City facilities meet the requirements set forth by ISO 13485:2003 Medical devices—Quality management systems—Requirements for regulatory purposes and MDD 93/42/EEC European Union Council Medical Device Directive.

## **Government Regulation**

In general, medical device companies must navigate a challenging regulatory environment. In the United States the FDA regulates the medical device market to ensure the safety and efficacy of these products. The FDA allows for two primary pathways for a medical device to gain approval for commercialization: a successful pre-market approval, or PMA application or 510(k) premarket notification submission. A completely novel product must go through the more rigorous PMA if it cannot receive authorization through a 510(k). The FDA has established three different classes of medical devices that indicate the level of risk associated with using a device and consequent degree of regulatory controls needed to govern its safety and efficacy. Class I and Class II devices are considered lower risk and often can gain approval for commercial distribution by submitting an application to the FDA, generally known as the 510(k) process. The devices regarded as the highest risk by the FDA are designated Class III status and generally require the submission of a PMA application for approval to commercialize a product. These generally include life-sustaining, life-supporting, or implantable devices or devices without a known predicate technology already approved by the FDA.

The 510(k) clearance path can be significantly less time-consuming and arduous than PMA approval, making this route generally preferable for a medical device company. A 510(k) application must include documentation that its device is substantially equivalent to a technology already cleared through a 510(k) or in distribution before May 28, 1976 for which the FDA has not required a PMA submission. The FDA has 90 days from the date of the premarket equivalence acceptance to authorize or decline commercial distribution of the device. However, similar to the PMA process, clearance may take longer than this three-month window, as the FDA can request additional data. If the FDA resolves that the product is not substantially equivalent to a predicate device, then the device acquires a Class III designation, and a PMA must be approved before the device can be commercialized. All of our currently marketed products have received commercial clearance and associated indications for use through the 510(k) regulatory pathway with the FDA, some with the support of clinical data.

After a device receives 510(k) clearance, any modification that could significantly affect its safety or effectiveness, or that would constitute a change in its intended use, will require a new 510(k) submission and clearance before the modified device can be commercialized. The FDA requires each manufacturer to make this determination initially, but the FDA can review any such decision and can disagree with the manufacturer's determination. If the FDA disagrees with the determination not to seek a new 510(k) clearance or PMA the FDA may retroactively require a new 510(k) clearance or premarket approval. The FDA could also require a manufacturer to cease marketing and distribution of the modified device and/or recall the modified device until 510(k) clearance or PMA approval is obtained. Also, in these circumstances, a manufacturer may be subject to significant regulatory fines, penalties, and enforcement actions.

A PMA application must include reasonable scientific and clinical data that demonstrates the device is safe and effective for the intended uses and indications being sought. The application must also include preclinical testing, technical, manufacturing and labeling information. If the FDA determines the application can undergo substantive review, it has 180 days to review the submission, but it can typically take longer (up to several years) as this regulatory body can request additional information or clarifications. The FDA may also impose additional regulatory hurdles for a PMA, including the institution of an advisory panel of experts to assess the application or provide recommendations as to whether to approve the device. Although the FDA in the end approves or disapproves the device, in nearly all cases the FDA follows the recommendation from the advisory panel. As part of this process, the FDA will usually inspect the manufacturing facilities and operations prior to approval to verify compliance with quality control regulations. Significant changes in the manufacturing of a device, or changes in the intended use, indications and labeling or design of a product require new PMA applications or PMA supplements for a product originally approved under a PMA. This creates substantial regulatory risk for devices undergoing the PMA route.

### ***Pervasive and Continuing Regulation***

After a device is placed on the market, numerous regulatory requirements continue to apply. These include:

- the FDA's QSR which requires manufacturers, including third-party manufacturers, to follow stringent design, testing, control, documentation and other quality assurance procedures during all aspects of the manufacturing process;

- labeling regulations and FDA prohibitions against the promotion of products for uncleared, unapproved or off-label uses;

clearance or approval of product modifications that could significantly affect safety or efficacy or that would constitute a major change in intended use;

medical device reporting, or MDR, regulations, which require that manufacturers report to the FDA if their device may have caused or contributed to a death or serious injury or malfunctioned in a way that would likely cause or contribute to a death or serious injury if the malfunction were to recur; and

post-market surveillance regulations, which apply when necessary to protect the public health or to provide additional safety and effectiveness data for the device.

The MDR regulations require that we report to the FDA any incident in which our product may have caused or contributed to a death or serious injury or in which our product malfunctioned and, if the malfunction were to recur, would likely cause or contribute to death or serious injury.

We have registered with the FDA as a medical device manufacturer and have obtained a manufacturing license from the CDPH. The FDA has broad post-market and regulatory enforcement powers. We are subject to unannounced inspections by the FDA and the Food and Drug Branch of CDPH to determine our compliance with the QSR and other regulations, and these inspections may include the manufacturing facilities of our suppliers. Our current facility has been inspected by the FDA in 2009, 2011 and 2013, and two, three and zero observations, respectively, were noted during those inspections. In the latest FDA audit in 2013, there were no observations that involved a material violation of regulatory requirements, and no non-conformances were noted. Our responses to the observations noted in 2009 and 2011 were accepted by the FDA, and we believe that we are in substantial compliance with the QSR. BSI, our European Notified Body, inspected our facility several times between 2010 and 2015 and found zero non-conformances. BSI conducted a recertification audit (for EU) in 2016 followed by surveillance audits in 2017 and 2018, and found no major non-conformances. Additionally, BSI also audited the Company for QSR compliance under MDSAP for the FDA in July 2016, and found no major non-conformances.

Failure to comply with applicable regulatory requirements can result in enforcement action by FDA, which may include any of the following sanctions:

- warning letters, adverse publicity, fines, injunctions, consent decrees and civil penalties;

- repair, replacement, refunds, recall or seizure of our products;



operating restrictions, partial suspension or total shutdown of production;

refusing our requests for 510(k) clearance or premarket approval of new products, new intended uses or modifications to existing products;

withdrawing 510(k) clearance or premarket approvals that have already been granted; and

criminal prosecution.

### ***Regulatory System for Medical Devices in Europe***

The European Union consists of 28 member states and has a coordinated system for the authorization of medical devices. The E.U. Medical Devices Directive, or MDD, sets out the basic regulatory framework for medical devices in the European Union. This directive has been separately enacted in more detail in the national legislation of the individual member states of the European Union.

The system of regulating medical devices operates by way of a certification for each medical device. Each certificated device is marked with CE mark which shows that the device has a Certificat de Conformité. There are national bodies known as Competent Authorities in each member state which oversee the implementation of the MDD within their jurisdiction. The means for achieving the requirements for CE mark varies according to the nature of the device. Devices are classified in accordance with their perceived risks, similarly to the U.S. system. The class of a product determines the requirements to be fulfilled before CE mark can be placed on a product, known as a conformity assessment. Conformity assessments for our products are carried out as required by the MDD. Each member state can appoint Notified Bodies within its jurisdiction. If a Notified Body of one member state has issued a Certificat de Conformité, the device can be sold throughout the European Union without further conformance tests being required in other member states.

### ***Federal, State and Foreign Fraud and Abuse Laws***

Because of the significant federal funding involved in Medicare and Medicaid, Congress and the states have enacted, and actively enforce, a number of laws to eliminate fraud and abuse in federal healthcare programs. Our business is subject to compliance with these laws. In March 2010, the Recipient Protection and Affordable Care Act, as amended by the Healthcare and Education Affordability Reconciliation Act, which we refer to collectively as the Affordable Care Act, was enacted in the United States. The provisions of the Affordable Care Act are effective on various dates. The Affordable Care Act expands the government's investigative and enforcement authority and increases the penalties for fraud and abuse, including amendments to both the Anti-Kickback Statute and the False Claims Act, to make it easier to bring suit under these statutes. The Affordable Care Act also allocates additional resources and tools for the government to police healthcare fraud, with expanded subpoena power for HHS, additional funding to investigate fraud and abuse across the healthcare system and expanded use of recovery audit contractors for enforcement.

*Anti-Kickback Statutes.* The federal healthcare programs' Anti-Kickback Statute prohibits persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual, or the furnishing or arranging for a good or service, for which payment may be made under a federal healthcare program such as Medicare or Medicaid.

The definition of "remuneration" has been broadly interpreted to include anything of value, including, for example, gifts, certain discounts, the furnishing of free supplies, equipment or services, credit arrangements, payment of cash and waivers of payments. Several courts have interpreted the statute's intent requirement to mean that if any one purpose of an arrangement involving remuneration is to induce referrals of federal healthcare covered businesses, the statute has been violated. Penalties for violations include criminal penalties and civil sanctions such as fines, imprisonment and possible exclusion from Medicare, Medicaid and other federal healthcare programs. In addition, some kickback allegations have been claimed to violate the Federal False Claims Act, discussed in more detail below.

The Anti-Kickback Statute is broad and prohibits many arrangements and practices that are otherwise lawful in businesses outside of the healthcare industry. Recognizing that the Anti-Kickback Statute is broad and may technically prohibit many innocuous or beneficial arrangements, Congress authorized the Office of Inspector General, or OIG, of HHS to issue a series of regulations known as "safe harbors." These safe harbors set forth provisions that, if all their applicable requirements are met, will assure healthcare providers and other parties that they will not be prosecuted under the Anti-Kickback Statute. The failure of a transaction or arrangement to fit precisely within one or more safe harbors does not necessarily mean that it is illegal or that

prosecution will be pursued. However, conduct and business arrangements that do not fully satisfy an applicable safe harbor may result in increased scrutiny by government enforcement authorities such as OIG.

Many states have adopted laws similar to the Anti-Kickback Statute. Some of these state prohibitions apply to referral of recipients for healthcare items or services reimbursed by any source, not only the Medicare and Medicaid programs.

Government officials have focused their enforcement efforts on the marketing of healthcare services and products, among other activities, and recently have brought cases against companies, and certain individual sales, marketing and executive personnel, for allegedly offering unlawful inducements to potential or existing customers in an attempt to procure their business.

*Federal False Claims Act.* Another development affecting the healthcare industry is the increased use of the federal False Claims Act, and in particular, action brought pursuant to the False Claims Act's "whistleblower" or "qui tam" provisions. The False Claims Act imposes liability on any person or entity that, among other things, knowingly presents, or causes to be presented, a false or fraudulent claim for payment by a federal healthcare program. The qui tam provisions of the False Claims Act allow a private individual to bring actions on behalf of the federal government alleging that the defendant has violated the False Claims Act and to share in any monetary recovery. In recent years, the number of suits brought against healthcare providers by private individuals has increased dramatically. In addition, various states have enacted false claims laws analogous to the False Claims Act, and many of these state laws apply where a claim is submitted to any third-party payor and not just a federal healthcare program.

When an entity is determined to have violated the False Claims Act, it may be required to pay up to three times the actual damages sustained by the government, plus civil penalties of between \$5,500 and \$11,000 for each separate instance of false claim. As part of any settlement, the government may ask the entity to enter into a corporate integrity agreement, which imposes certain compliance, certification and reporting obligations. There are many potential bases for liability under the False Claims Act. Liability arises, primarily, when an entity knowingly submits, or causes another to submit, a false claim for reimbursement to the federal government. The federal government has used the False Claims Act to assert liability on the basis of inadequate care, kickbacks and other improper referrals, and improper use of Medicare numbers when detailing the provider of services, in addition to the more predictable allegations as to misrepresentations with respect to the services rendered. In addition, the federal government has prosecuted companies under the False Claims Act in connection with off-label promotion of products. Our future activities relating to the reporting of wholesale or estimated retail prices of our products, the reporting of discount and rebate information and other information affecting federal, state and third-party reimbursement of our products and the sale and marketing of our products may be subject to scrutiny under these laws.

While we are unaware of any current matters, we are unable to predict whether we will be subject to actions under the False Claims Act or a similar state law, or the impact of such actions. However, the costs of defending such claims, as well as any sanctions imposed, could significantly affect our financial performance.

*The Sunshine Act.* The Physician Payment Sunshine Act, or the Sunshine Act, which was enacted as part of the Affordable Care Act, requires all entities that operate in the United States and manufacturers of a drug, device, biologic or other medical supply that is covered by Medicare, Medicaid or the Children's Health Insurance Program to report annually to the Secretary of HHS: (i) payments or other transfers of value made by that entity, or by a third-party as directed by that entity, to physicians and teaching hospitals or to third parties on behalf of physicians or teaching hospitals; and (ii) physician ownership and investment interests in the entity. The payments required to be reported include the cost of meals provided to a physician, travel reimbursements and other transfers of value, including those provided as part of contracted services such as speaker programs, advisory boards, consultation services and clinical trial services. Failure to comply with the reporting requirements can result in significant civil monetary penalties ranging from \$1,000 to \$10,000 for each payment or other transfer of value that is not reported (up to a maximum per annual report of \$150,000) and from \$10,000 to \$100,000 for each knowing failure to report (up to a maximum per annual report of \$1.0 million). Additionally, there are criminal penalties if an entity intentionally makes false statements in such reports. We are subject to the Sunshine Act and the information we disclose may lead to greater scrutiny, which may result in modifications to established practices and additional costs. Additionally, similar reporting requirements have also been enacted on the state level domestically, and an increasing number of countries worldwide either have adopted or are considering similar laws requiring transparency of interactions with healthcare professionals.

*Foreign Corrupt Practices Act.* The Foreign Corrupt Practices Act, or FCPA, prohibits any United States individual or business from paying, offering, or authorizing payment or offering of anything of value, directly or indirectly, to any foreign official, political party or candidate for the purpose of influencing any act or decision of the foreign entity in order to assist the individual or business in obtaining or retaining business. The FCPA also obligates companies whose securities are listed in the United States to comply with accounting provisions requiring us to maintain books and records that accurately and fairly reflect all transactions of the corporation, including international subsidiaries, if any, and to devise and maintain an adequate system of internal accounting controls for international operations.

*International Laws.* In Europe, various countries have adopted anti-bribery laws providing for severe consequences, in the form of criminal penalties and/or significant fines, for individuals and/or companies committing a bribery offense. Violations of these anti-bribery laws, or allegations of such violations, could have a negative impact on our business, results of operations and reputation. For instance, in the United Kingdom, under the Bribery Act 2010, which went into effect in July 2011, a bribery occurs when a person offers, gives or promises to give a financial or other advantage to induce or reward another individual to improperly perform certain functions or activities, including any function of a public nature. Bribery of foreign public officials also falls within the scope of the Bribery Act 2010. Under the new regime, an individual found in violation of the Bribery Act of 2010, faces imprisonment of up to 10 years. In addition, the individual can be subject to an unlimited fine, as can commercial organizations for failure to prevent bribery.

There are also international privacy laws that impose restrictions on the access, use, and disclosure of health information. All of these laws may impact our business. Our failure to comply with these privacy laws or significant changes in the laws restricting our ability to obtain required patient information could significantly impact our business and our future business plans.

### ***U.S. Healthcare Reform***

Changes in healthcare policy could increase our costs and subject us to additional regulatory requirements that may interrupt commercialization of our current and future solutions. Changes in healthcare policy could increase our costs, decrease our revenues and impact sales of and reimbursement for our current and future solutions. The Affordable Care Act substantially changed the way healthcare is financed by both governmental and private insurers, and significantly impacts our industry. The Act contains a number of provisions that impact our business and operations, some of which in ways we cannot currently predict, including those governing enrollment in federal healthcare programs and reimbursement changes.

There will continue to be proposals by legislators at both the federal and state levels, regulators and third-party payors to reduce costs while expanding individual healthcare benefits. Certain of these changes could impose additional limitations on the prices we will be able to charge for our current and future solutions or the amounts of reimbursement available for our current and future solutions from governmental agencies or third-party payors. Furthermore, the current presidential administration and Congress may again attempt broad sweeping changes to the current health care laws. We face uncertainties that might result from modification or repeal of any of the provisions of the Affordable Care Act, including as a result of current and future executive orders and legislative actions. The impact of those changes on us and potential effect on the medical device industry as a whole is currently unknown. But, any changes to the Affordable Care Act are likely to have an impact on our results of operations, and may have a material adverse effect on our results of operations. We cannot predict what other health care programs and regulations will ultimately be implemented at the federal or state level or the effect any future legislation or regulation in the United States may have on our business.

### **Third-Party Reimbursement**

Payment for patient care in the United States is generally made by third-party payors, including private insurers and government insurance programs, such as Medicare and Medicaid. The Medicare program, the largest single payor in the United States, is a federal governmental health insurance program administered by the Centers for Medicare and Medicaid Services, or CMS, and covers certain medical care expenses for eligible elderly and disabled individuals. Because a large percentage of the population with PAD includes Medicare beneficiaries, and private insurers may follow the coverage and payment policies of Medicare, Medicare's coverage and payment policies are significant to our operations.

Medicare pays PAD treatment facilities, including hospitals and physician office-based labs, pre-determined amounts for each procedure performed. These payment amounts differ based on a variety of factors, including:

• Type of procedure performed—angioplasty, stent or atherectomy;

• Patient-specific complexities and comorbidities;

• Type of facility—hospital, teaching hospital or office-based lab;

• Inpatient or outpatient status; and

• Geographic region.

We receive payment from the treatment facility for our products, and the Medicare reimbursement to the facility is intended to cover the overall cost of treatment, including the cost of products used during the procedure as well as the overhead cost associated with the facility where the procedure is performed. For procedures performed in hospitals, the physician who performs the procedure is reimbursed separately under the Medicare physician fee schedule. Claims for PAD procedures are typically submitted by the treatment facility and physician to Medicare or other health insurers using established billing codes. These codes identify the procedures performed and are relied upon to determine third-party payor reimbursement amounts.

