

APPLIED DNA SCIENCES INC

Form DEF 14A

April 04, 2019

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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

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

Applied DNA Sciences, Inc.

(Name of Registrant as Specified In Its Charter)

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

Payment of Filing Fee (Check the appropriate box):

No fee required.

Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

1)

Title of each class of securities to which transaction applies:

2)

Aggregate number of securities to which transaction applies:

3)

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

4)

Proposed maximum aggregate value of transaction:

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Total fee paid:

Fee paid previously with preliminary materials.

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

1)

Amount Previously Paid:

2)

Form, Schedule or Registration Statement No.:

3)

Filing Party:

4)

Date Filed:

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APPLIED DNA SCIENCES, INC.  
50 HEALTH SCIENCES DRIVE  
STONY BROOK, NEW YORK 11790  
(631) 240-8800

April 4, 2019

Dear Fellow Stockholder:

You are cordially invited to attend the 2019 Annual Meeting of Stockholders of Applied DNA Sciences, Inc. (“Applied DNA Sciences,” the “Company,” “we” or “us”) to be held at 10:00 a.m., local time, on Thursday, May 16, 2019, at the Center of Excellence in Wireless and Information Technology, Stony Brook, New York 11794.

At the meeting, you will be asked to (i) elect eight directors, (ii) approve the amendment of our 2005 Incentive Stock Plan to increase the number of shares of our common stock that can be issued pursuant thereto from 8,333,333 to 14,333,333, (iii) approve, on a non-binding advisory basis, the compensation of the Company’s named executive officers, (iv) approve, on a non-binding advisory basis, the frequency of the stockholder vote on the compensation of the Company’s named executive officers, and (v) ratify our appointment of Marcum LLP as our independent registered public accounting firm for the fiscal year ending September 30, 2019. In addition, we will be pleased to report on our affairs and a discussion period will be provided for questions and comments of general interest to stockholders.

Detailed information with respect to these matters is set forth in the accompanying Proxy Statement, which we encourage you to carefully read in its entirety.

We look forward to greeting personally those stockholders who are able to attend the meeting in person. However, whether or not you plan to be with us at the meeting, it is important that your shares be represented. Stockholders of record at the close of business on March 19, 2019 are entitled to notice of and to vote at the meeting. We will be using the “Notice and Access” method of providing proxy materials to you via the Internet. On or about April 5, 2019, we will mail to our stockholders a Notice of Availability of Proxy Materials (“Notice”) containing instructions on how to access our Proxy Statement and our 2018 Annual Report, as amended, and vote electronically via the Internet. The Notice also contains instructions on how to receive a printed copy of your proxy materials.

You may vote over the Internet, as well as by telephone or, if you requested to receive printed proxy materials, you can also vote by mail pursuant to instructions provided on the proxy card. Please review the instructions for each of your voting options described in the Proxy Statement, as well as in the Notice you will receive in the mail. Please note that each stockholder who wishes to attend the Annual Meeting will be required to present valid government-issued photo identification to be admitted to the Annual Meeting.

Thank you for your ongoing support of Applied DNA Sciences.

Very truly yours,

/s/ James A. Hayward

James A. Hayward  
Chairman, President and Chief Executive Officer

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APPLIED DNA SCIENCES, INC.

NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

Notice is hereby given that the 2019 Annual Meeting of Stockholders (the “Annual Meeting”) of Applied DNA Sciences, Inc. (“Applied DNA Sciences” or the “Company”), will be held on Thursday, May 16, 2019 at 10:00 a.m., local time, at the Center of Excellence in Wireless and Information Technology, Stony Brook, New York 11794 for the following purposes:

- to elect eight directors, constituting the entire board of directors of the Company (the “Board of Directors”), to serve until the Company’s next annual meeting of stockholders, or until their respective successors are duly elected and qualified;
- to approve the amendment of our 2005 Incentive Stock Plan (the “2005 Incentive Stock Plan”) to increase the number of shares of our common stock that can be issued pursuant thereto from 8,333,333 to 14,333,333;
- to approve, on a non-binding advisory basis, the compensation of the Company’s named executive officers;
- to approve, on a non-binding advisory basis, the frequency of the stockholder vote on the compensation of the Company’s named executive officers;
- to ratify the appointment of Marcum LLP as our independent registered public accounting firm for the fiscal year ending September 30, 2019; and
- to consider and act upon such other matters as may properly come before the meeting or any postponement or adjournment of the meeting.

These matters are more fully described in the accompanying Proxy Statement.

Only stockholders of record at the close of business on March 19, 2019 are entitled to notice of and to vote at the meeting or any postponements or adjournments of the meeting. A list of stockholders eligible to vote at the meeting will be available for inspection at the meeting and for a period of ten days prior to the meeting during regular business hours at our corporate headquarters at Applied DNA Sciences, 50 Health Sciences Drive, Stony Brook, New York 11790. On or about April 5, 2019, the Company will mail to stockholders a Notice of Availability of Proxy Materials containing instructions on how to access our Proxy Statement and our 2018 Annual Report, as amended, and vote electronically via the Internet or vote by telephone, and how to request printed proxy materials.

Your vote is very important. Whether or not you plan to attend the Annual Meeting, we encourage you to read the Proxy Statement and submit your proxy or voting instructions as soon as possible by Internet, telephone or mail. For specific instructions on how to vote your shares, please refer to the instructions on the Notice of Internet Availability of Proxy Materials you will receive in the mail, the section entitled “About the Annual Meeting” beginning on page 1 of the Proxy Statement or, if you request to receive printed proxy materials, your enclosed proxy card. Please note that shares held beneficially in street name may be voted by you in person at the Annual Meeting only if you obtain a legal proxy from the broker, bank, trustee, or other nominee that holds your shares giving you the right to vote the shares.

Ms. Judith Murrah

Secretary

Stony Brook, New York

April 4, 2019

Important Notice Regarding the Availability of Proxy Materials  
for the Annual Meeting of Stockholders  
To Be Held on May 16, 2019

The Proxy Statement, along with our 2018 Annual Report, as amended, is available free of charge at the following website: [www.proxyvote.com](http://www.proxyvote.com).

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APPLIED DNA SCIENCES, INC.  
50 HEALTH SCIENCES DRIVE  
STONY BROOK, NEW YORK 11790

**PROXY STATEMENT**

Our Board of Directors has made this Proxy Statement and related materials available to you on the Internet, or, upon your request, has delivered printed proxy materials to you by mail, in connection with the Board of Directors' solicitation of proxies for use at the 2019 Annual Meeting of Stockholders of Applied DNA Sciences, Inc. to be held on Thursday, May 16, 2019, beginning at 10:00 a.m., local time, at the Center of Excellence in Wireless and Information Technology, Stony Brook, New York 11794, and at any postponements or adjournments of the Annual Meeting. As a stockholder, you are invited to attend the Annual Meeting and are requested to vote on the items of business described in this Proxy Statement.

**ABOUT THE ANNUAL MEETING**

Why did I receive a notice in the mail regarding the Internet availability of proxy materials instead of a full set of proxy materials?

In accordance with rules adopted by the Securities and Exchange Commission ("SEC"), we are providing access to our proxy materials over the Internet. Accordingly, we are sending a Notice Regarding Availability of Proxy Materials (the "Notice") to our stockholders of record and beneficial owners as of the record date (for more information on the record date, see "— Who is entitled to vote at the Annual Meeting?"). The mailing of the Notice to our stockholders is scheduled to begin on or about April 5, 2019. All stockholders will have the ability to access the proxy materials and our Annual Report on Form 10-K for the fiscal year ended September 30, 2018, as amended (the "Annual Report") on a website referred to in the Notice or to request to receive a printed set of the proxy materials and the Annual Report. Instructions on how to access the proxy materials over the Internet or to request a printed copy may be found in the Notice. Stockholders may also request to receive proxy materials and our Annual Report in printed form by mail or electronically by email on an ongoing basis.

How do I get electronic access to the proxy materials?

The Notice will provide you with instructions regarding how you can:

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

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Instruct us to send our future proxy materials to you electronically by email.

Choosing to receive your future proxy materials by email will save us the cost of printing and mailing documents to you, and will reduce the impact of printing and mailing these materials on the environment. Stockholders may also request to receive proxy materials and our Annual Report in printed form by mail or electronically by email on an ongoing basis. If you choose to receive future proxy materials by email, you will receive an email next year with instructions containing a link to those materials and a link to the proxy voting website. Your election to receive proxy materials by email will remain in effect until you terminate it.

What is the purpose of the Annual Meeting?

At our Annual Meeting, stockholders will act upon the matters outlined in the notice of meeting accompanying this Proxy Statement, consisting of (i) the election of eight directors; (ii) the approval of the amendment of the 2005 Incentive Stock Plan to increase the number of shares of our common stock that can be issued pursuant thereto from 8,333,333 to 14,333,333; (iii) the approval, on a non-binding advisory basis, of the compensation of the Company's named executive officers; (iv) the approval, on a non-binding advisory basis, of the frequency of the stockholder vote on the compensation of the Company's named executive officers; (v) the ratification of the appointment of Marcum LLP as our independent registered public accounting firm for the fiscal year ending September 30, 2019; and (vi) such other business that may properly come before the meeting or any postponement or adjournment thereof. In addition, management





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will report on our performance during the fiscal year ended September 30, 2018 and more recent developments and respond to questions from stockholders. Our Board of Directors is not currently aware of any other matters which will come before the meeting.

How do proxies work and how are votes counted?

The Board of Directors is asking for your proxy. Giving us your proxy means that you authorize us to vote your shares at the Annual Meeting in the manner you direct. You may vote for all of our director nominees or withhold your vote as to some or all of our director nominees. You may also vote for or against, or abstain from voting on the approval of the amendment of the 2005 Incentive Stock Plan to increase the number of shares of our common stock that can be issued pursuant thereto from 8,333,333 to 14,333,333, the approval, on a non-binding advisory basis, of the compensation of the Company's named executive officers, the approval, on a non-binding advisory basis, of frequency of the stockholder vote on the compensation of the Company's named executive officers, and the ratification of our selection of Marcum LLP as our independent registered public accounting firm for the fiscal year ending September 30, 2019. If a stockholder of record does not indicate instructions with respect to one or more matters on his, her or its proxy, the shares represented by that proxy will be voted as recommended by the Board of Directors (for more information, see "— What are the Board of Directors' recommendations as to the proposals to be voted on?"). If a beneficial owner of shares held in street name does not provide instructions to the bank, broker, or other nominee holding those shares, please see the information below under the caption "— What if I am a beneficial owner and do not give voting instructions to my broker or other nominee?"

Who is entitled to vote at the Annual Meeting?

Only stockholders of record at the close of business on March 19, 2019, the record date for the meeting, are entitled to receive notice of and to participate in the Annual Meeting, or any postponements and adjournments of the meeting. If you were a stockholder of record on that date, you will be entitled to vote all of the shares you held on that date at the meeting, or any postponements or adjournments of the meeting.

On March 19, 2019, the record date for the meeting, there were 36,847,857 shares of common stock outstanding. Each outstanding share of common stock is entitled to one vote on each of the matters presented at the Annual Meeting or postponements and adjournments of the meeting.

What constitutes a quorum?

The presence at the meeting, in person or by proxy, of the holders of a majority of the outstanding shares of common stock as of the record date will constitute a quorum, permitting the Annual Meeting to conduct its business. As of the record date, 36,847,857, shares of common stock, representing the same number of votes, were outstanding. Thus, the presence of holders representing at least 18,423,930 shares will be required to establish a quorum.