Medicare reimbursement levels for inpatient PAD procedures for fiscal year 2018 went into effect as of October 1, 2017 and range between approximately \$10,000 and \$18,000. Medicare reimbursement for outpatient PAD procedures for 2018 went into effect on January 1, 2018 and range between approximately \$7,000 and \$16,000. These amounts include the cost of disposable catheters such as Ocelot and Pantheris. While reimbursement varies based on the type of procedure performed (i.e., angioplasty, stent or atherectomy), additional device-specific reimbursement is not available. The amount of reimbursement can vary substantially by geographical region and by facility. Payment rates of other third-party payors may follow Medicare rates, or they may be higher or lower, depending on their particular reimbursement methodology. Because of the wide variability, it is not possible to identify an average rate for third-party payors other than Medicare.

## **Employees**

As of June 30, 2018, we had 63 employees, including 17 in manufacturing and operations, 18 in sales and marketing, 10 in research and development and clinical and regulatory affairs, 2 in quality assurance and 8 in finance, general administrative and executive administration. None of our employees are represented by a labor union or are parties to a collective bargaining agreement and we believe that our employee relations are good.

## **Legal Proceedings**

Except as set forth below, we are not involved in any pending legal proceedings that we believe could have a material adverse effect on our financial condition, results of operations or cash flows. From time to time we may be involved in legal proceedings or investigations, which could harm our reputation, business and financial condition and divert the attention of our management from the operation of our business.

Between May 22, 2017 and May 25, 2017, three class actions were filed in the Superior Court of the State of California, County of San Mateo, or the State Court, against us and certain of our officers and directors. The underwriters of our IPO in January 2015 are also named as defendants. The actions were captioned Grotewiel v. Avinger, Inc., et al., No. 17-CIV-02240, Gonzalez v. Avinger, Inc., et al., No. 17-CIV-02284, and Olberding v. Avinger, Inc., et al., No. 17-CIV-02307. These lawsuits allege that the registration statement for our IPO made false and misleading statements and omissions in violation of the Securities Act of 1933. Plaintiffs seek to represent a class of purchasers of our common stock in and/or traceable to our IPO. Plaintiffs seek, among other things, unspecified compensatory damages, interest, costs, rescission, and attorneys' fees. On June 12, 2017, defendants removed these actions to the United States District Court for the Northern District of California, or Federal Court.

On June 22, 2017, and June 23, 2017, plaintiffs Olberding and Gonzalez moved to remand their cases to the State Court. Defendants opposed these motions. On July 21, 2017, the Federal Court granted the motions to remand the Olberding and Gonzalez actions to the State Court. On August 9, 2017, the State Court consolidated the Olberding and Gonzalez actions under the caption Gonzalez v. Avinger, Inc., et al., No. 17-CIV-02284, or State Action. On September 22, 2017, an amended complaint was filed in the State Action. On October 31, 2017, the parties in the State Action stipulated to a stay of proceedings until judgment is entered in the federal Grotewiel action, or Federal Action. On June 20, 2018, the State Court dismissed the State Action pursuant to the proposed settlement described below.



On October 11, 2017, the Federal Court appointed a lead plaintiff and approved the selection of a lead counsel in the Federal Action. On November 21, 2017, an amended complaint was filed in the Federal Action. Defendants filed a motion to dismiss that complaint on January 26, 2018. On March 19, 2018, plaintiff in the Federal Action filed a further amended complaint, on behalf of a class of purchasers of our common stock in and/or traceable to our IPO, as well as purchasers of our common stock during the period January 30, 2015, to April 10, 2017.

The Company and its directors believe that the foregoing lawsuits were without merit; however, in the interest of avoiding the cost and disruption of continuing to defend against these lawsuits, the Company entered into a settlement of the actions. The settlement is for a total of \$5 million. The Company's total contribution to the settlement fund is \$1.76 million, which the Company paid in March 2018. On October 24, 2018, the court approved the settlement.

### **Other Information**

We make available, free of charge on our corporate website, copies of our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, Proxy Statements, and all amendments to these reports, as soon as reasonably practicable after such material is electronically filed with or furnished to the Securities and Exchange Commission, or the SEC, pursuant to Section 13(a) or 15(d) of the Securities Exchange Act. We also show detail about stock trading by corporate insiders by providing access to SEC Forms 3, 4 and 5. This information may also be obtained from the SEC's on-line database, which is located at [www.sec.gov](http://www.sec.gov). Our common stock is traded on the Nasdaq Capital Market under the symbol "AVGR".

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012. As such, we are eligible for exemptions from various reporting requirements applicable to other public companies that are not emerging growth companies, including, but not limited to, not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002 and reduced disclosure obligations regarding executive compensation. We will remain an emerging growth company until the earlier of (1) December 31, 2019, (2) the last day of the fiscal year (a) in which we have total annual gross revenue of at least \$1.07 billion or (b) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds \$700 million as of the prior June 30th, and (3) the date on which we have issued more than \$1.0 billion in non-convertible debt securities during the prior three-year period.

## MANAGEMENT

### Executive Officers, Directors and Key Employees

The following table sets forth information, as of June 30, 2018, regarding our executive officers, directors and key employees.

<u>Name</u>	<u>Age</u>	<u>Title</u>
Jeffrey M. Soinski	56	President, Chief Executive Officer and Director
Mark Weinswig	45	Chief Financial Officer
Himanshu N. Patel	58	Chief Technology Officer
James G. Cullen(1)(2)(3)	75	Director and Chairman of the Board of Directors
Donald A. Lucas(1)(2)(3)	56	Director
James B. McElwee(1)(2)(3)	66	Director

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(1) Member of the audit committee.

(2) Member of the compensation committee.

(3) Member of the nominating and governance committee.

*James G. Cullen* has served as a member of our board of directors since December 2014, as our Lead Independent Director since January 2015 and as our Non-Executive Chairman since December 2017. During the last five years, Mr. Cullen has held board and committee positions with various companies. Mr. Cullen is currently a director of Agilent Technologies, Inc. Mr. Cullen previously served as a director and chairman of the audit committee of Johnson & Johnson and as a director and member of the investment and finance committees of Prudential Financial. From 1993 to 2000, Mr. Cullen was President, Vice Chairman and Chief Operating Officer of Bell Atlantic Corporation (now Verizon). From 1989 to 1993, he was President and Chief Executive Officer of Bell Atlantic-New Jersey. Mr. Cullen holds a B.A. in Economics from Rutgers University and an M.S. in Management Science from the Massachusetts Institute of Technology.

We believe Mr. Cullen is qualified to serve as a member of our board of directors because of his extensive experience serving on the boards of public companies as well as his financial and business expertise.

*Donald A. Lucas* has served as a member of our board of directors since 2013 and has been an investor in our company since 2011. Mr. Lucas has been a venture capitalist since 1985, having invested in companies such as Oracle, Macromedia and Cadence Design alongside his father Donald L. Lucas. Mr. Lucas has sourced or led investments in companies such as Intuitive Surgical, Coulter Pharmaceutical, Dexcom, Infinera, Signifyd, Obalon Therapeutics, Katerra, Bossa Nova Robotics, Filld, Berkeley Lights Inc, and Palantir. Mr. Lucas has served on the boards of Dexcom and the Silicon Valley Chapter of the JDRF and is a member of the UCSF Diabetes Center Leadership Council. Mr. Lucas holds a B.A. from Santa Clara University.

We believe Mr. Lucas is qualified to serve as a member of our board of directors because of his substantial corporate finance, business strategy and corporate development expertise gained from his significant experience in the venture capital industry, analyzing, investing in, serving on the boards of, and providing guidance to various technology companies.

*James B. McElwee* has served as a member of our board of directors since March 2011. Mr. McElwee has served as an independent venture capital investor since 2010. Mr. McElwee served as general partner of Weston Presidio, a private equity and venture capital firm, from 1992 to 2010. During his tenure as a general partner and member of the investment committee, Weston Presidio led the start up financing of JetBlue Airways and made investments in Fender Musical Instruments, The Coffee Connection, Guitar Center, Mapquest, Party City, Petzazz, RE/MAX, and others.

We believe Mr. McElwee is qualified to serve as a member of our board of directors because of his substantial corporate development and business strategy expertise gained in the venture capital industry.

*Jeffrey M. Soinski* has served as our President, Chief Executive Officer and a member of our Board of Directors since December 2014. From its formation in September 2009 until the acquisition of its Unisyn business by GE Healthcare in May 2013, Mr. Soinski served as Chief Executive Officer of Medical Imaging Holdings and its primary operating company Unisyn Medical Technologies, a national provider of technology-enabled products and services to the medical imaging industry. Mr. Soinski was a Director of Medical Imaging Holdings and its remaining operating company Consensus Imaging Service from September 2009 until its sale in October 2017. Mr. Soinski served periodically as a Special Venture Partner from July 2008 to June 2013 and as a Special Investment Partner since October 2016 for Galen Partners, a leading healthcare-focused private equity firm, which included Medical Imaging Holdings as one of its portfolio companies. From 2001 until its acquisition by C.R. Bard in 2008, Mr. Soinski was President and CEO of Specialized

Health Products International, a publicly-traded manufacturer and marketer of proprietary safety medical products. Mr. Soinski served as a consultant to BLOXR Corporation, a venture-backed medical device company, from October 2013 until September 2014. He served on the board of directors of Merriman Holdings, parent of Merriman Capital, a San Francisco-based investment banking and brokerage firm, from 2008 until March 2016. Mr. Soinski holds a B.A. degree from Dartmouth College.

We believe Mr. Soinski is qualified to serve as a member of our board of directors because of his extensive corporate finance and business strategy experience as well as his experience with public companies.

*Mark Weinswig* has served as our Chief Financial Officer since June 2018. From August 2017 to March 2018, Mr. Weinswig formerly served as the Chief Financial Officer of Aqua Metals, Inc., a heavy metal recycling company. From July 2016 to July 2017, Mr. Weinswig served as Chief Financial Officer of One Workplace, a designer and manufacturer of customized workspaces. From October 2010 to June 2016, Mr. Weinswig served as Chief Financial Officer of Emcore Corporation, a Nasdaq-listed designer and manufacturer of indium phosphide optical chips, components, subsystems and systems for the broadband and specialty fiber optics market. From September 2009 to October 2010, Mr. Weinswig served as International Finance Director at Coherent, Inc., a Nasdaq-listed designer and manufacturer of photonics solutions. Earlier in his career Mr. Weinswig worked at Morgan Stanley and PricewaterhouseCoopers. He received an M.B.A. from the University of Santa Clara and a B.S. in business administration with an accounting major from Indiana University. He has earned the CFA and CPA designations.

*Himanshu N. Patel* co-founded Avinger in 2007 and has served as our Chief Technology Officer from January 2011 to November 2011 and since October 2013. From September 1999 to February 2007, Mr. Patel held various research and development positions, including Director of Advanced Technologies, at FoxHollow Technologies. Mr. Patel previously held research and development positions at EndoTex Interventional Systems and General Surgical Innovations. Mr. Patel holds a B.S. in Mechanical Engineering from M.S. University of Baroda, India, and an M.S. in Mechanical Engineering from the University of Florida.

## **Director Independence**

Our common stock is listed on The Nasdaq Capital Market. Under the listing standards of The Nasdaq Stock Market, independent directors must comprise a majority of a listed company's board of directors. In addition, the listing standards of The Nasdaq Stock Market require that, subject to specified exceptions, each member of a listed company's audit, compensation, and nominating and corporate governance committees be independent. Under the listing standards of The Nasdaq Stock Market, a director will only qualify as an "independent director" if, in the opinion of that listed company's board of directors, that director does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

Audit committee members must also satisfy the additional independence criteria set forth in Rule 10A-3 under the Securities Exchange Act of 1934, as amended, or the Exchange Act, and the

listing standards of The Nasdaq Stock Market. Compensation committee members must also satisfy the additional independence criteria set forth in Rule 10C-1 under the Exchange Act and the listing standards of The Nasdaq Stock Market.

Our board of directors has undertaken a review of the independence of each of our directors. Based on information provided by each director concerning his or her background, employment and affiliations, our board of directors has determined that Messrs. Cullen, Lucas and McElwee do not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is “independent” as that term is defined under the listing standards of The Nasdaq Stock Market. In making these determinations, our board of directors considered the current and prior 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 the transactions involving them described in the section entitled “Related Person Transactions.”

#### **Board Leadership Structure and Lead Independent Director**

We believe that the structure of our board of directors and its committees provides strong overall management of our company. Our board of directors does not have a formal policy on whether the roles of Chief Executive Officer and Chairman of our board of directors should be separate. The Chairman of our board of directors and our Chief Executive Officer roles are separate, and our current Non-Executive Chairman, James G. Cullen, is independent under the listing standards of The Nasdaq Stock Market and thus also serves as our lead independent director.

Our Chief Executive Officer, Jeffrey M. Soinski, is responsible for setting the strategic direction of our company, the general management and operation of the business and the guidance and oversight of senior management. As lead independent director, Mr. Cullen is expected to preside over periodic meetings of our independent directors, to serve as a liaison between our Chief Executive Officer and the independent directors, and to perform such additional duties as our Board may otherwise determine and delegate. At the end of each board meeting, the independent directors are expected to meet in executive session, without Mr. Soinski present. Following each meeting, Mr. Cullen is expected to provide feedback to Mr. Soinski on his performance and the performance of our employees during the meeting and to recommend new agenda items for the next meeting.

### **Board Meetings and Committees**

During our fiscal year ended December 31, 2017, our board of directors held seventeen meetings (including regularly scheduled and special meetings), and each director attended at least 75% of the aggregate of (i) the total number of meetings of our board of directors held during the period for which he has been a director and (ii) the total number of meetings held by all committees of our board of directors on which he served during the periods that he served. Five of our directors attended our 2017 annual meeting of stockholders, either in person or telephonically.

Although we do not have a formal policy regarding attendance by members of our board of directors at annual meetings of stockholders, we strongly encourage our directors to attend.

Our board of directors has established an audit committee, a compensation committee and a nominating and corporate governance committee. The composition and responsibilities of each of the committees of our board of directors are described below. Members will serve on these committees until their resignation or until as otherwise determined by our board of directors.

#### ***Audit Committee***

Messrs. Lucas, McElwee and Cullen serve on our audit committee. Mr. Lucas serves as the chair of the audit committee. Our board of directors has assessed whether all members of the audit committee meet the composition requirements of The Nasdaq Stock Market, including the requirements regarding financial literacy and financial sophistication. Our board of directors found that Messrs. Lucas, McElwee and Cullen have met the financial literacy and financial sophistication requirements and that Messrs. Lucas, McElwee and Cullen are independent under

SEC and The Nasdaq Stock Market rules. In addition, our board of directors has determined that Mr. Cullen is an audit committee financial expert within the meaning of Item 407(d) of Regulation S-K under the Securities Act of 1933, as amended. The audit committee's primary responsibilities include:

- appointing, approving the compensation of, and assessing the qualifications and independence of our independent registered public accounting firm, which currently is Moss Adams LLP;

- reviewing and discussing with management and our independent registered public accounting firm our annual and quarterly financial statements and related disclosures;

- preparing the audit committee report required by SEC rules to be included in our annual proxy statements;

- monitoring our internal control over financial reporting, disclosure controls and procedures;

- reviewing our risk management status;

- establishing policies regarding hiring employees from our independent registered public accounting firm and procedures for the receipt and retention of accounting related complaints and concerns;

- meeting independently with our independent registered public accounting firm and management; and

- monitoring compliance with the code of business conduct and ethics for financial management.

All audit and non-audit services must be approved in advance by the audit committee. Our audit committee operates under a written charter that satisfies the applicable rules and regulations of the SEC and the listing standards of The Nasdaq Stock Market. A copy of the charter of our audit committee is available on our website at [www.avinger.com](http://www.avinger.com) under "Investors—Governance." During our fiscal year ended December 31, 2017, our audit committee held seven meetings.



### ***Compensation Committee***

Messrs. Lucas, Cullen and McElwee serve on our compensation committee. Mr. McElwee serves as the chair of the compensation committee. Each member of our compensation committee meets the requirements for independence for compensation committee members under the listing standards of The Nasdaq Stock Market and SEC rules and regulations, including Rule 10C-1 under the Exchange Act. Each member of our compensation committee is also a non-employee director, as defined pursuant to Rule 16b-3 promulgated under the Exchange Act, and an outside director, as defined pursuant to Section 162(m) of the Internal Revenue Code. Our compensation committee is responsible for, among other things:

- annually reviewing and approving corporate goals and objectives relevant to compensation of our chief executive officer and our other executive officers;

- determining the compensation of our chief executive officer and our other executive officers;

- reviewing and making recommendations to our board of directors with respect to director compensation; and

- overseeing and administering our equity incentive plans.

Our Chief Executive Officer and Chief Financial Officer make compensation recommendations for our other executive officers and initially propose the corporate and departmental performance objectives under our Executive Incentive Compensation Plan to the compensation committee. From time to time, the compensation committee may use outside compensation consultants to assist it in analyzing our compensation programs and in determining appropriate levels of compensation and benefits. For example, we have periodically engaged Radford, a business unit of Aon Hewitt, to help develop our compensation philosophy, select a group of peer companies to use for compensation benchmarking purposes and advise on cash and equity compensation levels for our directors, executives and other employees based on current market practices. Our compensation committee operates under a written charter that satisfies the applicable rules and regulations of the SEC and the listing standards of The Nasdaq Stock Market. A copy of the charter of our compensation committee is available on our website at [www.avinger.com](http://www.avinger.com) under “Investors—Governance.” During our fiscal year ended December 31, 2017, our compensation committee held two meetings.

### ***Nominating and Corporate Governance Committee***

Messrs. Lucas, Cullen and McElwee serve on our nominating and governance committee.

Mr. Cullen serves as the chair of the nominating and governance committee. Each member of our nominating and corporate governance committee meets the requirements for independence under the listing standards of The Nasdaq Stock Market and SEC rules and regulations. Our nominating and corporate governance committee is responsible for, among other things:

- identifying individuals qualified to become members of our board of directors;

- recommending to our board of directors the persons to be nominated for election as directors and to each of our board's committees;

- reviewing and making recommendations to our board of directors with respect to management succession planning;

- developing, updating and recommending to our board of directors corporate governance principles and policies; and

- overseeing the evaluation of our board of directors and committees.