If a stockholder abstains from voting as to any matter or matters, the shares held by such stockholder shall be deemed present at the Annual Meeting for purposes of determining a quorum. If a bank, broker, or other nominee returns a "broker non-vote" proxy, indicating a lack of voting instructions by the beneficial holder of the shares and a lack of discretionary authority on the part of the bank, broker, or other nominee to vote on a particular matter, then the shares covered by such broker non-vote proxy shall be deemed present at the Annual Meeting for purposes of determining a quorum, but otherwise shall have no effect except as to any proposal with respect to which the bank, broker, or other nominee has discretionary authority to vote the proxy. For more information on discretionary and non-discretionary matters, see "— What if I am a beneficial owner and do not give voting instructions to my broker or other nominee?"

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How do I attend the Annual Meeting?

The meeting will be held on May 16, 2019 beginning at 10:00 a.m., local time, at the Center of Excellence in Wireless and Information Technology, Stony Brook, New York 11794. Directions to the Center of Excellence in Wireless and Information Technology can be found on our website at [www.adnas.com](http://www.adnas.com). The information found on, or accessible through, our website is not incorporated into, and does not form a part of, this Proxy Statement or any other report or document we file with or furnish to the SEC due to the inclusion of our website address above or elsewhere in this Proxy Statement. Information on how to vote in person at the Annual Meeting is discussed below under the caption “— How can I vote my shares?” Each stockholder who wishes to attend the Annual Meeting will be required to present valid government-issued photo identification to be admitted to the Annual Meeting.

How can I vote my shares?

In person:

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Record stockholders: Shares held in your name as the stockholder of record may be voted by you in person at the Annual Meeting.

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Owners of shares held beneficially in street name: Shares held beneficially in street name may be voted by you in person at the Annual Meeting only if you obtain a legal proxy from the broker, bank, or other nominee that holds your shares giving you the right to vote the shares and you bring that legal proxy with you to the Annual Meeting.

Even if you plan to attend the Annual Meeting, we recommend that you also submit your proxy or voting instructions as described below so that your vote will be counted if you later decide not to attend the meeting.

By proxy:

Whether you hold shares directly as the stockholder of record or beneficially in street name, you may direct how your shares are voted without attending the Annual Meeting.

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Record stockholders: (1) You can vote by proxy over the Internet up until 11:59 P.M. Eastern Time on May 15, 2019 by following the instructions provided in the Notice. (2) You can vote by telephone up until 11:59 P.M. Eastern Time on May 15, 2019 by following instructions provided on the proxy card attached to the Proxy Statement. (3) If you have requested to receive printed proxy materials, you can vote by mail by following instructions provided on the proxy card attached to the Proxy Statement. The proxy card, if you choose to vote by mail, must be received prior to the holding of the vote at the Annual Meeting at 10:00 AM, Eastern Time, on May 16, 2019.

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Owners of shares held beneficially in street name: Please refer to the voting instructions provided by your broker, bank, or other nominee for information on how to vote by telephone, by Internet or by mail. In addition, you may request printed copies of the Proxy Statement and proxy card from your broker by following the instructions provided by your broker, bank, or other nominee.

Stockholders who submit a proxy by Internet or telephone need not return a proxy card or any form forwarded by your broker, bank, trust or nominee. Stockholders who submit a proxy through the Internet or telephone should be aware that they may incur costs to access the Internet or telephone, such as usage charges from telephone companies or Internet service providers, and that these costs must be borne by the stockholder.

What am I voting on at the Annual Meeting?

There are five matters scheduled for a vote at the Annual Meeting:

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Proposal No. 1: to elect eight directors, constituting the entire Board of Directors, to serve until the Company's next annual meeting of stockholders, or until their respective successors are duly elected and qualified;



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- Proposal No. 2: to approve the amendment of the 2005 Incentive Stock Plan to increase the number of shares of our common stock that can be issued pursuant thereto from 8,333,333 to 14,333,333;

- Proposal No. 3: to approve, on a non-binding advisory basis, the compensation of the Company's named executive officers;

- Proposal No. 4: to approve, on a non-binding advisory basis, the frequency of the stockholder vote on the compensation of the Company's named executive officers; and

- Proposal No. 5: to ratify the appointment of Marcum LLP as our independent registered public accounting firm for the fiscal year ending September 30, 2019.

Each of these proposals is described in further detail below.

What happens if additional matters are presented at the Annual Meeting?

Other than the items of business described in this Proxy Statement, we are not currently aware of any other business to be acted upon at the Annual Meeting. If you grant a proxy, the persons named as proxy holders, Ms. Beth Jantzen and Ms. Judith Murrah, will have the discretion to vote your shares on any additional matters properly presented for a vote at the meeting. If for any reason any of the nominees is not available as a candidate for director, the persons named as proxies will vote your proxy for such other candidate or candidates as may be nominated by the Board of Directors.

How does the Board of Directors' recommend that I vote?

As to the proposals to be voted on at the Annual Meeting, the Board of Directors unanimously recommends that you vote:

- FOR Proposal No. 1, for the election of each of the eight nominated candidates for director;

- FOR Proposal No. 2, for the approval of the amendment of the 2005 Incentive Stock Plan to increase the number of shares of our common stock that can be issued pursuant thereto from 8,333,333 to 14,333,333;

- FOR Proposal No. 3, for the approval, on a non-binding advisory basis, of the compensation of the Company's named executive officers;

- FOR Proposal No. 4, for the approval, on a non-binding advisory basis, to hold advisory votes on the compensation of the Company's named executive officers every three years; and

- FOR Proposal No. 5, for the ratification of the appointment of Marcum LLP as our independent registered public accounting firm for the fiscal year ending September 30, 2019.

What if I am a stockholder of record and do not indicate voting instructions on my proxy?

If you are a stockholder of record and provide specific instructions on your proxy with regard to certain items, your shares will be voted as you instruct on such items. If no instructions are indicated on your proxy for one or more of the proposals to be voted on, the shares will be voted as recommended by the Board of Directors: (i) in favor of each of our director nominees, (ii) for the approval of the amendment of the 2005 Incentive Stock Plan to increase the number

of shares of our common stock that can be issued pursuant thereto from 8,333,333 to 14,333,333, (iii) for the approval, on a non-binding advisory basis, of the compensation of the Company's named executive officers, (iv) for the approval, on a non-binding advisory basis, to hold advisory votes on the compensation of the Company's named executive officers every three years, and (v) for the ratification of Marcum LLP as our independent registered public accounting firm for the fiscal year ending September 30, 2019. If any other matters are properly presented for consideration at the meeting, the individuals named as proxy holders, Ms. Beth Jantzen and Ms. Judith Murrah, will vote the shares that they represent on those matters as recommended by the Board of Directors. If the Board of Directors does not make a recommendation, then they will vote in accordance with their best judgment.

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What if I am a beneficial owner and do not give voting instructions to my broker or other nominee?

As a beneficial owner, in order to ensure your shares are voted in the way you would like, you must provide voting instructions to your bank, broker, or other nominee by the deadline provided in the materials you receive from your bank, broker, or other nominee or vote by mail, telephone or Internet according to instructions provided by your bank, broker, or other nominee. If you do not provide voting instructions to your bank, broker, or other nominee, whether your shares can be voted by such person or entity depends on the type of item being considered for vote.

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**Non-Discretionary Items.** The election of directors, the approval of the amendment of the 2005 Incentive Stock Plan to increase the number of shares of our common stock that can be issued pursuant thereto from 8,333,333 to 14,333,333, the non-binding advisory approval of the compensation of our named executive officers, and the non-binding advisory approval of the frequency of the stockholder vote on the compensation of the Company's named executive officers are non-discretionary items and may not be voted on by brokers, banks or other nominees who have not received specific voting instructions from beneficial owners. A broker non-vote occurs when a broker holding shares for a beneficial owner does not vote on a particular proposal because the broker does not have discretionary voting authority and has not received voting instructions from the beneficial owner.

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**Discretionary Items.** The ratification of the appointment of Marcum LLP as our independent registered public accounting firm for the fiscal year ending September 30, 2019 is a discretionary item. Generally, brokers, banks and other nominees that do not receive voting instructions from beneficial owners may vote on this proposal in their discretion.

We encourage you to provide instructions to your broker regarding the voting of your shares.

Can I change my vote or revoke my proxy?

Yes. (1) If you are a stockholder of record, you may revoke your proxy by (i) following the instructions on the Notice and entering a new vote by telephone or over the Internet up until 11:59 P.M. Eastern Time on May 15, 2019, (ii) attending the Annual Meeting and voting in person (although attendance at the Annual Meeting will not in and of itself revoke a proxy) or (iii) entering a new vote by mail. Any written notice of revocation or subsequent proxy card must be received by the Secretary of the Company prior to the holding of the vote at the Annual Meeting at 10:00 AM, Eastern Time, on May 16, 2019. Such written notice of revocation or subsequent proxy card should be hand delivered to the Secretary of the Company or sent to the Company's principal executive offices at 50 Health Sciences Drive, Stony Brook, New York 11790, Attention: Corporate Secretary. (2) If a broker, bank, or other nominee holds your shares, you must contact them in order to find out how to change your vote.

The last proxy or vote that we receive from you will be the vote that is counted.

Who will bear the cost of soliciting votes for the Annual Meeting?

We will pay the entire cost of preparing, assembling, printing, mailing, and distributing these proxy materials and soliciting votes. If you choose to access the proxy materials and/or vote over the Internet, you are responsible for Internet access charges you may incur. If you choose to vote by telephone, you are responsible for telephone charges you may incur. In addition to the mailing of these proxy materials, the solicitation of proxies or votes may be made in person, by telephone, or by electronic communication by our directors, officers, and employees, who will not receive any additional compensation for such solicitation activities. We have engaged Kingsdale Advisors to assist in soliciting proxies on our behalf. Kingsdale Advisors may solicit proxies personally, electronically or by telephone. We have agreed to pay Kingsdale Advisors a fee of \$9,000 for its services. We have also agreed to reimburse Kingsdale Advisors for its reasonable out-of-pocket expenses and to indemnify Kingsdale Advisors and its employees against certain liabilities arising from or in connection with the engagement.

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What is “householding” and where can I get additional copies of proxy materials?

For information about householding and how to request additional copies of proxy materials, please see the section captioned “Householding of Proxy Materials.”

Whom may I contact if I have other questions about the Annual Meeting or voting?

You may contact the Company at 50 Health Sciences Drive, Stony Brook, New York 11790, Attention: Beth Jantzen, or by telephone at 631-240-8800 or you may contact Kingsdale Advisors by telephone at 1-855-682-9644.

Where can I find the voting results of the Annual Meeting?

We will announce preliminary voting results at the Annual Meeting. Voting results will be disclosed on a Form 8-K filed with the SEC within four business days after the Annual Meeting, which will also be available on our website.

We encourage you to vote by proxy over the Internet by following the instructions provided in the Notice, or, if you requested to receive printed proxy materials, you can also vote by mail or telephone pursuant to instructions provided on the proxy card.

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## PROPOSAL NO. 1 — ELECTION OF DIRECTORS

Eight directors (constituting the entire Board of Directors) are to be elected at the Annual Meeting to serve until the 2020 Annual Meeting of Stockholders, or until their respective successors are elected and qualified. All of the nominees are our current directors and have been nominated for re-election by our Board of Directors. The Company intends that the proxy in the form presented will be voted, unless otherwise indicated, for the election of these nominees to serve until the 2020 Annual Meeting of Stockholders, or until their successors are elected and qualified. Our Certificate of Incorporation provides that the number of directors that constitute the whole Board of Directors shall be fixed exclusively in the manner designated in the Company's Bylaws. The Company's Bylaws provide that the number of directors is determined by resolution of the Board of Directors, provided that the Board of Directors shall consist of at least one member.