Our nominating and corporate governance committee operates under a written charter that satisfies the applicable listing standards of The Nasdaq Stock Market. A copy of the charter of our nominating and corporate governance committee is available on our website at [www.avinger.com](http://www.avinger.com) under "Investors—Governance." During our fiscal year ended December 31, 2017, our nominating and corporate governance committee held no meetings.

### **Compensation Committee Interlocks and Insider Participation**

During the last fiscal year, Messrs. Cullen, Lucas, and McElwee served as members of our compensation committee. None of the members of our compensation committee is or has been an officer or employee of our company. None of our executive officers currently serves, or in the past year has served, as a member of the board of directors or compensation committee (or other board committee performing equivalent functions) of any entity that has one or more of its executive officers serving on our board of directors or compensation committee.

### **Considerations in Evaluating Director Nominees**

Our nominating and corporate governance committee uses a variety of methods for identifying and evaluating director nominees. In its evaluation of director candidates, our nominating and corporate governance committee will consider the current size and composition of our board of directors and the needs of our board of directors and the respective committees of our board of directors. Some of the qualifications that our nominating and corporate governance committee considers include, without limitation, issues of character, integrity, judgment, diversity of experience, independence, area of expertise, corporate experience, length of service, potential conflicts of interest and other commitments. Nominees must also have the ability to offer advice and guidance to our Chief Executive Officer based on past experience in positions with a high degree of responsibility and be leaders in the companies or institutions with which they are affiliated. Director candidates must have sufficient time available in the judgment of our nominating and corporate governance committee to perform all board of director and committee responsibilities. Members of our board of directors are expected to prepare for, attend and participate in all board of director and applicable committee meetings. Other than the foregoing, there are no stated minimum criteria for director nominees, although our nominating and corporate governance committee may also consider such other factors as it may deem, from time to time, are in our and our stockholders' best interests.

Although our board of directors does not maintain a specific policy with respect to board diversity, our board of directors believes that our board of directors should be a diverse body, and our nominating and corporate governance committee considers a broad range of backgrounds and experiences. In making determinations regarding nominations of directors, our nominating and corporate governance committee may take into account the benefits of diverse viewpoints. Our nominating and corporate governance committee also considers these and other factors as it oversees the annual board of director and committee evaluations. After completing its review and evaluation of director candidates, our nominating and corporate governance committee recommends to our full board of directors the director nominees for selection.

### **Stockholder Recommendations for Nominations to the Board of Directors**

Our nominating and corporate governance committee will consider candidates for director recommended by stockholders, so long as such recommendations comply with our amended and restated certificate of incorporation, amended and restated bylaws and applicable laws, rules and regulations, including those promulgated by the SEC. Our nominating and corporate governance committee will evaluate such recommendations in accordance with its charter, our amended and restated bylaws, our policies and procedures for director candidates, as well as the regular director nominee criteria described above. This process is designed to ensure that our board of directors includes members with diverse backgrounds, skills and experience, including appropriate financial and other expertise relevant to our business. Eligible stockholders wishing to recommend a

candidate for nomination should contact our Secretary in writing. Such recommendations must include information about the candidate, a statement of support by the recommending stockholder, evidence of the recommending stockholder's ownership of our common stock and a signed letter from the candidate confirming willingness to serve on our board of directors. Our nominating and corporate governance committee has discretion to decide which individuals to recommend for nomination as directors.

Under our amended and restated bylaws, stockholders may also nominate candidates for our board of directors. Any nomination must comply with the requirements set forth in our amended and restated bylaws and should be sent in writing to our Secretary at 400 Chesapeake Drive, Redwood City, California 94063. To be timely for our 2019 annual meeting of stockholders, our Secretary must receive the nomination no earlier than February 11, 2019 and no later than March 13, 2019.

### **Communications with the Board of Directors**

Interested parties wishing to communicate with our board of directors or with an individual member or members of our board of directors may do so by writing to our board of directors or to the particular member or members of our board of directors and mailing the correspondence to our Secretary at Avinger, Inc., 400 Chesapeake Drive, Redwood City, California 94063. Our Secretary, in consultation with appropriate members of our board of directors as necessary, will review all incoming communications and, if appropriate, all such communications will be forwarded to the appropriate member or members of our board of directors, or if none is specified, to the Executive Chairman of our board of directors.

### **Corporate Governance Guidelines and Code of Business Conduct**

We believe that good corporate governance is important to ensure that, as a public company, we will be managed for the long-term benefit of our stockholders. We and our board of directors have been reviewing the corporate governance policies and practices of other public companies, as well as those suggested by various authorities in corporate governance. We have also considered the provisions of the Sarbanes-Oxley Act and the rules of the SEC and The Nasdaq Stock Market.

Based on this review, our board of directors has taken steps to implement many of these provisions and rules. In particular, we have established charters for the audit committee, compensation committee and nominating and governance committee, as well as a code of business conduct that applies to all of our employees, officers and directors, including our Chief Executive Officer, Chief Financial Officer and other executive and senior financial officers. The full text of our code of business conduct is posted on the Corporate Governance portion of our website at [www.avinger.com](http://www.avinger.com) under “Investors—Governance.” We will post amendments to our code of business conduct or waivers of our code of business conduct for directors and executive officers on the same website.

### **Limitation on Liability and Indemnification Matters**

Our amended and restated certificate of incorporation contains provisions that limit the liability of our directors for monetary damages to the fullest extent permitted by Delaware law. Consequently, our directors are not personally liable to us or our stockholders for monetary damages for any breach of fiduciary duties as directors, except liability for:

- any breach of the director’s duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law; and
- any transaction from which the director derived an improper personal benefit.

Our amended and restated certificate of incorporation and amended and restated bylaws provide that we are required to indemnify our directors and officers, in each case to the fullest extent permitted by Delaware law. Our amended and restated bylaws also provide that we are obligated to advance expenses incurred by a director or officer in advance of the final disposition of any action or proceeding, and permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in that capacity regardless of whether we would otherwise be permitted to indemnify him or her under Delaware law. We have entered, and expect to continue to enter, into agreements to indemnify our directors, executive officers and other employees as determined by our board of directors. With specified exceptions, these agreements provide for indemnification for related expenses including, among other things, attorneys’ fees, judgments, fines and settlement amounts incurred by any of these individuals in any

action or proceeding. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain directors' and officers' liability insurance.

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 our directors and officers for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and our stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damages.

## **Risk Management**

Risk is inherent with every business, and we face a number of risks, including strategic, financial, business and operational, political, regulatory, legal and compliance, and reputational risk. We have designed and implemented processes to manage risk in our operations. Management is responsible for the day-to-day management of risks the company faces, while our board of directors, as a whole and assisted by its committees, has responsibility for the oversight of risk management. In its risk oversight role, our board of directors has the responsibility to satisfy itself that the risk management processes designed and implemented by management are appropriate and functioning as designed.

Our board of directors believes that open communication between management and our board of directors is essential for effective risk management and oversight. Our board of directors meets with our Chief Executive Officer and other members of the senior management team at quarterly meetings of our board of directors, where, among other topics, they discuss strategy and risks facing the company, as well as at such other times as they deem appropriate.

While our board of directors is ultimately responsible for risk oversight, our board committees assist our board of directors in fulfilling its oversight responsibilities in certain areas of risk. Our audit committee assists our board of directors in fulfilling its oversight responsibilities with respect to risk management in the areas of internal control over financial reporting and disclosure controls and procedures, legal and regulatory compliance, and discusses with management and the independent auditor guidelines and policies with respect to risk assessment and risk management. Our audit committee also reviews our major financial risk exposures and the steps management has taken to monitor and control these exposures. Our audit committee also monitors certain key risks on a regular basis throughout the fiscal year, such as risk associated with internal control over financial reporting and liquidity risk. Our nominating and corporate governance committee assists our board of directors in fulfilling its oversight responsibilities with respect to the management of risk associated with board organization, membership and structure, and corporate governance. Our compensation committee assesses risks created by the incentives inherent in our compensation policies. Finally, our full board of directors reviews strategic and operational risk in the context of reports from the management team, receives reports on all significant committee activities and evaluates the risks inherent in significant transactions.

## **Director Compensation**

Our board of directors approved our Outside Director Compensation Policy in January 2015 to compensate each non-employee director for his or her service, and amended it in August 2018. Our board of directors will have the discretion to revise non-employee director compensation as it deems necessary or appropriate. Under our Outside Director Compensation Policy, non-employee directors will receive compensation in the form of equity and cash, as described below:

*Cash Compensation.* All non-employee directors will be entitled to receive the following cash compensation for their services:

\$35,000 per year for service as a board member;

\$25,000 per year additionally for service as chairman of the board;

\$20,000 per year additionally for service as chairman of the audit committee;

\$10,000 per year additionally for service as an audit committee member;

\$15,000 per year additionally for service as chairman of the compensation committee;

\$7,500 per year additionally for service as a compensation committee member;

\$10,000 per year additionally for service as chairman of the nominating and corporate governance committee; and

\$5,000 per year additionally for service as a nominating and corporate governance committee member.

All cash payments to non-employee directors, or the Retainer Cash Payments, will be paid semiannually with the first semiannual installment payable on the date of our annual meeting of stockholders or, if no annual meeting occurs in a given year, May 1, and the second semiannual installment payable on November 1 of each year.

*Election to Receive Restricted Stock Units in Lieu of Cash Payments.* All non-employee directors may elect to convert a Retainer Cash Payment into restricted stock units with a grant date fair value equal to the applicable Retainer Cash Payment, or a Retainer Award. Each Retainer Award will be granted on the date that the applicable Retainer Cash Payment was scheduled to be paid, and the Retainer Award will vest and settle six months from the date of grant, subject to continued service as a director through the applicable vesting date. The Retainer Award will be subject to certain terms and conditions as described below under the section entitled “Equity Compensation.”

Elections to convert a Retainer Cash Payment into a Retainer Award must generally be made on or prior to December 31 of the year prior to the year in which the Retainer Cash Payment is scheduled to be paid, or such earlier deadline as is established by our board of directors or compensation committee. A newly appointed non-employee director will be permitted to elect to convert Retainer Cash Payments payable in the same calendar year into Retainer Awards, provided that such election is made prior to the date the individual becomes a non-employee director.



*Equity Compensation.* Nondiscretionary, automatic grants of restricted stock units will be made to our non-employee directors.

*Initial Award.* Each person who first becomes a non-employee director will be granted restricted stock units having a grant date fair value equal to \$115,000, or the Initial Award. The Initial Award will be granted on the date of the first meeting of our board of directors or compensation committee occurring on or after the date on which the individual first became a non-employee director. The shares underlying the Initial Award will vest and settle as to one thirty-sixth (1/36th) of the shares subject to such Initial Award on each monthly anniversary of the commencement of the non-employee director's service as a director, subject to the continued service as a director through the applicable vesting date.

*Annual Award.* On the date occurring once each calendar year on the same date that our board of directors grants annual equity awards to our senior executives, each non-employee director will be granted an restricted stock units covering a number of shares having a grant date fair value equal to \$75,000, or the Annual Award. All of the shares underlying the Annual Award will vest and settle one year from the date of grant, subject to continued service as a director through the applicable vesting date.

The exercise price per share of each award granted under our outside director compensation policy, including Retainer Awards, Initial Awards and Annual Awards, will be the fair market value of a share of our common stock, as determined in accordance with our 2015 Equity Incentive Plan, which we refer to as the 2015 Plan, on the date of the award.

Any restricted stock unit granted under our outside director compensation policy will fully vest and settle in the event of a change in control, as defined in our 2015 Plan, provided that the recipient remains a director through such change in control. Further, our 2015 Plan provides that in the event of a merger or change in control, as defined in our 2015 Plan, each outstanding equity award granted under our 2015 Plan that is held by a non-employee director will fully vest, all restrictions on the shares subject to such award will lapse and, with respect to awards with performance-based vesting, all performance goals or other vesting criteria will be deemed achieved at 100% of target levels, and all of the shares subject to such award will become fully exercisable, if applicable, provided such optionee remains a director through such merger or change in control.

#### *Compensation for Fiscal Year 2017*

The following table sets forth a summary of the compensation received by our non-employee directors who received compensation during our fiscal year ended December 31, 2017:

<b><u>Name</u></b>	<b>Fees Earned or Paid in Cash(1)</b>	<b>Option Awards(2)(3)</b>	<b>Total</b>
James G. Cullen	\$ 77,500	\$ 75,000	\$ 152,500
Thomas J. Fogarty	\$ —	\$ 115,000	\$ 115,000
Donald A. Lucas	\$ 67,500	\$ 75,000	\$ 142,500
James B. McElwee	\$ 65,000	\$ 75,000	\$ 140,000

(1) Dr. Fogarty elected to convert \$40,000 of his Retainer Cash Payments for 2017 into Retainer Options. Dr. Fogarty retired from our board of directors in August 2017.

(2) During 2017, all non-employee directors received an annual option grant, prior to the revision of the outside director compensation policy to provide for the grant of restricted stock units.

As of December 31, 2017, Messrs. Cullen, Lucas, McElwee and Dr. Fogarty had outstanding (3) options to purchase a total of 130,685, 124,093, 113,361 and no shares of our common stock, respectively.

Directors who are also our employees receive no additional compensation for their service as directors. During 2017, John B. Simpson, our founder and former Executive Chairman of our board of directors, and Jeffrey M. Soinski, our President, Chief Executive Officer and a director, were also our employees. See the section entitled “Executive Compensation—Fiscal 2017 Summary Compensation Table” for additional information about the compensation for Dr. Simpson and Mr. Soinski. Dr. Simpson resigned as director and Executive Chairman in December 2017.

## **Section 16(a) Beneficial Ownership Reporting Compliance**

Section 16(a) of the Exchange Act requires our directors, executive officers and holders of more than 10% of our common stock to file with the SEC reports regarding their ownership and changes in ownership of our securities. We believe that, during fiscal 2017, our directors, executive officers and 10% stockholders complied with all Section 16(a) filing requirements.

## **EXECUTIVE COMPENSATION**

### **Processes and Procedures for Compensation Decisions**

Our compensation committee is responsible for the executive compensation programs for our executive officers and reports to our board of directors on its discussions, decisions and other actions. Our compensation committee reviews and approves corporate goals and objectives relating to the compensation of our Chief Executive Officer, evaluates the performance of our Chief Executive Officer in light of those goals and objectives and determines and approves the compensation of our Chief Executive Officer based on such evaluation. Our compensation committee has the sole authority to determine our Chief Executive Officer's compensation. In addition, our compensation committee, in consultation with our Chief Executive Officer, reviews and approves all compensation for other officers, including the directors. Our Chief Executive Officer and Chief Financial Officer also make compensation recommendations for our other executive officers and initially propose the corporate and departmental performance objectives under our Executive Incentive Compensation Plan to the compensation committee.

The compensation committee is authorized to retain the services of one or more executive compensation and benefits consultants or other outside experts or advisors as it sees fit, in connection with the establishment of our compensation programs and related policies.

### **Fiscal 2017 Summary Compensation Table**

The following table presents summary information regarding the total compensation for services rendered in all capacities that was earned by our Chief Executive Officer and our two other most highly compensated executive officers in our fiscal year ended December 31, 2017. The individuals listed in the table below are our named executive officers for our fiscal year ended December 31,

2017.

<b><u>Name and Principal Position</u></b>	<b><u>Year</u></b>	<b><u>Salary</u></b> <b><u>(\$)</u></b>	<b><u>Bonus</u></b> <b><u>(\$)</u></b>	<b><u>Stock Awards</u></b> <b><u>(\$)(1)</u></b>	<b><u>Option Awards</u></b> <b><u>(\$)(1)</u></b>	<b><u>Non-Equity Incentive Plan Compensation</u></b> <b><u>(\$)</u></b>	<b><u>All Other Compensation</u></b> <b><u>(\$)</u></b>	<b><u>Total</u></b> <b><u>(\$)</u></b>
John B. Simpson, Ph.D., M.D.(2)	2017	363,500	—	61,500	67,161	—	232,500	724,661
<i>Executive Chairman</i>	2016	390,000	—	342,511	334,360	91,134	—	1,158,005
Jeffrey M. Soinski(3)	2017	390,000	—	61,500	67,161	—	3,000	521,661
<i>President and Chief Executive Officer</i>	2016	390,000	—	342,511	334,360	91,134	105,891	1,263,896
Matthew B. Ferguson (4)	2017	300,000	—	51,250	55,967	—	3,000	410,217
<i>Chief Financial Officer and Chief Business Officer</i>	2016	300,000	—	143,043	139,286	56,083	3,000	641,412

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The amounts reported represent the aggregate grant-date fair value of the stock options awarded to the named executive officer in 2016 and 2017, calculated in accordance with ASC Topic 718. Such grant-date fair value does not take into account any estimated forfeitures related to (1) service-vesting conditions. The assumptions used in calculating the grant-date fair value of the options reported in this column are set forth in the section of our Annual Report on Form 10-K entitled “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Estimates—Stock-Based Compensation.”

In 2017, the amounts reported in All Other Compensation for Dr. Simpson include a cash severance payment of \$195,000 and reimbursement for accrued paid time off of \$37,500. (2) Dr. Simpson resigned as a director and Executive Chairman from our board of directors and as an employee in December 2017.

The amounts reported for Mr. Soinski represent reimbursed relocation expenses, of \$102,891 for (3) 2016, pursuant to his employment offer letter and funds contributed to his health savings account of \$3,000 for each of 2016 and 2017.

(4) The amounts reported for Mr. Ferguson represent funds contributed to his health savings account of \$3,000 for each of 2016 and 2017. Mr. Ferguson resigned in June 2018.