On July 11, 2011, Delabarta, Inc. ("Delabarta"), a wholly owned subsidiary of ABARTA, Inc. ("ABARTA"), participated as an investor in the Company's private placement of our common stock, as described in our Current Report on Form 8-K filed with the SEC on July 15, 2011. In connection with the investment in the Company by Delabarta, we agreed to use best efforts to nominate its designee, Mr. John Bitzer, III to the Board of Directors and elect Mr. Bitzer as a director within 30 days of the closing and to nominate and include Mr. Bitzer on the slate of nominees for the Board of Directors for election by stockholders at the annual meetings of stockholders for so long as Delabarta owns at least 2% of the outstanding shares of common stock.

Should one or more of these nominees be unable to accept nomination or election as a director, the individuals named as proxy holders, Ms. Beth Jantzen and Ms. Judith Murrah, will vote the shares that they represent for such other persons as the Board of Directors may recommend. The Board of Directors has no present knowledge that any of the nominees for director named below will be unavailable to serve.

The directors standing for re-election, together with their ages as of March 19, 2019 and certain other information, are:

Director	Age	Year First Became Director	Principal Occupation and Other Board of Directors Service During the Past Five Years
James A. Hayward, Ph.D., Sc.D.	65	2006	Dr. James A. Hayward has been our Chief Executive Officer since March 17, 2006 and our President and the Chairman of the Board of Directors since June 12, 2007. He was previously our acting Chief Executive Officer since October 5, 2005. He also served as Acting Chief Financial Officer from August 20, 2013 through October 13, 2013. Dr. Hayward received his Ph.D. in Molecular Biology from the State University of New York at Stony Brook in 1983 and an honorary Doctor of Science from the same institution in 2000. His experience with public companies began with the co-founding of one of England's first biotechnology companies — Biocompatibles. Following this, Dr. Hayward was Head of Product Development for the Estee Lauder companies for five years. In 1990 he founded The Collaborative Group, a provider of products and services to the biotechnology, pharmaceutical and consumer-product industries based in Stony Brook, where he served as Chairman, President and Chief Executive Officer for 14 years. During this period, The Collaborative Group created several businesses, including The Collaborative BioAlliance, a contract developer and manufacturer of human gene products that was sold to Dow Chemical in 2002, and Collaborative Labs, a service provider and manufacturer of ingredients for skincare and dermatology that was sold to Engelhard (now BASF) in 2004. Dr. Hayward also serves on the board of directors for the Regents Council, Softheon Corporation and NeoMatrix Formulations, Inc. Dr. Hayward's experience and senior



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Director	Age	Year First Became Director	Principal Occupation and Other Board of Directors Service During the Past Five Years
			<p>leadership positions in companies in the biotechnology, pharmaceutical and consumer-product industries, and specifically his qualifications and skills in the areas of general operations, financial operations and administration, as well as his role as the Company's Chief Executive Officer and President led the Board of Directors to conclude that Dr. Hayward should serve as a director of the Company.</p> <p>John Bitzer, III, joined the Board of Directors on August 10, 2011. Mr. Bitzer is President and Chief Executive Officer of ABARTA, a private, third and fourth generation family holding-company with operations in the soft drink, energy, and frozen food industries. In 1985, Mr. Bitzer began his career in sales for the Cleveland Coca-Cola Bottling Company. He has been Publisher of Atlantic City Magazine in Atlantic City, N.J. In 1994, he founded the ABARTA Media Group and held the position of Group Publisher. In 1997, he was named President and Chief Operating Officer of ABARTA and has been President and Chief Executive Officer since 1999. Mr. Bitzer has a bachelor's degree from the University of Southern California and a Masters of Business Administration ("MBA") from the University of Michigan. Mr. Bitzer's experience as an executive officer and director of several private companies and organizations led the Board of Directors to conclude that he should serve as a director of the Company.</p> <p>Robert B. Catell was appointed to the Board of Directors on October 7, 2016. Since 2006, Mr. Catell has been serving as Chairman of the Advanced Energy Research and Technology Center (AERTC) at Stony Brook University and since 2009 he has been servicing as the Chairman of the New York State Smart Grid Consortium. He served on the Board of Directors of New York State Energy Research &amp; Developmental Authority. Among other accomplishments, Mr. Catell was formerly Chairman and CEO of KeySpan Corporation and KeySpan Delivery (formerly Brooklyn Union Gas), and Chairman of National Grid, U.S. and Deputy Chairman of National Grid plc, upon National Grid's acquisition of KeySpan. He also serves on the board of several business and not-for-profit organizations, including public company BioRestorative Therapies, Inc. He has been Chairman of Applied DNA Sciences' Strategic Advisory Board of Directors since its inception in February 2016.</p> <p>Mr. Catell holds both a Master's and Bachelor's degree in Mechanical Engineering from City College of New York and is a registered Professional Engineer. He has attended Columbia University's Executive Development Program, and the Advanced Management Program at the Harvard Business School. Mr. Catell's extensive executive-level management experience, including as a director at other private and public companies and within regulated and technical industries, qualifies him to serve as one of our directors.</p> <p>Joseph D. Ceccoli was appointed to the Board of Directors on December 3, 2014. Since 2010, Mr. Ceccoli has been the Founder, President and CEO of Biocogent, LLC ("Biocogent"), a bioscience company located at the</p>
John Bitzer, III	58	2011	
Robert B. Catell	82	2016	
Joseph D. Ceccoli	56	2014	