## **Executive Employment Letters**

### ***Jeffrey M. Soinski***

We entered into an employment offer letter in December 2014 with Jeffrey M. Soinski, our President and Chief Executive Officer. The letter has no specific term and provides for at-will employment. The letter also provides that, in 2015, Mr. Soinski is eligible to receive an annual performance bonus of up to 40% of his annual salary based on the achievement of certain goals mutually agreed upon by him and our board of directors. Effective January 1, 2016, Mr. Soinski's annual base salary is \$390,000 and his target bonus percentage was increased from 40% to 50%.

Pursuant to Mr. Soinski's employment offer letter, if, within the 12-month period following a "change in control," we terminate Mr. Soinski's employment without "cause," or Mr. Soinski resigns for "good reason" (as such terms are defined in Mr. Soinski's employment offer letter), Mr. Soinski will receive accelerated vesting as to 100% of his outstanding unvested stock options. If we experience a change in control, and Mr. Soinski remains our employee through such date, Mr. Soinski will receive accelerated vesting as to 50% of his outstanding unvested stock options and/or restricted stock.

If we terminate Mr. Soinski without cause at any time, he will be entitled to receive 12 months of base salary and COBRA medical and dental insurance coverage, in each case payable in substantially equal installments in accordance with our payroll practices, as severance, in exchange for signing and not revoking a severance agreement and general release against us and our affiliates within 60 days following his termination of employment.

The letter provided that Mr. Soinski receive payments or reimbursements from us for up to \$30,000 of reasonable and documented expenses related to temporary lodging, travel, and commuting costs incurred by Mr. Soinski prior to August 2015 in connection with his transition from Utah to Redwood City, California, and reimbursements of up to \$100,000 related to the sale of Mr. Soinski's home in Utah and relocation to California. All relocation benefits owed to Mr. Soinski have been paid, as is more fully described above under "Fiscal 2017 Summary Compensation Table," and no further obligations exist under these provisions.

### ***Matthew B. Ferguson***

We entered into an employment offer letter in December 2010 with Matt Ferguson, our former Chief Financial Officer and Chief Business Officer. The letter has no specific term and provides for at-will employment. The letter did not provide for any bonus. Effective January 1, 2016, Mr. Ferguson's annual base salary was \$300,000. Mr. Ferguson resigned as director and Chief Financial Officer in June 2018. In connection with Mr. Ferguson's resignation, we and Mr. Ferguson entered into a Separation Agreement and Release, dated as of August 1, 2018, and a Consulting Agreement, dated as of August 1, 2018. Pursuant to the terms of the Separation Agreement, Mr. Ferguson will release all claims he may have against the Company and affirm his obligations regarding Company confidential information. As consideration for the release of claims, Mr. Ferguson's employment status at the time the Company pays bonuses for the first half of 2018 will not be considered with respect to his eligibility to receive such bonus payments. Pursuant to the Consulting Agreement, Mr. Ferguson will provide up to twenty hours per week of service to the Company during the period from August 1, 2018 to December 31, 2018, for which he will be entitled to receive total payments of \$62,500.

***Mark Weinswig***

We entered into an employment offer letter in June 2018 with Mark Weinswig, our Chief Financial Officer. The letter has no specific term and provides for at-will employment. Effective June 11, 2018, Mr. Weinswig's annual base salary is \$300,000. The letter also provides that Mr. Weinswig is eligible to receive a discretionary bonus of up to 40% of his base salary payable semi-annually based on the achievement of certain goals mutually agreed upon by him and our board of directors.

We also entered into a Change of Control and Severance Agreement in June 2018 with Mr. Weinswig. Pursuant to the Severance Agreement, if, within the 18-month period following a "change of control," we terminate Mr. Weinswig's employment without "cause," or Mr. Weinswig resigns for "good reason" (as such terms are defined in Mr. Weinswig's employment offer letter), Mr. Weinswig will receive accelerated vesting as to 100% of his outstanding unvested stock options and/or restricted stock.

**401(k) Plan**

We maintain a tax-qualified retirement plan that provides eligible employees with an opportunity to save for retirement on a tax advantaged basis. We may make a discretionary matching contribution to the 401(k) plan, and may make a discretionary employer contribution to each eligible employee each year. To date, we have not made any matching or profits sharing contributions into the 401(k) plan. All participants' interests in our matching and profit sharing contributions, if any, vest pursuant to a four-year graded vesting schedule from the time of contribution. Pre-tax contributions are allocated to each participant's individual account and are then invested in selected investment alternatives according to the participants' directions. The 401(k) plan is intended to qualify under Sections 401(a) and 501(a) of the Code. As a tax-qualified retirement plan, contributions to the 401(k) plan and earnings on those contributions are not taxable to the employees until distributed from the 401(k) plan, and all contributions are deductible by us when made.

**Pension Benefits and Nonqualified Deferred Compensation**

We do not provide a pension plan for our employees, and none of our named executive officers participated in a nonqualified deferred compensation plan in 2017.

**Outstanding Equity Awards at Fiscal Year-End**

The following table provides information regarding equity awards held by our named executive officers at December 31, 2017.

<u>Name</u>	<u>Grant Date</u>	<b>Option Awards</b>				<b>Stock Awards</b>	
		<b>Number of Securities Underlying Unexercised Options (#) Exercisable(3)</b>	<b>Number of Securities Underlying Unexercised Options (#) Unexercisable(3)</b>	<b>Option Exercise Price (\$)(4)</b>	<b>Option Expiration Date</b>	<b>Number of Shares or Units of Stock That Have</b>	<b>Market Value of Shares or Units of Stock That Have</b>



						Vested (#)	Not Vested (\$)(5)
John B. Simpson	5/1/2013(1)(6)	722	—	900.00	5/1/2018	—	—
	12/31/2014(1)(7)	15,280	—	198.00	12/31/2024	—	—
	3/7/2016(2)(7)	656	—	518.40	3/7/2026	—	—
Jeffrey M. Soinski	12/31/2014(1)(7)	15,484	—	180.00	12/31/2024	—	—
	3/7/2016(2)(7)	656	843	518.40	3/7/2026	—	—
	3/7/2016(2)(8)	—	—	—	—	562	4,046
	3/13/2017(2)(7)	—	1,500	82.00	3/13/2027	—	—
	3/13/2017(2)(8)	—	—	—	—	750	5,400
Matthew B. Ferguson	7/29/2011(1)(9)	849	—	504.00	7/29/2021	—	—
	5/1/2013(1)(6)	170	—	810.00	5/1/2023	—	—
	9/2/2014(1)	241	—	504.00	9/2/2019	—	—
	12/31/2014(1)(7)	2,387	—	180.00	12/31/2024	—	—
	3/3/2016(2)(7)	273	351	519.60	3/3/2026	—	—
	3/3/2016(2)(8)	—	—	—	—	234	1,685
	3/13/2017(2)(7)	—	1,250	82.00	3/13/2027	—	—
	3/13/2017(2)(8)	—	—	—	—	625	4,500

Each of the outstanding equity awards was granted pursuant to our 2009 Stock Plan. Effective as of January 29, 2015, no additional awards will be granted under the 2009 Stock Plan, and all (1) awards granted under the 2009 Stock Plan that are repurchased, forfeited, expire, are cancelled or otherwise not issued will become available for grant under the 2015 Plan in accordance with its terms.

(2) Each of the outstanding equity awards was granted pursuant to our 2015 Plan.

(3) All of our options granted pursuant to our 2009 Stock Plan are early exercisable subject to the Company's right to repurchase any unvested shares.

This column represents the fair value of a share of our common stock on the date of grant which, prior to our initial public offering in January 2015, was determined by our board of (4) directors. Subsequently, the fair value of our common stock is determined based on the closing price of our common stock, as reported on the Nasdaq Global Market or Nasdaq Capital Market, as applicable.

This column represents the market value of the unvested shares of our common stock (5) underlying the RSUs as of December 29, 2017, based on the closing price of our common stock, as reported on the Nasdaq Global Market, of \$7.20 per share.

25% of the shares of our common stock subject to this option vested on January 1, 2014, and the (6) balance vests in 36 successive equal monthly installments, subject to continued service through each such vesting date.

25% of the shares of our common stock subject to this option vested on the one year anniversary (7) of the grant date, and the balance vests in 36 successive equal monthly installments, subject to continued service through each such vesting date.

25% of the shares of our common stock subject to this option vested on the one year anniversary (8) of the grant date, and the balance vests in 3 successive equal annual installments, subject to continued service through each such vesting date.

25% of the shares of our common stock subject to this option vested on December 31, 2011, and (9) the balance vests in 36 successive equal monthly installments, subject to continued service through each such vesting date.

#### **Potential Payments upon Termination or Change of Control**

In March 2012, we entered into change of control and severance agreements with each of John B. Simpson and Matt Ferguson that superseded all previous severance and change of control arrangements we had entered into with these employees. Under each of these agreements, if, within the 18 month period following a “change of control,” we terminate the employment of the applicable employee other than for “cause,” death or disability, or the employee resigns for “good reason” (as such terms are defined in the employee’s employment agreement) and, within 60 days following the employee’s termination, the employee executes an irrevocable separation agreement and release of claims, the employee is entitled to receive (i) continuing payments of severance pay at a rate equal to the employee’s base salary and target bonus, as then in effect, for 12 months, (ii) reimbursement of premiums to maintain group health insurance continuation benefits pursuant to “COBRA” for employee and employee’s dependents for up to 12 months, (iii) accelerated vesting as to 100% of the employee’s outstanding unvested stock options and/or restricted stock, and (iv) the extension of the post-termination exercise period of any options held by the employee for a period of 1 year. Additionally, if we experience a change in control, 50% of the employee’s outstanding unvested stock options and/or restricted stock will vest. Dr. Simpson resigned as director and Executive Chairman in December 2017 and is no longer eligible for any change of control payments.

Potential payments upon termination or change of control for Mr. Soinski are described above, see the section entitled “Executive Employment Letters.”

## **Executive Incentive Compensation Plan**

Our board of directors has adopted an Executive Incentive Compensation Plan, or the Bonus Plan, that is administered by our compensation committee. The Bonus Plan allows our compensation committee to provide cash incentive awards to selected employees, including our named executive officers, based upon performance goals established by our compensation committee.

Under the Bonus Plan, our compensation committee determines the performance goals applicable to any award, which goals may include, without limitation: attainment of research and development milestones, sales bookings, business divestitures and acquisitions, cash flow, cash position, earnings (which may include any calculation of earnings, including but not limited to earnings before interest and taxes, earnings before taxes, earnings before interest, taxes, depreciation and amortization and net earnings), earnings per share, net income, net profit, net sales, operating cash flow, operating expenses, operating income, operating margin, overhead or other expense reduction, product defect measures, product release timelines, productivity, profit, return on assets, return on capital, return on equity, return on investment, return on sales, revenue, revenue growth, sales results, sales growth, stock price, time to market, total stockholder return, working capital, and individual objectives such as peer reviews or other subjective or objective criteria. Performance goals that include our financial results may be determined in accordance with GAAP or such financial results may consist of non-GAAP financial measures and any actual results may be adjusted by the compensation committee for one-time items or unbudgeted or unexpected items when performance goals that include our financial results may be determined in accordance with GAAP, or such financial results may consist of non-GAAP financial measures, and any actual results may be adjusted by the compensation committee for one-time items or unbudgeted or unexpected items when determining whether the performance goals have been met. The goals may be on the basis of any factors the compensation committee determines relevant, and may be adjusted on an individual, divisional, business unit or company-wide basis. The performance goals may differ from participant to participant and from award to award.

Our compensation committee may, in its sole discretion and at any time, increase, reduce or eliminate a participant's actual award, and/or increase, reduce or eliminate the amount allocated to the bonus pool for a particular performance period. The actual award may be below, at or above a participant's target award, in the compensation committee's discretion. Our compensation committee may determine the amount of any reduction on the basis of such factors as it deems relevant, and it is not required to establish any allocation or weighting with respect to the factors it considers.

Actual awards are paid in cash only after they are earned, which usually requires continued employment through the date a bonus is paid. Our compensation committee has the authority to amend, alter, suspend or terminate the Bonus Plan provided such action does not impair the existing rights of any participant with respect to any earned bonus.

### Equity Compensation Plan Information

All of our equity compensation plans have been approved by our stockholders, except our Officer and Director Share Purchase Plan adopted in August 2018. The following table provides information as of December 31, 2017, with respect to the shares of our common stock that may be issued under our existing equity compensation plans. The following table does not reflect (i) annual “evergreen” increases to our 2015 Plan and 2015 Employee Stock Purchase Plan on January 1, 2018, (ii) the reservation of an additional 3,000,000 shares of common stock under the 2015 Plan following our 2018 annual meeting of stockholders or (iii) the adoption of our Officer and Director Share Purchase Plan in August 2018.

<b><u>Plan Category</u></b>	<b>(a) Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights</b>	<b>(b) Weighted Average Exercise Price of Outstanding Options, Warrants and Rights(2)</b>	<b>(c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))</b>
Equity compensation plans approved by stockholders(1)	135,448	\$ 379.19	88,736

(1) Includes the following plans: our 2009 Stock Plan, our 2015 Plan and our 2015 Employee Stock Purchase Plan. Our 2015 Plan provides that on the first day of each fiscal year commencing in fiscal year 2016, the number of shares authorized for issuance under the 2015 Plan is automatically increased by a number equal to the lesser of (i) 42,250 shares of common stock, (ii) 5.0% of the aggregate number of shares of common stock outstanding on the last day of the preceding fiscal year, or (iii) such number of shares that may be determined by our board of directors. Our 2015 Employee Stock Purchase Plan provides that on the first day of each fiscal

year commencing in fiscal year 2016 the number of shares authorized for issuance under our 2015 Employee Stock Purchase Plan is automatically increased by a number equal to the lesser of (i) 12,325 shares of common stock, (ii) 1.5% of the aggregate number of shares of common stock outstanding on such date, or (iii) an amount determined by our board of directors or a duly authorized committee of our board of directors.

- (2) The weighted average exercise price does not take into account outstanding restricted stock, or RSUs, which have no exercise price.

## SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information with respect to the beneficial ownership of our capital stock as of September 30, 2018 for:

• each person or group of affiliated persons known by us to be the beneficial owner of more than 5% of our common stock;

• each of our named executive officers;

• each of our directors; and

• all of our current executive officers and directors as a group.

We have determined beneficial ownership in accordance with the rules and regulations of the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Except as indicated by the footnotes below, we believe, based on information furnished to us, that the persons and entities named in the table below have sole voting and sole investment power with respect to all shares of our capital stock that they beneficially own, subject to applicable community property laws.

Applicable percentage ownership is based on 11,554,149 shares of our common stock outstanding as of September 30, 2018. In computing the number of shares of capital stock beneficially owned by a person and the percentage ownership of such person, we deemed to be outstanding all shares of our capital stock subject to options held by the person that are currently exercisable or exercisable within 60 days of September 30, 2018. However, we did not deem such shares of our capital stock outstanding for the purpose of computing the percentage ownership of any other person.

Unless otherwise indicated, the address of each beneficial owner listed in the table below is c/o Avinger, Inc., 400 Chesapeake Drive, Redwood City, California 94063. The information provided in the table is based on our records, information filed with the SEC and information provided to us, except where otherwise noted.

<u>Name of Beneficial Owner</u>	Shares Beneficially	
	Owned Number of Shares	Percentage
<b>Named Executive Officers and Directors</b>		
Jeffrey M. Soinski <sup>(1)</sup>	21,577	*
Mark Weinswig <sup>(2)</sup>	1,456	*
James G. Cullen <sup>(3)</sup>	6,058	*
Donald A. Lucas <sup>(4)</sup>	3,680	*
James B. McElwee <sup>(5)</sup>	3,346	*
All executive officers and directors as a group (6 individuals) <sup>(6)</sup>	45,679	*

\* Represents ownership of less than 1%

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(1) Consists of (i) 4,469 shares directly owned and (ii) 17,108 shares of common stock upon exercise of options exercisable within 60 days of September 30, 2018.

(2) Consists of 1,456 shares directly owned.

Consists of (i) 1,845 shares of common stock held by Gilbert Investments, LLC, (ii) warrants to purchase 621 shares of common stock held by Gilbert Investments, LLC, (iii) 327 shares held by 2000 James Cullen Generation Skipping Family Trust and (iv) 3,265 shares of common stock issuable upon exercise of options exercisable within 60 days of September 30, 2018. Mr. Cullen has sole voting and dispositive power with respect to shares held by Gilbert Investments, LLC and James Cullen Generation Skipping Family Trust. Mr. Cullen does not have a pecuniary interest in the James Cullen Generation Skipping Family Trust and disclaims beneficial ownership in Gilbert Investments, LLC except to the extent of his pecuniary interest therein.

Consists of (i) 580 shares of common stock held of record by Lucas Venture Group III, LP and (4)(ii) 3,100 shares of common stock issuable upon exercise of options exercisable within 60 days of September 30, 2018.

Consists of (i) 377 shares of common stock held of record by Mr. McElwee, (ii) warrants to (5) purchase 138 shares of common stock and (iii) 2,831 shares issuable upon exercise of options exercisable within 60 days of September 30, 2018.

Consists of (i) 12,995 shares of common stock outstanding, and (ii) warrants to purchase 759 (6) shares of common stock and (iii) 31,925 shares issuable upon exercise of options exercisable within 60 days of September 30, 2018.



## DESCRIPTION OF SECURITIES

The following description summarizes the most important terms of our capital stock and the securities we are offering and does not purport to be complete and is qualified in its entirety by the provisions of our amended and restated certificate of incorporation and amended and restated bylaws, which documents are incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and the applicable provisions of the Delaware General Corporation Law, or the DGCL.

### Units

We are offering 2,702,702 Class A Units, with each Class A Unit consisting of one share of common stock and a warrant to purchase one share of our common stock at an exercise price per share of \$ , together with the shares of common stock underlying such warrants, at an assumed public offering price of \$1.11 per Class A Unit. The Class A Units will not be certificated and the shares of common stock and warrants part of such units are immediately separable and will be issued separately in this offering.