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Director	Age	Year First Became Director	Principal Occupation and Other Board of Directors Service During the Past Five Years
			<p>Stony Brook Long Island High Technology Incubator. Biocogent is focused on the invention, development and commercialization of skin-active molecules and treatment products used in regulated (over-the-counter/med-care), personal care and consumer products. Prior to starting Biocogent, Mr. Ceccoli was Global Director of Operations for BASF Corporation, a global Fortune 100 company and the world's largest global chemical company, where he was responsible for the integration, operations and growth of domestic and overseas business units from 2007 to 2008. Prior to BASF, Mr. Ceccoli was a General Manager for Engelhard Corporation, a U.S.-based Fortune 500 company and chief operating officer of Long Island-based The Collaborative Group from 2004 to 2007. Mr. Ceccoli holds a Bachelor of Science ("B.S.") degree in Biotechnology from Rochester Institute of Technology and advanced professional training in various pharmaceutical sciences, emulsion chemistry, engineering and management disciplines. He is a member of numerous professional organizations such as the American Chemical Society and the Society of Cosmetic Chemists. Mr. Ceccoli's experience across the bioscience and chemical markets, including in global and U.S.-based operations and management, enriches our Board of Directors. Mr. Ceccoli's experience as an executive officer and director of several bioscience and chemical companies and organizations led the Board of Directors to conclude that he should serve as a director of the Company.</p> <p>Dr. Charles S. Ryan joined the Board of Directors on August 10, 2011. On December 14, 2017, Dr. Ryan entered into an employment agreement with Neurotrope BioScience pursuant to which he agreed to serve as its Chief Executive Officer commencing February 15, 2018. In addition, Dr. Ryan became a member of Neurotrope's Board of Directors effective December 14, 2017. Since October 2016, he has been Chief Executive Officer of Orthobond Corporation. In August 2017, he was appointed President and Chief Executive Officer of Orthobond Corporation. He will cease to be the President and Chief Executive Officer of Orthobond Corporation on February 14, 2018. From March 2015 until October 2016, Dr. Ryan was Vice President and General Counsel for Cold Spring Harbor Laboratory, a preeminent international research institution. Prior to that, Dr. Ryan was the Senior Vice President, and Chief Intellectual Property Counsel at Forest Laboratories, where he was employed from 2003 to 2014. Dr. Ryan has over 20 years' experience in managing all aspects of intellectual property litigation, conducting due diligence investigations and prosecuting patent and trademark applications in the pharmaceutical and biotechnology industries. Dr. Ryan earned a doctorate in oral biology and pathology from SUNY Stony Brook and a law degree from Western New England College School of Law.</p> <p>Our Board believes that Dr. Ryan's expertise as Chief Executive Officer for a medical device company, as well as general counsel for a preeminent international research institution and former chief intellectual property counsel at a global company makes him an important contributor to the Board.</p>
Charles S. Ryan	54	2011	

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Director	Age	Year First Became Director	Principal Occupation and Other Board of Directors Service During the Past Five Years
Yacov A. Shamash	69	2006	<p>Dr. Yacov A. Shamash has been a member of the Board of Directors since March 17, 2006. Dr. Shamash is Vice President of Economic Development at the State University of New York at Stony Brook, a position he has held since 2000. From 1992 to 2015, he was the Dean of Engineering and Applied Sciences, and from 1995 to 2004, Dr. Shamash was also the Dean of the Harriman School for Management and Policy at the University. He was founder of the New York State Center for Excellence in Wireless and Information Technology at the University. Dr. Shamash developed and directed the NSF Industry/University Cooperative Research Center for the Design of Analog/ Digital Integrated Circuits from 1989 to 1992 and also served as Chairman of the Electrical and Computer Engineering Department at Washington State University from 1985 until 1992. Dr. Shamash also serves on the board of directors of public companies Comtech Telecommunications Corp. and Keytronic Corp. Dr. Shamash holds a Ph.D. degree in Electrical Engineering from Imperial College of Science and Technology in London, England. Dr. Shamash daily encounters leaders of businesses large and small, regional and global in their reach and, as a member of our Board of Directors, has played an integral role in our business development by providing the highest-level introductions to customers, channels to market and to the media.</p> <p>Dr. Shamash also brings to our Board of Directors his valuable experience gained from serving as a director at other private and public companies. The Board of Directors believes that Dr. Shamash's technical experience and other abilities make him a valuable member of the Board of Directors.</p>
Sanford R. Simon	76	2006	<p>Dr. Sanford R. Simon has been a member of the Board of Directors since March 17, 2006. Dr. Simon has been a Professor of Biochemistry, Cell Biology and Pathology at Stony Brook since 1997. He joined the faculty at Stony Brook as an Assistant Professor in 1969 and was promoted to Associate Professor with tenure in 1975. Dr. Simon was a member of the board of directors of The Collaborative Group from 1995 to 2004. From 1967 to 1969, Dr. Simon was a Guest Investigator at Rockefeller University. Dr. Simon received a B.A. in Zoology and Chemistry from Columbia University in 1963, a Ph.D. in Biochemistry from Rockefeller University in 1967, and studied as a postdoctoral fellow with Nobel Prize winner Max Perutz in Cambridge, England. He maintains an active research laboratory studying aspects of cell invasion in cancer and inflammation and novel strategies of drug delivery; he also teaches undergraduate, graduate, medical and dental students. Dr. Simon is an expert at the use of large biomolecules in commercial media, and we have made use of his expertise in formulating DNA into commercial carriers for specific customers. As a member of our Board of Directors, Dr. Simon has advised us on patents, provided technical advice, and introduced us to corporate partners and customers. The Board of Directors believes that Dr. Simon's advice makes him a valuable member of the Board of Directors.</p>

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Director	Age	Year First Became Director	Principal Occupation and Other Board of Directors Service During the Past Five Years
Elizabeth M. Schmalz Ferguson	68	2017	<p>Ms. Elizabeth M. Schmalz Ferguson has been a member of the Board of Directors since June 2017. She has served as President of American Flavors &amp; Fragrances, a fragrance company, since 2007. Ms. Ferguson also serves as President of her own consulting firm, Betsy Schmalz Ferguson &amp; Associates. She served as Senior Vice President of Corporate Product Development at Estée Lauder. Ms. Ferguson's responsibilities included overseeing product development for some of the company's most prominent brands. Subsequently, she was Executive Vice President of Product Development at Bath and Body Works and Victoria's Secret for The Limited. Ms. Ferguson started her senior management career at Revlon with responsibility for new product development for companies including Borghese, Ultima II and Prestige fragrances. She is an active member of Cosmetic Executive Women. She earned a bachelor's degree in psychology from Georgian Court University. Ms. Ferguson's track record of accomplishments as a strategist and products leader within the cosmetics and personal care industries led the Board of Directors to conclude she should serve as a director of the Company.</p>

There are no family relationships between any director, executive officer, or person nominated or chosen by us to become a director or executive officer.

## Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), requires our officers and directors and persons who beneficially own more than 10% of any class of our equity securities registered pursuant to Section 12 of the Exchange Act to file reports of securities ownership and changes in such ownership with the SEC. Officers, directors and greater than 10% beneficial owners ("10% stockholders") also are required by SEC rules to furnish us with copies of all Section 16(a) forms they file. Based solely upon a review of such forms filed with the SEC with respect to the fiscal year ended September 30, 2018, as the case may be, and upon written representations from these reporting persons, we believe that none of our officers, directors or 10% stockholders failed to file on a timely basis, reports required by Section 16(a) during fiscal 2018, except as follows: Drs. Hayward and Shamash, Messrs. Bitzer and Catell, and Mses. Ferguson and Murrah each made one late filing on October 9, 2018, each for the purchase of a secured convertible note on August 31, 2018.

## Vote Required

The eight nominees who receive the highest number of affirmative votes of the shares present in person or represented by proxy and entitled to vote on the election of directors, a quorum being present, will be elected as our directors. Abstentions, broker non-votes and instructions on the accompanying proxy card to withhold authority to vote for one or more nominees will not be counted as votes in favor of the relevant nominee or nominees and will result in the relevant nominee or nominees receiving fewer total votes. However, the number of votes cast in favor of such nominee will not be reduced by any abstention, broker non-vote or instructions to withhold authority. The Company intends that the proxy in the form presented will be voted, unless otherwise indicated, for the election of these nominees. In the absence of instructions to the contrary, the shares represented by the accompanying proxy card will be voted "FOR" all the nominees named above.

The Board of Directors unanimously recommends a vote "FOR" the election of each of the nominees to the Board of Directors named in this Proposal No. 1.

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PROPOSAL NO. 2 —

APPROVAL OF THE AMENDMENT OF THE 2005 INCENTIVE STOCK PLAN TO INCREASE THE NUMBER OF SHARES OF OUR COMMON STOCK THAT CAN BE ISSUED PURSUANT THERETO FROM 8,333,333 TO 14,333,333

The Board of Directors believes that it is in the best interest of the stockholders to adopt an amendment to the 2005 Incentive Stock Plan to increase the number of shares issuable thereunder. On March 25, 2019, our Board of Directors unanimously adopted an amendment to the 2005 Incentive Stock Plan that will increase the total number of shares of common stock that can be issued under the 2005 Incentive Stock Plan from 8,333,333 shares to 14,333,333 shares (the “Plan Amendment”). Other than as set forth in the preceding sentence, the 2005 Incentive Stock Plan after the Plan Amendment is substantially similar to the 2005 Incentive Stock Plan without the inclusion of the Plan Amendment. The effectiveness of the Plan Amendment is subject to approval by the Company’s stockholders at the Annual Meeting. Our executive officers and directors have an interest in the Plan Amendment because they are eligible for awards under the 2005 Incentive Stock Plan.

The 2005 Incentive Stock Plan is intended to be a flexible vehicle through which we may offer equity-based compensation incentives in order to attract, motivate, reward and retain qualified directors, executives, consultants, and other key personnel and to further align their interests with those of our stockholders. Our Board of Directors believes that the 2005 Incentive Stock Plan is an essential element in our executive compensation program.

If our stockholders do not approve this proposal, the Plan Amendment will not become effective and the 2005 Incentive Stock Plan will continue in effect, but will likely not have a sufficient number of shares to continue providing equity-based compensation to our directors, executives and other key personnel after December 31, 2019. The Board of Directors believes this would present serious challenges to our ability to attract and retain management and other key personnel and would be detrimental to our business and the interests of our stockholders. Accordingly, our Board of Directors recommends the approval of the Plan Amendment.

Description of the 2005 Incentive Stock Plan

The following description of the 2005 Incentive Stock Plan, as amended by the Plan Amendment, is qualified in its entirety by reference to the full text of the 2005 Incentive Stock Plan, attached hereto as Appendix A.

Types of Awards

Awards under the 2005 Incentive Stock Plan may be in the form of options to purchase shares of our common stock (including options intended to qualify as “incentive stock options” (“ISOs”) within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended (the “Code”) and options which do not qualify as ISOs), restricted stock awards, deferred stock awards and other forms of stock based awards.

Authorized Shares; Limitations on Awards

Assuming that our stockholders approve this proposal, subject to adjustment to reflect stock splits, stock dividends and other changes in capitalization, an aggregate of 14,333,333 shares of our common stock may be issued under the 2005 Incentive Stock Plan. This represents an increase of 6,000,000 shares over the 8,333,333 shares that were authorized prior to the Plan Amendment. All 14,333,333 shares may be issued as ISOs. For the purpose of determining the number of shares available for issuance under the 2005 Incentive Stock Plan, shares subject to an award that is forfeited, terminated or expired will remain available for issuance pursuant to the 2005 Incentive Stock Plan. The maximum number of shares that may be issued pursuant to awards made under the Plan to any individual in any calendar year is 833,334.