We are also offering to those purchasers whose purchase of Class A Units in this offering would result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding common stock following the consummation of this offering, the opportunity to purchase, in lieu of the number of Class A Units that would result in ownership in excess of 4.99% (or, at the election of the purchaser, 9.99%), 7,000 Class B Units. Each Class B Unit consists of one share of Series C preferred stock, par value \$0.001 per share, convertible into 901 shares of common stock and a warrant to purchase 901 shares of our common stock at an exercise price per share of \$ , together with the shares of common stock underlying such shares of Series C preferred stock and warrants, at an assumed public offering price of \$ 1,000 per Class B Unit and an assumed Series C preferred stock conversion price of \$1.11 per share. The Class B Units will not be certificated and the shares of Series C preferred stock and the warrants part of such units are immediately separable and will be issued separately in this offering.

## **Description of Capital Stock**

Our authorized capital stock consists of 100,000,000 shares of common stock, \$0.001 par value per share, and 5,000,000 shares of preferred stock, \$0.001 par value per share. Of our 5,000,000 shares of authorized preferred stock, 60,000 shares have been designated as Series A preferred stock, 18,000 have been designated as Series B preferred stock, 7,000 have been designated as Series C preferred stock and the remainder are as-yet undesignated.

### **Common Stock**

#### *Outstanding Shares*

On June 30, 2018, there were 9,305,872 shares of common stock outstanding, held of record by 175 stockholders. Our board of directors is authorized, without stockholder approval, to issue additional shares of our capital stock.

As of June 30, 2018, there were 17,742,215 shares of common stock subject to outstanding warrants and 84,842 shares of common stock subject to outstanding options.

#### *Dividend Rights*

Subject to preferences that may be applicable to any then outstanding preferred stock, holders of our common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds. We have never declared or paid cash dividends on any of our capital stock and currently do not anticipate paying any cash dividends after this offering or in the foreseeable future.

#### *Voting Rights*

There are 100,000,000 shares of common stock authorized for issuance. Pursuant to our amended and restated certificate of incorporation, each holder of our common stock is entitled to one vote for each share on all matters submitted to a vote of stockholders; provided, however, that, except as otherwise required by law, holders of our common stock, as such, shall not be entitled to vote on any amendment to our amended and restated certificate of incorporation that relates solely to the terms of one or more outstanding series of preferred stock if the holders of such affected series are entitled, either separately or together with the holders of one or more other such series, to vote thereon pursuant to our amended and restated certificate of incorporation. Pursuant to our amended and restated certificate of incorporation and amended and restated bylaws, corporate actions can generally be taken by a majority of our board and/or stockholders holding a majority of our outstanding shares, except as otherwise indicated in the section entitled “Anti-takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws,” where certain amendments to our amended and restated certificate of incorporation and amended and restated bylaws require the vote of at least 66<sup>2</sup>/<sub>3</sub>% of our then outstanding voting securities. Additionally, our stockholders do not have cumulative voting rights in the election of directors. Accordingly, holders of a plurality of the votes cast at a meeting of stockholders will be able to elect all of the directors then standing for election.

#### *Right to Receive Liquidation Distributions*

In the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any then outstanding shares of preferred stock.

#### *Rights and Preferences*

Holders of our common stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to, and may be adversely affected by, the rights of the holders of our outstanding preferred stock and shares of any series of our preferred stock that we may designate in the future.

#### *Fully Paid and Nonassessable*

All of our outstanding shares of common stock are, and the shares of common stock to be issued pursuant to this offering, when paid for, will be fully paid and nonassessable.



## Preferred Stock

Under our restated certificate of incorporation, we have authority, subject to any limitations prescribed by law and without further stockholder approval, to issue from time to time up to 5,000,000 shares (less any Series A preferred stock and Series B preferred stock issued) of preferred stock, par value \$0.001 per share, in one or more series. As of June 30, 2018, 60,000 shares of preferred stock were designated Series A preferred stock, 18,000 shares of preferred stock were designated Series B preferred stock and no shares of preferred stock were designated Series C preferred stock. As of June 30, 2018, 41,800 shares of Series A preferred stock were issued and outstanding and 1,701 shares of Series B preferred stock were issued and outstanding.

Pursuant to our restated certificate of incorporation, we are authorized to issue “blank check” preferred stock, which may be issued from time to time in one or more series upon authorization by our board of directors. Our board of directors, without further approval of the stockholders, is authorized to fix the designation, powers, preferences, relative, participating optional or other special rights, and any qualifications, limitations and restrictions applicable to each series of the preferred stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes could, among other things, adversely affect the voting power or rights of the holders of our common stock and, under certain circumstances, make it more difficult for a third party to gain control of us, discourage bids for our common stock at a premium or otherwise adversely affect the market price of the common stock.

## Series A Preferred Stock

The preferences and rights of the Series A preferred stock are as set forth in a Certificate of Designation of Series A preferred stock, or the Series A Certificate of Designation, filed as Exhibit 3.1 to our Current Report on Form 8-K, filed with the SEC on February 23, 2018. The following is a summary of the material terms of our Series A Preferred stock and is qualified in its entirety by the Series A Certificate of Designation. Please refer to the Series A Certificate of Designation for more information on the preferences, rights and limitations of Series A preferred stock.

*Liquidation.* Upon any dissolution, liquidation or winding up, whether voluntary or involuntary, holders of Series A preferred stock will be entitled to receive distributions out of our assets, whether capital or surplus, of the greater of (i) an amount equal to \$1,000 per share plus accrued and unpaid dividends thereon or (ii) such amount as would be payable if the Series A preferred stock had been converted to common stock. Amounts payable to the Series A preferred stock upon any dissolution, liquidation or winding up are payable prior and in preference to the payment of

any amounts to the holders of Series B preferred stock or common stock.

*Dividends.* Holders of the Series A preferred stock are entitled to receive accruing dividends of 8% per annum, which dividends are cumulative and annually compounded. The holders of Series A preferred stock will be entitled to receive an amount equal (on an “as converted to common stock” basis) to and in the same form as dividends actually paid on shares of our common stock when, as and if such dividends are paid on shares of our common stock. We have an option to pay the Series A preferred stock’s accruing dividend in additional shares of Series A preferred stock.

*Conversion.* Each share of Series A preferred stock is convertible, at any time and from time to time at the option of the holder thereof, into that number of shares of common stock determined by dividing \$1,000 by the conversion price of \$2.00 (subject to adjustment as described below). This right to convert is limited by the beneficial ownership limitation described below.

In connection with this offering, CRG has agreed to suspend the conversion of its Series A convertible preferred stock into common stock until such time as our stockholders have approved an amended and restated certificate of incorporation authorizing at least 125 million shares of common stock. We have created a Certificate of Amendment to the Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock, in the form filed as Exhibit 3.7 to the registration statement of which this prospectus forms a part, for filing with the Secretary of State for the state of Delaware to effect this change. Following the filing of this amendment, the Company has agreed to call a meeting of the Company’s stockholders on or before June 30, 2019, and to use reasonable best efforts (including the hiring of a proxy solicitor), to obtain approval from the stockholders of the Company for an amended and restated certificate of incorporation that increases the number of authorized shares to at least 125 million shares (or such larger number of shares as is necessary) in order to allow for the conversion of the outstanding Series A convertible preferred stock into common stock. In this regard, the Company shall include approval of an amended and restated certificate of incorporation as a proposal to be voted on by the stockholders in such stockholders meeting. If such proposal is not approved in the next stockholders meeting the Company shall include a similar proposal on its agenda for following stockholders meetings and continue to use reasonable best efforts to obtain its approval until such proposal is approved.

*Forced Conversion.* Beginning on January 1, 2019, if the Company’s average market capitalization is at least \$100,000,000 both (i) on a given date, based on the closing price and number of shares outstanding and (ii) for the prior quarter, based on the volume-weighted average closing price during such quarter and number of shares outstanding on the last day of such quarter, the Series A preferred stock is subject to mandatory conversion (subject to the beneficial ownership limitation below).

*Beneficial Ownership Limitation.* A holder shall have no right to convert any portion of Series A preferred stock, to the extent that, after giving effect to such conversion, such holder, together with such holder's affiliates, and any persons acting as a group together with such holder or any such affiliate, would beneficially own in excess of 4.99% (or, upon election by a holder any higher or lower percentage) of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock upon such conversion. A holder of Series A preferred stock may adjust the percentage of the beneficial ownership upon not less than 61 days prior notice. Beneficial ownership of the holder and its affiliates will be determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder. Holders of Series B preferred stock who are subject to such beneficial ownership limitation are and will remain responsible for ensuring their own compliance with Regulation 13D-G promulgated under the Securities Exchange Act of 1934, as amended, consistent with their individual facts and circumstances. In addition, pursuant to Rule 13d-3(d)(1)(i) promulgated under the Securities Exchange Act of 1934, as amended, any person who acquires Series A preferred stock with the purpose or effect of changing or influencing the control of our company, or in connection with or as a participant in any transaction having such purpose or effect, immediately upon such acquisition will be deemed to be the beneficial owner of the underlying common stock.

*Optional Redemption.* Subject to the terms of the certificate of designation, the Company holds an option to redeem some or all the Series A preferred stock for the amount per share otherwise payable upon a liquidation, dissolution or winding up of the Company, upon 30 days prior written notice to the holder of the Series A preferred stock.

*Stock Dividends and Stock Splits.* If we pay a stock dividend or otherwise make a distribution payable in shares of common stock on shares of common stock or any other common stock equivalents, subdivide or combine outstanding common stock, or reclassify common stock, the conversion price will be adjusted by multiplying the then effective conversion price by a fraction, the numerator of which shall be the number of shares of common stock (including shares issuable upon conversion of the Series B preferred stock) outstanding immediately before such event, and the denominator of which shall be the number of shares outstanding immediately after such event (assuming conversion of the Series B preferred stock).

*Fundamental Transaction.* In the event we consummate a merger or consolidation with or into another person or other reorganization event in which our common stock is converted or exchanged for securities, cash or other property, or we sell, lease, license, assign, transfer, convey or otherwise dispose of all or substantially all of our assets or we or another person acquire 50% or more of our outstanding shares of common stock, then following such event, the holders of the Series A preferred stock will be entitled to receive upon conversion of the Series A preferred stock the same kind and amount of securities, cash or property which the holders would have received had they converted the Series A preferred stock immediately prior to such fundamental transaction. Any successor to us or surviving entity shall assume the obligations under the Series A preferred stock.

*Voting Rights, etc.* Except as otherwise provided in the Series A Certificate of Designation or required by law, the Series A preferred stock has no voting rights. However, as long as any shares of Series A preferred stock are outstanding, we may not, without the affirmative vote of the holders of a majority of the then outstanding shares of the Series A preferred stock, (i) liquidate, dissolve, or wind up the Company; (ii) alter or amend the certificate of incorporation, Series A Certificate of Designation or bylaws of the Company in a manner adverse to the Series A preferred stock; (iii) create or amend the terms of any securities so as to create, securities pari passu or senior to the Series A preferred stock; (iv) purchase, redeem or make any dividend upon shares of capital stock other than certain limited exceptions; or (v) issue any additional Series A preferred stock.

*Fractional Shares.* No fractional shares of common stock will be issued upon conversion of Series A preferred stock. Rather, we shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the fair market value of a share of common stock.



The Series A preferred stock was issued in book-entry form under a preferred stock agent agreement between American Stock Transfer & Trust as preferred stock agent, and us, and was initially represented by one or more book-entry certificates deposited with The Depository Trust Company, or DTC, and registered in the name of Cede & Co., a nominee of DTC, or as otherwise directed by DTC. There is no established public trading market for the Series A preferred stock and we do not expect a market to develop. We do not plan on applying to list the Series A preferred stock on The Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system.

The transfer agent for our Series A preferred stock is American Stock Transfer & Trust Company, LLC.

### **Series B Preferred Stock**

The preferences and rights of the Series B preferred stock are as set forth in a Certificate of Designation of Series B preferred stock, or the Series B Certificate of Designation, filed as Exhibit 3.2 to our Current Report on Form 8-K, filed with the SEC on February 23, 2018. The following is a summary of the material terms of our Series B Preferred stock and is qualified in its entirety by the Series B Certificate of Designation. Please refer to the Series B Certificate of Designation for more information on the preferences, rights and limitations of Series B preferred stock.

*Liquidation.* Upon any dissolution, liquidation or winding up, whether voluntary or involuntary, holders of Series B preferred stock will be entitled to receive distributions out of our assets, whether capital or surplus, of an amount equal to \$0.001 per share of Series B preferred stock before any distributions shall be made on the common stock or any series of preferred stock ranked junior to the Series B preferred stock, but after distributions shall be made on any outstanding Series A preferred stock and any of our existing or future indebtedness.

*Dividends.* Holders of the Series B preferred stock will be entitled to receive dividends equal (on an “as converted to common stock” basis) to and in the same form as dividends actually paid on shares of our common stock when, as and if such dividends are paid on shares of our common stock. No other dividends will be paid on shares of Series B preferred stock.

*Conversion.* Each share of Series B preferred stock is convertible, at any time and from time to time at the option of the holder thereof, into that number of shares of common stock determined by dividing \$1,000 by the conversion price of \$1.58 (subject to adjustment as described below). This right to convert is limited by the beneficial ownership limitation described below.

*Forced Conversion.* Subject to certain ownership limitations as described below and certain equity conditions being met, until such time that during any 30 consecutive trading days, the volume weighted average price of our common stock exceeds 300% of the conversion price and the daily dollar trading volume during such period exceeds \$500,000 per trading day, we shall have the right to force the conversion of the Series B preferred stock into common stock.

*Beneficial Ownership Limitation.* A holder shall have no right to convert any portion of Series B preferred stock, to the extent that, after giving effect to such conversion, such holder, together with such holder’s affiliates, and any persons acting as a group together with such holder or any such affiliate, would beneficially own in excess of 4.99% (or, upon election by a holder prior to the issuance of any shares of Series B preferred stock, 9.99%) of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock upon such conversion (subject to the right of the holder to increase such beneficial ownership limitation upon not less than 61 days prior notice provided that such limitation can never exceed 9.99% and such 61 day period cannot be waived). Beneficial ownership of the holder and its affiliates will be determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder. Holders of Series B preferred stock who are subject to such beneficial ownership limitation are and will remain responsible for ensuring their own compliance with Regulation 13D-G promulgated under the Securities Exchange Act of 1934, as amended, consistent with their individual facts and circumstances. In addition, pursuant to Rule 13d-3(d)(1)(i) promulgated under the Securities Exchange Act of 1934, as amended, any person who acquires Series B preferred stock with the purpose or effect of changing or influencing the control of our company, or in connection with or as a participant in any transaction having such purpose or effect, immediately upon such acquisition will be deemed to be the beneficial owner of the underlying common stock.

*Optional Redemption.* Subject to the terms of the certificate of designation, the Company holds an option to redeem some or all the Series B preferred stock six months after its issuance date at a 200% premium to the stated value of the Series B preferred stock subject to the redemption, upon 30 days prior written notice to the holder of the Series B preferred stock. The Series B preferred

stock would be redeemed by the Company for cash.

*Subsequent Equity Sales.* The Series B preferred stock has full-ratchet price based anti-dilution protection, subject to customary carve outs, in the event of a down-round financing at a price per share below the conversion price of the Series B preferred stock. If during any 20 of 30 consecutive trading days the volume weighted average price of our common stock exceeds 300% of the then-effective conversion price of the Series B preferred stock and the daily dollar trading volume for each trading day during such 30 day period exceeds \$500,000, the anti-dilution protection in the Series B preferred stock will expire and cease to apply.

*Stock Dividends and Stock Splits.* If we pay a stock dividend or otherwise make a distribution payable in shares of common stock on shares of common stock or any other common stock equivalents, subdivide or combine outstanding common stock, or reclassify common stock, the conversion price will be adjusted by multiplying the then conversion price by a fraction, the numerator of which shall be the number of shares of common stock outstanding immediately before such event, and the denominator of which shall be the number of shares outstanding immediately after such event.

*Fundamental Transaction.* In the event we consummate a merger or consolidation with or into another person or other reorganization event in which our common stock is converted or exchanged for securities, cash or other property, or we sell, lease, license, assign, transfer, convey or otherwise dispose of all or substantially all of our assets or we or another person acquire 50% or more of our outstanding shares of common stock, then following such event, the holders of the Series B preferred stock will be entitled to receive upon conversion of the Series B preferred stock the same kind and amount of securities, cash or property which the holders would have received had they converted the Series B preferred stock immediately prior to such fundamental transaction. Any successor to us or surviving entity shall assume the obligations under the Series B preferred stock.

*Voting Rights, etc.* Except as otherwise provided in the Series B Certificate of Designation or required by law, the Series B preferred stock has no voting rights. However, as long as any shares of Series B preferred stock are outstanding, we may not, without the affirmative vote of the holders of a majority of the then outstanding shares of the Series B preferred stock, alter or change adversely the powers, preferences or rights given to the Series B preferred stock, amend the Series B Certificate of Designation, amend our certificate of incorporation or other charter documents in any manner that adversely affects any rights of the holders, increase the number of authorized shares of Series B preferred stock, or enter into any agreement with respect to any of the foregoing. The Series B Certificate of Designation provides that if any party commences an action or proceeding to enforce any provisions thereunder, then the prevailing party in such action or proceeding shall be reimbursed by the other party for its attorneys' fees and other costs and expenses incurred in the investigation, preparation and prosecution of such action or proceeding. This provision may, under certain circumstances, be inconsistent with federal securities laws and Delaware general corporation law.

*Fractional Shares.* No fractional shares of common stock will be issued upon conversion of Series B preferred stock. Rather, we shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the conversion price.

The Series B preferred stock was issued in book-entry form under a preferred stock agent agreement between American Stock Transfer & Trust as preferred stock agent, and us, and was initially represented by one or more book-entry certificates deposited with The Depository Trust Company, or DTC, and registered in the name of Cede & Co., a nominee of DTC, or as otherwise directed by DTC. There is no established public trading market for the Series B preferred stock and we do not expect a market to develop. We do not plan on applying to list the Series B preferred stock on The Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system.

The transfer agent for our Series B preferred stock is American Stock Transfer & Trust Company, LLC.

### **Series C Preferred Stock Included in the Class B Units**

The preferences and rights of the Series C preferred stock are as set forth in a Certificate of Designation of Series C preferred stock, or the Series C Certificate of Designation, filed as Exhibit 3.1 to this prospectus. The following is a summary of the material terms of our Series C Preferred stock and is qualified in its entirety by the Series C Certificate of Designation. Please refer to the Series C Certificate of Designation for more information on the preferences, rights and

limitations of Series C preferred stock.

*Liquidation.* Upon any dissolution, liquidation or winding up, whether voluntary or involuntary, holders of Series C preferred stock will be entitled to receive distributions out of our assets, whether capital or surplus, of an amount equal to \$0.001 per share of Series C preferred stock before any distributions shall be made on the common stock or any series of preferred stock ranked junior to the Series C preferred stock, but after distributions shall be made on any outstanding Series A preferred stock and any of our existing or future indebtedness.

*Dividends.* Holders of the Series C preferred stock will be entitled to receive dividends equal (on an as-converted-to-common-stock basis) to and in the same form as dividends actually paid on shares of our common stock when, as and if such dividends are paid on shares of our common stock. No other dividends will be paid on shares of Series C preferred stock.

*Conversion.* Each share of Series C preferred stock is convertible, at any time and from time to time at the option of the holder thereof, into that number of shares of common stock determined by dividing \$        by the assumed conversion price of \$1.11 (subject to adjustment as described below). This right to convert is limited by the beneficial ownership limitation described below.

*Forced Conversion.* Subject to certain ownership limitations as described below and certain equity conditions being met, until such time that during any 30 consecutive trading days, the volume weighted average price of our common stock exceeds 300% of the conversion price and the daily dollar trading volume during such period exceeds \$500,000 per trading day, we shall have the right to force the conversion of the Series C preferred stock into common stock.

*Beneficial Ownership Limitation.* A holder shall have no right to convert any portion of Series C preferred stock, to the extent that, after giving effect to such conversion, such holder, together with such holder's affiliates, and any persons acting as a group together with such holder or any such affiliate, would beneficially own in excess of 4.99% (or, upon election by a holder prior to the issuance of any shares of Series C preferred stock, 9.99%) of the number of shares of common stock outstanding immediately after giving effect to the issuance of shares of common stock upon such conversion (subject to the right of the holder to increase such beneficial ownership limitation upon not less than 61 days prior notice provided that such limitation can never exceed 9.99% and such 61 day period cannot be waived). Beneficial ownership of the holder and its affiliates will be determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder. Holders of Series C preferred stock who are subject to such beneficial ownership limitation are and will remain responsible for ensuring their own compliance with Regulation 13D-G promulgated under the Securities Exchange Act of 1934, as amended, consistent with their individual facts and circumstances. In addition, pursuant to Rule 13d-3(d)(1)(i) promulgated under the Securities Exchange Act of 1934, as amended, any person who acquires Series C preferred stock with the purpose or effect of changing or influencing the control of our company, or in connection with or as a participant in any transaction having such purpose or effect, immediately upon such acquisition will be deemed to be the beneficial owner of the underlying common stock.

*Stock Dividends and Stock Splits.* If we pay a stock dividend or otherwise make a distribution payable in shares of common stock on shares of common stock or any other common stock equivalents, subdivide or combine outstanding common stock, or reclassify common stock, the conversion price will be adjusted by multiplying the then conversion price by a fraction, the numerator of which shall be the number of shares of common stock outstanding immediately before such event, and the denominator of which shall be the number of shares outstanding immediately after such event.

*Fundamental Transaction.* In the event we consummate a merger or consolidation with or into another person or other reorganization event in which our common stock is converted or exchanged for securities, cash or other property, or we sell, lease, license, assign, transfer, convey or otherwise dispose of all or substantially all of our assets or we or another person acquire 50% or more of our outstanding shares of common stock, then following such event, the holders of the Series C preferred stock will be entitled to receive upon conversion of the Series C preferred stock the same kind and amount of securities, cash or property which the holders would have received had they converted the Series C preferred stock immediately prior to such fundamental transaction. Any successor to us or surviving entity shall assume the obligations under the Series C preferred stock.

*Voting Rights, etc.* Except as otherwise provided in the Series C Certificate of Designation or required by law, the Series C preferred stock has no voting rights. However, as long as any shares of Series C preferred stock are outstanding, we may not, without the affirmative vote of the holders of a majority of the then outstanding shares of the Series C preferred stock, alter or change

adversely the powers, preferences or rights given to the Series C preferred stock, amend the Series C Certificate of Designation, amend our certificate of incorporation or other charter documents in any manner that adversely affects any rights of the holders, increase the number of authorized shares of Series C preferred stock, or enter into any agreement with respect to any of the foregoing. The Series C Certificate of Designation provides that if any party commences an action or proceeding to enforce any provisions thereunder, then the prevailing party in such action or proceeding shall be reimbursed by the other party for its attorneys' fees and other costs and expenses incurred in the investigation, preparation and prosecution of such action or proceeding. This provision may, under certain circumstances, be inconsistent with federal securities laws and Delaware general corporation law.

*Fractional Shares.* No fractional shares of common stock will be issued upon conversion of Series C preferred stock. Rather, we shall pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the conversion price.

The Series C preferred stock will be issued in book-entry form under a preferred stock agent agreement between American Stock Transfer & Trust as preferred stock agent, and us, and will initially be represented by one or more book-entry certificates deposited with The Depository Trust Company, or DTC, and registered in the name of Cede & Co., a nominee of DTC, or as otherwise directed by DTC. There is no established public trading market for the Series C preferred stock and we do not expect a market to develop. We do not plan on applying to list the Series C preferred stock on The Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system.

The transfer agent for our Series C preferred stock is American Stock Transfer & Trust Company, LLC.

### **Description of Warrants Included in the Units**

The material terms and provisions of the warrants being offered pursuant to this prospectus are summarized below. This summary of some provisions of the warrants is not complete. For the complete terms of the warrants, you should refer to the form of warrant filed as an exhibit to the registration statement of which this prospectus forms a part. Pursuant to a warrant agency agreement between us and American Stock Transfer & Trust Company, LLC, as warrant agent, the warrants will be issued in book-entry form and shall initially be represented only by one or more global warrants deposited with the warrant agent, as custodian, on behalf of The Depository Trust Company, or DTC, and registered in the name of Cede & Co., a nominee of DTC, or as otherwise directed by DTC.

Each Class A Unit includes a warrant to purchase one share of our common stock and each Class B Unit issued in this offering includes a warrant to purchase 901 shares of our common stock at an exercise price equal to \$     per share at any time for up to five years after the date of the closing of this offering. The warrants issued in this offering will be governed by the terms of a global warrant held in book-entry form. The holder of a warrant will not be deemed a holder of our underlying common stock until the warrant is exercised.

Subject to certain limitations as described below the warrants are immediately exercisable upon issuance on the closing date and expire on the five year anniversary of the closing date. Subject to limited exceptions, a holder of warrants will not have the right to exercise any portion of its warrants if the holder (together with such holder's affiliates, and any persons acting as a group together with such holder or any of such holder's affiliates) would beneficially own a number of shares of common stock in excess of 4.99% (or, at the election of the purchaser prior to the date of issuance, 9.99%) of the shares of our common stock then outstanding after giving effect to such exercise.

The exercise price and the number of shares issuable upon exercise of the warrants is subject to appropriate adjustment in the event of recapitalization events, stock dividends, stock splits, stock combinations, reclassifications, reorganizations or similar events affecting our common stock. The warrant holders must pay the exercise price in cash upon exercise of the warrants, unless such warrant holders are utilizing the cashless exercise provision of the warrants. On the expiration date,



unexercised warrants will automatically be exercised via the “cashless” exercise provision.

In addition, in the event we consummate a merger or consolidation with or into another person or other reorganization event in which our common shares are converted or exchanged for securities, cash or other property, or we sell, lease, license, assign, transfer, convey or otherwise dispose of all or substantially all of our assets or we or another person acquire 50% or more of our outstanding shares of common stock, then following such event, the holders of the warrants will be entitled to receive upon exercise of such warrants the same kind and amount of securities, cash or property which the holders would have received had they exercised their warrants immediately prior to such fundamental transaction. Any successor to us or surviving entity shall assume the obligations under the warrants. Additionally, as more fully described in the warrants, in the event of certain fundamental transactions, the holders of the warrants will be entitled to receive consideration in an amount equal to the Black Scholes value of the warrants on the date of consummation of such transaction.

Upon the holder’s exercise of a warrant, we will issue the shares of common stock issuable upon exercise of the warrant within two trading days following our receipt of a notice of exercise, provided that payment of the exercise price has been made (unless exercised via the “cashless” exercise provision). Prior to the exercise of any warrants to purchase common stock, holders of the warrants will not have any of the rights of holders of the common stock purchasable upon exercise, including the right to vote, except as set forth therein.

Warrant holders may exercise warrants only if the issuance of the shares of common stock upon exercise of the warrants is covered by an effective registration statement, or an exemption from registration is available under the Securities Act and the securities laws of the state in which the holder resides. We intend to use commercially reasonable efforts to have the registration statement, of which this prospectus forms a part, effective when the warrants are exercised. The warrant holders must pay the exercise price in cash upon exercise of the warrants unless there is not an effective registration statement or, if required, there is not an effective state law registration or exemption covering the issuance of the shares underlying the warrants (in which case, the warrants may only be exercised via a “cashless” exercise provision).

The warrants are callable by us in certain circumstances. Subject to certain exceptions, in the event that the warrants are outstanding, if, after the closing date, (i) the volume weighted average price of our common stock for each of 30 consecutive trading days, or the Measurement Period, which Measurement Period commences on the closing date, exceeds 300% of the exercise price (subject to adjustment for forward and reverse stock splits, recapitalizations, stock dividends and similar transactions after the initial exercise date), (ii) the average daily trading volume for such Measurement Period exceeds \$500,000 per trading day and (iii) certain other equity conditions are met, and subject to the Beneficial Ownership Limitation, then we may, within one trading day of the end of such Measurement Period, upon notice, or a Call Notice, call for cancellation of all or any portion of the warrants for which a notice of exercise has not yet been delivered, or a Call, for consideration equal to \$0.001 per warrant share. Any portion of a warrant subject to such Call Notice for which a notice of exercise shall not have been received by the Call Date (as hereinafter defined) will be canceled at 6:30 p.m. (New York City time) on the tenth trading day after the date the Call Notice is sent by the Company (such date and time, the Call Date). Our right to call the warrants shall be exercised ratably among the holders based on the then outstanding warrants. We do not intend to apply for listing of the warrants on any securities exchange or other trading system.

### Outstanding Warrants

Prior to this offering, as of June 30, 2018 (on a pro forma basis to give effect to our July 2018 financing), we had outstanding warrants to purchase common stock as follows:

	<b>Total Outstanding and Exercisable</b>	<b>Exercise price per Share</b>	<b>Expiration Date</b>
Series 1 Warrants issued in February 2018 financing	8,979,500	\$ 2.00	February, 2025
Series 2 Warrants issued in February 2018 financing	8,709,500	\$ 2.00	February, 2025
Warrants issued in July 2018 financing	1,083,091	\$ 1.58	July, 2021

### Certain Effects of Authorized but Unissued Stock

We have shares of common stock and preferred stock available for future issuance without stockholder approval. We may issue these additional shares for a variety of corporate purposes, including future public or private offerings to raise additional capital or to facilitate corporate acquisitions or for payment as a dividend on our capital stock. The existence of unissued and unreserved preferred stock may enable our board of directors to issue shares of preferred stock with terms that could render more difficult or discourage a third-party attempt to obtain control of us by

means of a merger, tender offer, proxy contest or otherwise, thereby protecting the continuity of our management. In addition, if we issue additional preferred stock, the issuance could adversely affect the voting power of holders of common stock and the likelihood that holders of common stock will receive dividend payments or payments upon liquidation.

### **Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws**

The provisions of Delaware law, our amended and restated certificate of incorporation and our amended and restated bylaws may have the effect of delaying, deferring or discouraging another person from acquiring control of our company. These provisions, which are summarized below, may have the effect of discouraging takeover bids. They are also designed, in part, to encourage persons seeking to acquire control of us to negotiate first with our board of directors. We believe that the benefits of increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquirer outweigh the disadvantages of discouraging a proposal to acquire us because negotiation of these proposals could result in an improvement of their terms.

#### *Delaware Law*

We are governed by the provisions of Section 203 of the DGCL. In general, Section 203 prohibits a public Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. A “business combination” includes mergers, asset sales or other transactions resulting in a financial benefit to the stockholder. An “interested stockholder” is a person who, together with affiliates and associates, owns, or within three years of the date on which it is sought to be determined whether such person is an “interested stockholder,” did own, 15% or more of the corporation’s outstanding voting stock. These provisions may have the effect of delaying, deferring or preventing a change in our control.

*Amended and Restated Certificate of Incorporation and Amended and Restated Bylaw Provisions*

Our amended and restated certificate of incorporation and our amended and restated bylaws include a number of provisions that could deter hostile takeovers or delay or prevent changes in control of our management team, including the following:

*Board of directors vacancies.* Our amended and restated certificate of incorporation and amended and restated bylaws authorize only our board of directors to fill vacant directorships, including newly created seats. In addition, the number of directors constituting our board of directors is permitted to be set only by a resolution adopted by our board of directors. These provisions prevent a stockholder from increasing the size of our board of directors and then gaining control of our board of directors by filling the resulting vacancies with its own nominees. This makes it more difficult to change the composition of our board of directors but promotes continuity of management.

*Classified board.* Our amended and restated certificate of incorporation and amended and restated bylaws provide that our board is classified into three classes of directors. A third party may be discouraged from making a tender offer or otherwise attempting to obtain control of us as it is more difficult and time consuming for stockholders to replace a majority of the directors on a classified board of directors.

*Stockholder action; special meeting of stockholders.* Our amended and restated certificate of incorporation provides that our stockholders may not take action by written consent, but may only take action at annual or special meetings of our stockholders. As a result, a holder controlling a majority of our capital stock may not be able to amend our amended and restated bylaws or remove directors without holding a meeting of our stockholders called in accordance with our amended and restated bylaws. Our amended and restated bylaws further provide that special meetings of our stockholders may be called only by our board of directors, the Chairman of our Board of Directors, our Chief Executive Officer or our President, thus prohibiting a stockholder from calling a special meeting. These provisions might delay the ability of our stockholders to force consideration of a proposal or for stockholders controlling a majority of our capital stock to take any action, including the removal of directors.

*Advance notice requirements for stockholder proposals and director nominations.* Our amended and restated bylaws provide advance notice procedures for stockholders seeking to bring business before our annual meeting of stockholders or to nominate candidates for election as directors at our annual meeting of stockholders. Our amended and restated bylaws also specify certain requirements regarding the form and content of a stockholder's notice. These provisions might preclude our stockholders from bringing matters before our annual meeting of stockholders or from making nominations for directors at our annual meeting of stockholders if the proper procedures are not followed. We expect that these provisions may also discourage or deter a

potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of our company.

*No cumulative voting.* The DGCL provides that stockholders are not entitled to the right to cumulate votes in the election of directors unless a corporation's certificate of incorporation provides otherwise. Our amended and restated certificate of incorporation does not provide for cumulative voting.

*Directors removed only for cause.* Our amended and restated certificate of incorporation provides that stockholders may remove directors only for cause.

*Amendment of charter provisions.* Any amendment of the above provisions in our amended and restated certificate of incorporation would require approval by holders of at least 66 2/3% of the voting power of our then outstanding voting securities.

*Issuance of undesignated preferred stock.* Our board of directors has the authority, without further action by the stockholders, to issue up to 5,000,000 shares of undesignated preferred stock (less any shares of Series A preferred stock, Series B preferred stock and Series C preferred shares already issued) with rights and preferences, including voting rights, designated from time to time by our board of directors. The existence of authorized but unissued shares of preferred stock would enable our board of directors to render more difficult or to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or other means.

### **Transfer Agent and Registrar**

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC. The transfer agent and registrar's address is 6201 15th Avenue, Brooklyn, NY 11219. Our shares of common stock are issued in uncertificated form only, subject to limited circumstances.

### **Market Listing**

Our common stock is listed on the Nasdaq Capital Market under the symbol "AVGR".

## UNDERWRITING

We have entered into an underwriting agreement dated \_\_\_\_\_ with Ladenburg Thalmann & Co. Inc., as the underwriter and the sole book-running manager of this offering. Subject to the terms and conditions of the underwriting agreement, the underwriter has agreed to purchase the number of our securities set forth opposite its name below.

	Class	Class
Underwriter	A	B
	Units	Units
Ladenburg Thalmann & Co. Inc.		
Total		

A copy of the underwriting agreement will be filed as an exhibit to the registration statement of which this prospectus is part.

We have been advised by the underwriter that they propose to offer the securities directly to the public at the public offering price set forth on the cover page of this prospectus. Any securities sold by the underwriter to securities dealers will be sold at the public offering price less a selling concession not in excess of \$ \_\_\_\_\_ per share and \$ \_\_\_\_\_ per warrant.

The underwriting agreement provides that subject to the satisfaction or waiver by the representative of the conditions contained in the underwriting agreement, the underwriter is obligated to purchase and pay for all of the securities offered by this prospectus.

No action has been taken by us or the underwriter that would permit a public offering of the units in any jurisdiction outside the United States where action for that purpose is required. None of our securities included in this offering may be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sales of any of the securities offered hereby be distributed or published in any jurisdiction except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons who receive this prospectus are advised to inform themselves about and to observe any restrictions relating to this offering of securities and the distribution of this prospectus. This prospectus is neither an offer to sell nor a solicitation of any offer to buy the securities in any jurisdiction where that would not be permitted or legal.

The underwriter has advised us that they do not intend to confirm sales to any account over which they exercise discretionary authority.

## Underwriting Discount and Expenses

The following table summarizes the underwriting discount and commission to be paid to the underwriter by us.

	Class A Units	Class B Units	Total
Public offering price			
Underwriting discount to be paid to the underwriter by us			
Proceeds to us (before expenses)			

We estimate the total expenses payable by us for this offering to be approximately \$      which amount includes (i) the underwriting discount of \$      , (ii) reimbursement of the accountable expenses of the representative equal to \$      including the legal fees of the representative being paid by us and (iii) other estimated company expenses of approximately \$      which includes legal accounting printing costs and various fees associated with the registration of our securities.

## Determination of Offering Price

Our common stock is currently traded on the Nasdaq Capital Market under the symbol "AVGR." On      , 2018 the closing price of our common stock was \$      per share. We do not intend to apply for listing of the Series C Preferred Stock or warrants on any securities exchange or other trading system.

The public offering price of the securities offered by this prospectus will be determined by negotiation between us and the underwriter. Among the factors considered in determining the public offering price of the shares of preferred stock and warrants were:

- our history and our prospects;
- the industry in which we operate;
- our past and present operating results;
- the previous experience of our executive officers; and
- the general condition of the securities markets at the time of this offering.

The offering price stated on the cover page of this prospectus should not be considered an indication of the actual value of the securities sold in this offering. That price is subject to change as a result of market conditions and other factors and we cannot assure you that the shares of Series C preferred stock and warrants sold in this offering can be resold at or above the public offering price.

### **Lock-up Agreements**

Our officers, directors and each of their respective affiliates and associated persons have agreed with the representative to be subject to a lock-up period of ninety (90) days following the date of this prospectus. This means that, during the applicable lock-up period, such persons may not offer for sale, contract to sell, sell, distribute, grant any option, right or warrant to purchase, pledge, hypothecate or otherwise dispose of, directly or indirectly, any shares of our common stock or any securities convertible into, or exercisable or exchangeable for, shares of our common stock. Certain limited transfers are permitted during the lock-up period if the transferee agrees to these lock-up restrictions.

We have also agreed, in the underwriting agreement, to similar lock-up restrictions on the issuance and sale of our securities for 90 days following the closing of this offering, although we will be permitted to issue stock options or stock awards to directors, officers and employees under our existing plans. The lock-up period is subject to an additional extension to accommodate for our reports of financial results or material news releases. The representative may, in its sole discretion and without notice, waive the terms of any of these lock-up agreements.

### **Other Relationships**



Upon completion of this offering, we have granted the representative a right of first refusal to act as lead bookrunner, lead placement agent or financial advisor in connection with any subsequent public or private offering of equity securities or other capital markets financing by us. This right of first refusal extends until February 16, 2019. The terms of any such engagement of the representative will be determined by separate agreement.

### **Stabilization, Short Positions and Penalty Bids**

The underwriter may engage in stabilizing transactions for the purpose of pegging, fixing or maintaining the price of our common stock. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specific maximum. These stabilizing transactions may have the effect of raising or maintaining the market prices of our securities or preventing or retarding a decline in the market prices of our securities. As a result the price of our common stock may be higher than the price that might otherwise exist in the open market. Neither we nor the underwriter make any representation or prediction as to the effect that stabilizing transactions may have on the price of our common stock. These transactions may be effected on the Nasdaq Capital Market, in the over-the-counter market or on any other trading market and, if commenced, may be discontinued at any time.

In connection with this offering, the underwriter also may engage in passive market making transactions in our common stock in accordance with Regulation M. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for that security. However, if all independent bids are lowered below the passive market maker's bid that bid must then be lowered when specific purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

Neither we, nor the underwriter make any representations or predictions as to the direction or magnitude of any effect that the transactions described above may have on the prices of our securities. In addition, neither we nor the underwriter make any representations that the underwriter will engage in these transactions or that any transactions, once commenced will not be discontinued without notice.

### **Indemnification**

We have agreed to indemnify the underwriter against certain liabilities, including certain liabilities arising under the Securities Act or to contribute to payments that the underwriter may be required to make for these liabilities.



## **CERTAIN MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS**

The following is a general discussion of certain material U.S. federal income considerations relating to the purchase, ownership and disposition of our common stock. This discussion is based on current provisions of the Internal Revenue Code of 1986, as amended, or the Internal Revenue Code, existing and proposed U.S. Treasury Regulations promulgated or proposed thereunder and current administrative and judicial interpretations thereof, all as in effect as of the date of this prospectus and all of which are subject to change or to differing interpretation, possibly with retroactive effect. We have not sought and will not seek any rulings from the Internal Revenue Service, or the IRS, or opinion of counsel, regarding the matters discussed below. There can be no assurance that the IRS or a court will not take a contrary position.

This discussion is limited to U.S. holders and non-U.S. holders who hold our common stock as a capital asset within the meaning of Section 1221 of the Internal Revenue Code (generally, as property held for investment). This discussion does not address all aspects of U.S. federal income taxation, such as the U.S. alternative minimum income tax and the additional tax on net investment income, nor does it address any aspect of state, local or non-U.S. taxes, or U.S. federal taxes other than income taxes, such as federal estate taxes. This discussion does not consider any specific facts or circumstances that may apply to a holder and does not address the special tax considerations that may be applicable to particular holders, such as:

insurance companies;

tax-exempt organizations;

banks or other financial institutions;

brokers or dealers in securities;

regulated investment companies or mutual funds;

pension plans;

controlled foreign corporations;

passive foreign investment companies;

- persons that own (directly, indirectly or constructively) more than 5% of our common stock;

corporations that accumulate earnings to avoid U.S. federal income tax;

certain former citizens or long-term residents of the United States;

persons that have a “functional currency” other than the U.S. dollar;

persons that acquire our stock or warrants as compensation for services;

owners that hold our stock or warrants as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment; and

partnerships or other entities treated as partnerships for U.S. federal income tax purposes.

If any entity taxable as a partnership for U.S. federal income tax purposes holds our common stock, the U.S. federal income tax treatment of a partner in the partnership generally will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. A partner in a partnership or other transparent entity that holds our common stock should consult his, her or its own tax advisor regarding the applicable tax consequences.

For purposes of this discussion, the term “U.S. holder” means a beneficial owner of our common stock that is, for U.S. federal income tax purposes:

an individual who is a citizen or resident of the United States;

a corporation created or organized in or under the laws of the United States, any state thereof or the District of Columbia;

an estate the income of which is subject to U.S. federal income taxation regardless of its source; or

- a trust, if (1) a U.S. court is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have authority to control all substantial decisions of the trust or (2) the trust has a valid election to be treated as a U.S. person under applicable U.S. Treasury Regulations.

A “non-U.S. holder” is a beneficial owner of our common stock that is neither a U.S. holder nor a partnership (or other entity treated as a partnership for U.S. federal income tax purposes).

**Prospective investors should consult their own tax advisors regarding the U.S. federal, state, local and non-U.S. income and other tax considerations of purchasing, holding and disposing of our common stock.**

## **U.S. Holders**

### ***Distributions on Common Stock***

If we pay distributions of cash or property with respect to our common stock, those distributions generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the U.S. holder’s investment, up to such holder’s tax basis in its shares of our common stock. Any remaining excess will be treated as capital gain, subject to the tax treatment described below under the heading “—Gain on Sale, Exchange or Other Taxable Disposition.”

Dividends we pay to a U.S. holder that is a taxable corporation generally will qualify for the dividends received deduction if the requisite holding period is satisfied. With certain exceptions (including, but not limited to, dividends treated as investment income for purposes of investment interest deduction limitations), and provided certain holding period requirements are met, dividends we pay to a non-corporate U.S. holder generally will constitute “qualified dividends” that will be subject to tax at the maximum tax rate accorded to long-term capital gains.

***Gain on Sale, Exchange or Other Taxable Disposition***

Upon the sale or other taxable disposition of common shares, a U.S. holder generally will recognize capital gain or loss in an amount equal to the difference between (a) the amount of cash plus the fair market value of any property received and (b) such U.S. holder's tax basis in such common shares sold or otherwise disposed of. Such gain or loss generally will be long-term capital gain or loss if, at the time of the sale or other disposition, the common shares have been held by the U.S. holder for more than one year. Preferential tax rates may apply to long-term capital gain of a U.S. holder that is an individual, estate, or trust. Deductions for capital losses are subject to significant limitations.

**Non-U.S. Holders**

***Distributions on Common Stock***

If we pay distributions of cash or property with respect to our common stock, those distributions generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the non-U.S. holder's investment, up to such holder's tax basis in its shares of our common stock. Any remaining excess will be treated as capital gain, subject to the tax treatment described below under the heading "—Gain on Sale, Exchange or Other Taxable Disposition." Dividends paid to a non-U.S. holder generally will be subject to withholding of U.S. federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence. In the case of any constructive distribution, it is possible that this tax would be withheld from any amount owed to the non-U.S. holder, including, but not limited to, distributions of cash, common stock or sales proceeds subsequently paid or credited to that holder. If we are unable to determine, at the time of payment of a distribution, whether the distribution will constitute a dividend, we may nonetheless choose to withhold any U.S. federal income tax on the distribution as permitted by U.S. Treasury Regulations.

Distributions that are treated as effectively connected with a trade or business conducted by a non-U.S. holder within the United States are generally not subject to the 30% withholding tax if the non-U.S. holder provides a properly executed IRS Form W-8ECI stating that the distributions are not subject to withholding because they are effectively connected with the non-U.S. holder's conduct of a trade or business in the United States. If a non-U.S. holder is engaged in a trade or business in the United States and the distribution is effectively connected with the conduct of that trade or business, the distribution will generally have the consequences described above for a U.S. holder (subject to any modification provided under an applicable income tax treaty). Any U.S. effectively connected income received by a non-U.S. holder that is treated as a corporation for U.S. federal income tax purposes may also, under certain circumstances, be subject to an additional "branch profits tax" at a 30% rate (or such lower rate as may be specified by an applicable income tax treaty).

A non-U.S. holder who claims the benefit of an applicable income tax treaty between the United States and such holder's country of residence generally will be required to provide a properly executed IRS Form W-8BEN or W-8BEN-E, as applicable, and satisfy applicable certification and other requirements. A non-U.S. holder that is eligible for a reduced rate of U.S. withholding tax under an income tax treaty generally may obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim with the IRS. Non-U.S. holders should consult their own tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

### ***Gain on Sale, Exchange or Other Taxable Disposition***

Subject to the discussion below in "—Information Reporting and Backup Withholding" and "—Foreign Account Tax Compliance Act," a non-U.S. holder generally will not be subject to U.S. federal income tax on gain recognized on a sale, exchange or other taxable disposition of our common stock unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States and, if an applicable income tax treaty so provides, the gain is attributable to a permanent establishment maintained by the non-U.S. holder in the United States; in these cases, the non-U.S. holder will be taxed on a net income basis at the regular graduated rates and in the manner applicable to a U.S. holder, and, if the non-U.S. holder is a corporation, an additional branch profits tax at a rate of 30%, or a lower rate as may be specified by an applicable income tax treaty, may also apply;

- the non-U.S. holder is an individual present in the United States for 183 days or more in the taxable year of the disposition and certain other conditions are met, in which case the non-U.S. holder will be subject to a 30% tax (or such lower rate as may be specified by an applicable

income tax treaty) on the amount by which such non-U.S. holder's capital gains allocable to U.S. sources exceed capital losses allocable to U.S. sources during the taxable year of the disposition; or

our common stock constitutes "U.S. real property interests" by reason of our being or having been a "U.S. real property holding corporation" during the shorter of the five-year period ending on the date of the disposition or the period that the non-U.S. holder held our common stock, Series B preferred stock or warrants. Generally, a domestic corporation is a "U.S. real property holding corporation" if the fair market value of its "U.S. real property interests" (within the meaning of the Internal Revenue Code) equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. We believe that we are not currently, and we do not anticipate becoming, a "U.S. real property holding corporation" for U.S. federal income tax purposes. However, because the determination of whether we are a U.S. real property holding corporation depends on the fair market value of our U.S. real property interests relative to the fair market value of our U.S. and worldwide real property interests plus our other business assets, there can be no assurance that we will not become a U.S. real property holding corporation in the future. Even if we become a U.S. real property holding corporation, as long as our common stock is regularly traded on an established securities market, common stock held by a non-U.S. holder will be treated as U.S. real property interests only if such non-U.S. holder actually (directly or indirectly) or constructively holds more than five percent of such regularly traded common stock at any time during the shorter of the five-year period preceding such non-U.S. holder's disposition of, or holding period for, our common stock.

## Information Reporting and Backup Withholding

Distributions on, and the payment of the proceeds of a disposition of, our common stock generally will be subject to information reporting if made within the United States or through certain U.S.-related financial intermediaries. Information returns are required to be filed with the IRS and copies of information returns may be made available to the tax authorities of the country in which a holder resides or is incorporated under the provisions of a specific treaty or agreement.

Backup withholding may also apply if the holder fails to provide certification of exempt status or a correct U.S. taxpayer identification number and otherwise comply with the applicable backup withholding requirements. Generally, a holder will not be subject to backup withholding if it provides a properly completed and executed IRS Form W-9 or appropriate IRS Form W-8, as applicable. Backup withholding is not an additional tax. Amounts withheld under the backup withholding rules may be refunded or credited against the holder's U.S. federal income tax liability, if any, provided certain information is timely filed with the IRS.



## **Foreign Account Tax Compliance Act**

Legislation commonly referred to as the Foreign Account Tax Compliance Act, or FATCA, generally imposes a U.S. federal withholding tax of 30% on payments to certain non-U.S. entities (including certain intermediaries) unless such persons comply with FATCA's information reporting and withholding regime. This regime and its requirements are different from, and in addition to, the certification requirements described elsewhere in this discussion. The FATCA withholding rules apply to dividend payments and, in the case of certain sales or other dispositions occurring after December 31, 2018 (including a distribution to the extent it is treated as a return of capital or capital gain), the gross proceeds of such disposition.

The United States has entered into, and continues to negotiate, intergovernmental agreements, each, an IGA, with a number of other jurisdictions to facilitate the implementation of FATCA. An IGA may significantly alter the application of FATCA and its information reporting and withholding requirements with respect to any particular investor. FATCA is particularly complex and its application remains uncertain. Prospective investors should consult their own tax advisors regarding how these rules may apply in their particular circumstances.

## **LEGAL MATTERS**

Certain legal matters relating to the issuance of the securities offered by this prospectus will be passed upon for us by Wilson Sonsini Goodrich & Rosati, P.C., Palo Alto, California. Certain members of, and investment partnerships comprised of members of, and persons associated with, Wilson Sonsini Goodrich & Rosati, P.C. own an interest representing less than 1% of the shares of our common stock. The underwriter has been represented by Ellenoff Grossman & Schole LLP, New York, New York.

## **EXPERTS**

The financial statements of Avinger, Inc. as of December 31, 2017, and for the year then ended, have been audited by Moss Adams LLP, an independent registered public accounting firm, as stated in their report, which is incorporated herein by reference. Such consolidated financial statements have been so incorporated in reliance upon the report of such firm (which report expresses an unqualified opinion and includes an explanatory paragraph regarding a going concern emphasis) given upon their authority as experts in accounting and auditing.

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements (and schedule) at December 31, 2016, and for the year then ended, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements (and schedule) are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

## **WHERE YOU CAN FIND MORE INFORMATION**

We file annual, quarterly and other reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at <http://www.sec.gov>. You may also read and copy any document we file at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K, including any amendments to those reports, and other information that we file with or furnish to the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act can also be accessed free of charge through the Internet. These filings will be available as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC.

We have filed with the SEC a registration statement, of which this prospectus forms a part, under the Securities Act of 1933 relating to the offering of these securities. The registration statement, including the attached exhibits, contains additional relevant information about us and the securities. This prospectus does not contain all of the information set forth in the registration statement. You can obtain a copy of the registration statement, at prescribed rates, from the SEC at the address listed above. The registration statement is also available on our Internet website, [www.avinger.com](http://www.avinger.com). We have not incorporated by reference into this prospectus the information on our website, and you should not consider it to be a part of this prospectus.

## **INFORMATION INCORPORATED BY REFERENCE**

The SEC allows us to "incorporate by reference" information into this prospectus. This means that we can disclose important information to you by referring you to another document filed separately with the SEC. The information incorporated by reference is considered to be a part of this prospectus, except for any information that is superseded by other information that is included in this prospectus.

We incorporate by reference the documents listed below that we have previously filed with the SEC (excluding any portions of any Form 8-K that are not deemed "filed" pursuant to the General Instructions of Form 8-K):

- our Annual Report on Form 10-K, for the year ended December 31, 2017, filed with the SEC on March 30, 2018, as amended by the Form 10-K/A, filed with the SEC on April 26, 2018;

the information specifically incorporated by reference into our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, from our definitive proxy statement on Schedule 14A which was filed on April 27, 2018;

our Quarterly Report on Form 10-Q, for the quarter ended March 31, 2018, filed with the SEC on May 15, 2018;

our Quarterly Report on Form 10-Q, for the quarter ended June 30, 2018, filed with the SEC on August 13, 2018;

our Current Reports on Form 8-K filed with the SEC on January 19, 2018, January 30, 2018, February 2, 2018, February 15, 2018, February 23, 2018, March 21, 2018, June 5, 2018, June 11, 2018, June 13, 2018, July 13, 2018, August 8, 2018 and August 24, 2018, only to the extent that the items therein are specifically stated to be “filed” rather than “furnished” for the purposes of Section 18 of the Exchange Act; and

the description of our common stock set forth in our registration statement on Form 8-A, filed with the SEC on January 27, 2015, including any amendment or report filed for the purpose of updating such description.

We also incorporate by reference into this prospectus additional documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits on such form that are related to such items) that we may file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the completion or termination of the offering, including all such documents we may file with the SEC after the date of the initial registration statement and prior to the effectiveness of the registration statement, but excluding any information deemed furnished and not filed with the SEC.

Any statement contained in a document incorporated by reference into this prospectus shall be deemed to be modified or superseded for the purposes of this prospectus to the extent that a statement contained herein or in any subsequently filed document that is also incorporated by reference in this prospectus modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus. You should rely only on the information incorporated by reference or provided in this prospectus. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus is accurate as of any date other than the date of this prospectus or the date of the documents incorporated by reference in this prospectus.

We will provide to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request, at no cost to the requester, a copy of any and all of the information that is incorporated by reference in this prospectus.

Requests for such documents should be directed to:

Avinger, Inc.

400 Chesapeake Drive

Redwood City, CA 94063

Attention: Secretary

(650) 241-7900

You may also access the documents incorporated by reference in this prospectus through our website at [www.avinger.com](http://www.avinger.com). Except for the specific incorporated documents listed above, no information available on or through our website shall be deemed to be incorporated in this prospectus or the registration statement of which it forms a part.

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**2,702,702 Class A Units consisting of common stock and warrants and  
7,000 Class B Units consisting of shares of Series C preferred stock and warrants  
(and 15,316,702 shares of common stock underlying shares of Series C preferred stock and  
warrants)**

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**PROSPECTUS**

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**Ladenburg Thalmann**

**, 2018**


**PART II****INFORMATION NOT REQUIRED IN PROSPECTUS****Item 13. Other Expenses of Issuance and Distribution**

The following table sets forth all expenses to be paid by the registrant, other than estimated underwriting discounts and commissions, in connection with this offering. All amounts shown are estimates except for the registration fee, the FINRA filing fee and the Nasdaq Stock Market listing fee.

	<b>Amount to be Paid</b>
SEC registration fee	\$2,091
Printing and engraving	15,000
FINRA filing fee	3,087
Legal fees and expenses	200,000
Accounting fees and expenses	100,000
Transfer agent and registrar fees	5,000
Miscellaneous	10,000
Total	\$335,178

**Item 14. Indemnification of Officers and Directors**

Section 145 of the Delaware General Corporation Law, or DGCL, provides, in effect, that any person made a party to any action by reason of the fact that he is or was a director, officer, employee or agent of ours may, and in certain cases must, be indemnified by us against, in the case of a non-derivative action, judgments, fines, amounts paid in settlement, and reasonable expenses (including attorneys' fees) incurred by him as a result of such action, and in the case of a derivative action, against expenses (including attorneys' fees), if in either type of action he acted in good faith and in a manner he reasonably believed to be in or not opposed to our best interests. This indemnification does not apply, (i) in a derivative action, to matters as to which it is adjudged that the director, officer, employee or agent is liable to us, unless upon court order it is determined that, despite such adjudication of liability, but in view of all the circumstances of the case, he is fairly and reasonably entitled to indemnity for expenses, and, (ii) in a non-derivative action, to any criminal proceeding in which such person had no reasonable cause to believe his conduct was



unlawful.

Article VIII of our current amended and restated certificate of incorporation and Article VIII of the amended and restated certificate of incorporation that our board of directors has approved and we expect our stockholders to approve in connection with this offering will provide for the indemnification of directors to the fullest extent permissible under Delaware law.

Article V of our current bylaws, as amended, and Article VIII of the amended and restated bylaws that our board of directors has approved and we expect our stockholders to approve in connection with this offering will provide for the indemnification of officers, directors and third parties acting on our behalf if such person acted in good faith and in a manner reasonably believed to be in and not opposed to our best interest and, with respect to any criminal action or proceeding, the indemnified party had no reason to believe his or her conduct was unlawful.

We have entered into indemnification agreements with certain of our directors, executive officers and others, in addition to indemnification provided for in our bylaws. Prior to the completion of this offering, we expect to enter into new indemnification agreements with each of our directors, executive officers and certain other officers, which will contain similar provisions.

We have purchased and intend to maintain insurance on behalf of any person who is or was a director or officer against any loss arising from any claim asserted against him or her and incurred by him or her in any such capacity, subject to certain exclusions. Such insurance also provides coverage to our directors and officers against loss arising from claims relating to, among other things, public securities matters.

See also the undertakings set out in response to Item 17 herein.

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## **Item 15. Recent Sales of Unregistered Securities**

We have issued and sold the following securities since January 1, 2015 to October 19, 2018.

1. In January 2015 we issued and sold to 5 accredited investors an aggregate of 12,260 shares of Series E preferred stock (convertible into an aggregate of 12,260 shares of common stock) at a purchase price per share of \$504.00. In connection therewith, we issued warrants to purchase an aggregate of 8,581 shares of our common stock at an exercise price of \$504.00 per share.

2. On September 22, 2015, we issued and sold to CRG 8,705 shares of common stock at a purchase price per share of \$559.64.

3. On November 3, 2017, we issued to Lincoln Park 23,584 shares of common stock at a value of \$12.76 per share as a commitment fee for making the commitment to purchase our common stock under the purchase agreement dated November 3, 2017 entered into with Lincoln Park. Subsequently, on November 17, 2017, the SEC declared effective the registration statement filed in connection with the Lincoln Park transaction.

4. On July 16, 2018, we issued the July 2018 Warrants to purchase an aggregate of 1,083,091 shares of common stock at an exercise price of \$1.58 per share.

## **Item 16. Exhibits and Financial Statement Schedules**

(a) Exhibits.

See the Exhibit Index on the page preceding the signature page for a list of exhibits filed as part of this registration statement on Form S-1, which Exhibit Index is incorporated herein by reference.

## **Item 17. Undertakings**

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, or the Act, may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the

Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is therefore unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

The Registrant hereby undertakes:

(a) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by section 10(a)(3) of the Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement; and

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(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

*provided, however,* that paragraphs (a)(i), (a)(ii) and (a)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or 15(d) of the Exchange Act that are incorporated by reference in the registration statement.

(b) That, for the purpose of determining any liability under the Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof;

(c) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering;

(d) That, for the purpose of determining liability under the Act of to any purchaser:

(i) Each prospectus filed by the Registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the Registration Statement as of the date the filed prospectus was deemed part of and included in the Registration Statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Act shall be deemed to be part of and included in the Registration Statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the Registration Statement relating to the securities in the Registration Statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the Registration Statement or made in a document incorporated or deemed incorporated by reference into the Registration Statement or prospectus that is part of the Registration Statement will, as to a

purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the Registration Statement or prospectus that was part of the Registration Statement or made in any such document immediately prior to such effective date;

(e) That, for purposes of determining any liability under the Act, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Act shall be deemed to be part of this Registration Statement as of the time it was declared effective;

(f) That, for the purpose of determining any liability under the Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof;

(g) To deliver or cause to be delivered with the prospectus, to each person to whom the prospectus is sent or given, the latest annual report to security holders that is incorporated by reference in the prospectus and furnished pursuant to and meeting the requirements of Rule 14a-3 or Rule 14c-3 under the Securities Exchange Act of 1934; and, where interim financial information required to be presented by Article 3 of Regulation S-X are not set forth in the prospectus, to deliver, or cause to be delivered to each person to whom the prospectus is sent or given, the latest quarterly report that is specifically incorporated by reference in the prospectus to provide such interim financial information; and

(h) That, for purposes of determining any liability under the Act, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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## Exhibit Index

Exhibit Number	Exhibit Title
1.1*	<u>Underwriting Agreement, dated _____, 2018, between the Company and Ladenburg Thalmann and Co. Inc.</u>
3.1(1)	<u>Amended and Restated Certificate of Incorporation of the registrant.</u>
3.2(1)	<u>Bylaws of the registrant.</u>
3.3(2)	<u>Certificate of Amendment to the Amended and Restated Certificate of Incorporation.</u>
3.4(3)	<u>Avinger, Inc. Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible preferred stock.</u>
3.5(4)	<u>Avinger, Inc. Certificate of Designation of Preferences, Rights and Limitations of Series B Convertible preferred stock.</u>
3.6*	<u>Avinger, Inc. Certificate of Designation of Preferences, Rights and Limitations of Series C Convertible preferred stock.</u>
3.7	<u>Certificate of Amendment to Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock.</u>
4.1(5)	<u>Specimen common stock certificate of the registrant.</u>
4.2(4)	<u>Specimen Series 1/2 warrant of the registrant.</u>
4.3(15)	<u>Form of July 2018 Warrant.</u>
4.4*	<u>Form of Warrant.</u>
5.1*	<u>Opinion of Wilson Sonsini Goodrich &amp; Rosati, Professional Corporation.</u>
10.1(6)	<u>Form of Indemnification Agreement for directors and executive officers.</u>
10.2(7)	<u>2009 Stock Plan and Form of Option Agreement thereunder.</u>
10.3(7)	<u>2014 Preferred Stock Plan.</u>
10.4(16)	<u>2015 Equity Incentive Plan, as amended.</u>
10.5(6)	<u>Form of Restricted Stock Unit Award Agreement.</u>
10.6(6)	<u>Form of Stock Option Agreement.</u>
10.7(6)	<u>2015 Employee Stock Purchase Plan.</u>
10.8(6)	<u>Executive Incentive Compensation Plan.</u>
10.9(7)	<u>Amended and Restated Investors' Rights Agreement dated September 2, 2014 by and among the registrant and certain stockholders.</u>
10.10(7)	<u>Lease Agreement, dated July 30, 2010, by and between the registrant and HCP LS Redwood City, LLC for office space located at 400 and 600 Chesapeake Drive, Redwood City, California.</u>
10.11(7)	<u>First Amendment to Lease Agreement dated September 30, 2011 by and between registrant and HCP LS Redwood City, LLC.</u>
10.12(8)	<u>Second Amendment to Lease Agreement dated March 4, 2016 by and between the registrant and HCP LS Redwood City, LLC.</u>
10.13(7)	<u>Credit Agreement dated April 18, 2013 by and between the registrant and PDL Biopharma.</u>
10.14(7)	<u>Security Agreement dated April 18, 2013 by and between the registrant and PDL BioPharma.</u>
10.15(7)	<u>Employment Letter dated November 5, 2014 by and between the registrant and John B. Simpson.</u>
10.16(7)	

- Employment Letter dated April 2, 2014 by and between the registrant and John D. Simpson.
- 10.17(7) Employment Letter dated December 29, 2010 by and between the registrant and Matthew B. Ferguson.
- 10.18(7) Employment Letter dated December 17, 2014 by and between the registrant and Jeffrey M. Soinski.
- 10.19(7) Change of Control and Severance Agreement dated March 1, 2012 by and between the registrant and John B. Simpson.
- 10.20(7) Change of Control and Severance Agreement dated March 1, 2012 by and between the registrant and Matthew B. Ferguson.
- 10.21(14) Change of Control and Severance Agreement dated March 29, 2018 by and between the registrant and Jeffrey M. Soinski.
- 10.22(3) Registration Rights Agreement, dated as of February 16, 2018, by and among the registrant, CRG Partners III L.P. and certain of its affiliated funds, as purchasers.
- 10.23(7) Note and Warrant Purchase Agreement dated October 29, 2013 by and between the registrant and holders of convertible promissory notes.
- 10.24(7) Amendment No. 1 to the Note and Warrant Purchase Agreement dated May 6, 2014 by and between the registrant and holders of convertible promissory notes.
- 10.25(8) Term Loan Agreement, dated as of September 22, 2015, by and among the registrant, certain of its subsidiaries from time to time party thereto as guarantors and CRG Partners III L.P. and certain of its affiliated funds, as lenders.
- 10.26(8) Securities Purchase Agreement, dated as of September 22, 2015, by and among the registrant, CRG Partners III L.P. and certain of its affiliated funds, as purchasers.
- 10.27(9) Sales Agreement dated as of February 3, 2016, between the Registrant and Cowen and Company, LLC.

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<b>Exhibit Number</b>	<b>Exhibit Title</b>
10.28(10)	<u>Purchase Agreement, dated as of November 3, 2017, by and between the registrant and Lincoln Park Capital Fund, LLC.</u>
10.29(10)	<u>Registration Rights Agreement, dated as of November 3, 2017, by and between the registrant and Lincoln Park Capital Fund, LLC.</u>
10.30(11)	<u>Separation Agreement and Release, dated as of December 6, 2017, by and between the registrant and John B. Simpson.</u>
10.31(12)	<u>Waiver and Consent, dated as of December 14, 2017, by and among the registrant and the lenders party thereto.</u>
10.32(13)	<u>Waiver and Consent, dated as of January 24, 2018, by and among the registrant and the lenders party thereto.</u>
10.33(3)	<u>Amendment No. 2 to Term Loan Agreement, dated as of February 14, 2018, by and among the registrant and the lenders party thereto.</u>
10.34(3)	<u>Series A Preferred Stock Purchase Agreement, dated as of February 14, 2018, by and among the registrant, CRG Partners III L.P. and certain of its affiliated funds, as purchasers.</u>
10.35(15)	<u>Securities Purchase Agreement, dated as of July 12, 2018, by and among the registrant and the purchasers identified on the signature pages thereto.</u>
10.36(16)	<u>Separation Agreement and Release, dated as of August 1, 2018, between the registrant and Matt Ferguson.</u>
10.37(16)	<u>Master Consulting Agreement, dated as of August 1, 2018, between the registrant and Matt Ferguson.</u>
10.38(16)	<u>Employment Offer Letter, dated as of June 11, 2018, between the registrant and Mark Weinswig.</u>
10.39(16)	<u>Change of Control and Severance Agreement, dated as of June 25, 2018, between the registrant and Mark Weinswig.</u>
10.40(17)	<u>Officer and Director Share Purchase Plan.</u>
23.1	<u>Consent of Independent Registered Public Accounting Firm.</u>
23.2	<u>Consent of Independent Registered Public Accounting Firm.</u>
23.3*	<u>Consent of Wilson Sonsini Goodrich &amp; Rosati, Professional Corporation (included in 5.1)</u>
24.1*	<u>Power of Attorney.</u>

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\* Previously filed.

(1) Previously filed as an Exhibit to the Current Report on Form 8-K filed with the Securities and Exchange Commission on February 6, 2015, and incorporated by reference herein.

(2) Previously filed as an Exhibit to the registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on February 2, 2018.



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Previously filed as an Exhibit to Amendment No. 2 to the registrant's Registration Statement on (3) Form S-1 (File No. 333-222517) filed with the Securities and Exchange Commission on February 12, 2018, and incorporated by reference herein.

Previously filed as an Exhibit to Amendment No. 3 to the registrant's Registration Statement on (4) Form S-1 (File No. 333-222517) filed with the Securities and Exchange Commission on February 13, 2018, and incorporated by reference herein.

Previously filed as an Exhibit to Amendment No. 2 to the registrant's Registration Statement on (5) Form S-1 (File No. 333-201322) filed with the Securities and Exchange Commission on January 28, 2015, and incorporated by reference herein.

Previously filed as an Exhibit to Amendment No. 1 to the registrant's Registration Statement on (6) Form S-1 (File No. 333-201322) filed with the Securities and Exchange Commission on January 20, 2015, and incorporated by reference herein.

Previously filed as an Exhibit to the registrant's Registration Statement on Form S-1 (File (7) No. 333-201322), filed with the Securities and Exchange Commission on December 30, 2014, and incorporated by reference herein.

Previously filed as an Exhibit to the registrant's Current Report on Form 8-K filed with the (8) Securities and Exchange Commission on November 12, 2015, and incorporated by reference herein.

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Previously filed as an Exhibit to the registrant's Registration Statement on Form S-3 (File (9)No. 333-209368), filed with the Securities and Exchange Commission on February 3, 2016, and incorporated by reference herein.

Previously filed as an Exhibit to the registrant's Registration Statement on Form S-1 (File (10)No. 333-221368), filed with the Securities and Exchange Commission on February 6, 2017, and incorporated by reference herein.

Previously filed as an Exhibit to the registrant's Current Report on Form 8-K filed with the (11)Securities and Exchange Commission on December 11, 2017, and incorporated by reference herein.

Previously filed as an Exhibit to the registrant's Current Report on Form 8-K filed with the (12)Securities and Exchange Commission on December 14, 2017, and incorporated by reference herein.

Previously filed as an Exhibit to the registrant's Current Report on Form 8-K filed with the (13)Securities and Exchange Commission on January 30, 2018, and incorporated by reference herein.

Previously filed as an Exhibit to the registrant's Annual Report on Form 10-K filed with the (14)Securities and Exchange Commission on March 30, 2018, and incorporated by reference herein.

(15) Previously filed as an Exhibit to the registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on July 13, 2018, and incorporated by reference herein.

Previously filed as an Exhibit to the registrant's Quarterly Report on Form 10-Q filed with the (16)Securities and Exchange Commission on August 13, 2018, and incorporated by reference herein.

Previously filed as an Exhibit to the registrant's Current Report on Form 8-K filed with the (17)Securities and Exchange Commission on August 24, 2018, and incorporated by reference herein.

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**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Redwood City, State of California, on October 29, 2018.

**AVINGER, INC.**

By: /s/ Jeffrey M. Soinski  
 Jeffrey M. Soinski  
 Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement on Form S-1 and the Power of Attorney has been signed below by the following persons in the capacities and on the dates indicated.

<b>Signature</b>	<b>Title</b>	<b>Date</b>
/s/ Jeffrey M. Soinski	Chief Executive Officer (Principal Executive Officer);	October 29, 2018
Jeffrey M. Soinski	Director	
/s/ Mark Weinswig	Chief Financial Officer (Principal Financial and Accounting Officer)	October 29, 2018
Mark Weinswig		
*	Director	October 29, 2018

Donald A.  
Lucas

\*                      Director                      October  
29, 2018

James B.  
McElwee

\*                      Director                      October  
29, 2018

James G.  
Cullen

\* By: /s/ Jeffrey M. Soinski  
Jeffrey M. Soinski

*Attorney-in-Fact*  
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