As of March 19, 2019, a total of 275,752 shares have been issued under the 2005 Incentive Stock Plan and options to purchase an additional 6,654,748 shares have been granted. The outstanding options had a weighted average exercise price of \$3.08. As of March 19, 2019, we had 1,402,833 remaining shares available for issuance under the 2005 Incentive Stock Plan (assuming all of the shares subject to outstanding

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options are issued). If the Plan Amendment is approved, a total of 7,402,833 shares of our common stock will remain available for future issuance under the 2005 Incentive Stock Plan (assuming all outstanding options become vested and are settled in shares). To date, no other shares of restricted stock or other non-option forms of award have been granted under the 2005 Incentive Stock Plan. As of March 19, 2019, the fair market value of our common stock was \$0.69 per share.

### Eligibility

Awards under the 2005 Incentive Stock Plan may be granted to any of our directors, officers, employees or consultants. ISOs may only be issued to our employees. There are currently approximately fifty-two employees, seven non-employee directors and seven consultants eligible to be granted options under the 2005 Incentive Stock Plan.

### Administration of the 2005 Incentive Stock Plan

The 2005 Incentive Stock Plan is administered by both the compensation committee and the Board of Directors. The administrator has the authority to (a) grant, in its discretion, ISOs or nonstatutory options, other stock awards or restricted stock purchase offers; (b) determine in good faith the fair market value of the shares covered by any Grant; (c) determine which eligible persons shall receive grants and the size and terms of such grants; (d) construe and interpret the 2005 Incentive Stock Plan; (e) promulgate, amend and rescind rules and regulations relating to the 2005 Incentive Stock Plan; (f) amend any outstanding grant (provided a participant consents, if such consent is required); and (g) make all other determinations necessary or advisable for the 2005 Incentive Stock Plan's administration.

### Terms and Conditions of Awards under the 2005 Incentive Stock Plan

Subject to the provisions of the 2005 Incentive Stock Plan, the compensation committee, acting in its discretion, has the responsibility and full power and authority to select the persons to whom awards will be made, to prescribe the terms and conditions of each award and make amendments thereto, to construe, interpret and apply the provisions of the 2005 Incentive Stock Plan and of any agreement or other instrument evidencing an award and to make any and all determinations and take any and all other actions as it deems necessary or desirable in order to carry out the 2005 Incentive Stock Plan.

**Stock Options.** Stock options shall have such vesting and other terms and conditions as the compensation committee, acting in its discretion, may determine. The exercise price per share of our common stock covered by an option may not be less than 100% of the fair market value per share on the date of grant (110% of fair market value in the case of ISOs granted to an employee who is a 10% stockholder within the meaning of the Internal Revenue Code). The compensation committee, acting in its sole discretion, may permit the exercise price to be paid in whole or in part in cash or by check, by means of a broker assisted cashless exercise procedure, or by delivery to the Company unrestricted shares of previously owned shares of our common stock. The compensation committee may also permit a "net" exercise pursuant to which the Company withholds option shares with a fair market value equal to the exercise price. Unless sooner terminated, an option shall automatically expire on the tenth anniversary of the date it is granted (the fifth anniversary in the case of an ISO granted to an employee who is a 10% stockholder). Unless the terms of an option provide otherwise, the non-vested portion of an option will be forfeited upon termination of a participant's employment or other service, and the vested portion will terminate if and to the extent it is not exercised within 90 days after termination of employment (one year if the termination is due to death or disability). However, if a participant's employment or service is terminated for "cause" (as defined in the 2005 Incentive Stock Plan), the participant's outstanding options will terminate immediately, whether or not otherwise vested. If we are sold or merge with another company, outstanding options may be converted into economically equivalent options of the acquiring or successor company. In general, if the outstanding options are not so converted, then vesting of the options may be accelerated and any outstanding options that are not exercised will terminate immediately before the sale or merger is completed. Options are not transferable, except by will or by the laws of descent and distribution.

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**Restricted Stock and Other Stock Awards.** In general, restricted stock is common stock that is subject to transfer restrictions and forfeiture conditions as determined by the compensation committee. The grant of such award may, but need not, be subject to a requirement pay a specified price for such award. Restricted stock awards may vest on the basis of the satisfaction of performance conditions established by the compensation committee and/or on completion of a specified period of service. The compensation committee may provide that participants who receive restricted stock awards are entitled to vote their shares of restricted stock and/or receive the dividends paid on the shares.

In general, a deferred stock award is a right to receive shares of our common stock (or cash equal to the value of such shares) in the future, subject to such conditions as the compensation committee may determine. Vesting of deferred stock awards may be subject to the satisfaction of performance conditions established by the compensation committee and/or to the continuing performance of services over a specified period of time. The holder of a deferred stock award has no rights as a stockholder with respect to the underlying shares unless and until the award vests and the award is settled in shares. Settlement will occur as soon as practicable after the date such award becomes earned and vested, but no later than March 15 of the following year. However, the compensation committee may provide for the payment of dividend equivalents in the form of cash or shares in an amount equal to the dividends that would have been payable if the shares were outstanding, and may subject the payment of such dividend equivalents to the vesting and other conditions applicable to the original shares covered by the award.

Unless a stock award agreement or restricted stock purchase offer specifies otherwise, the Board of Directors or the compensation committee, as applicable, may cancel any unexpired, unpaid, or deferred stock award, or stock purchase offers at any time if the participant is not in compliance with the applicable provisions of the 2005 Incentive Stock Plan, stock award agreement or restricted stock purchase offer. In general, upon the cessation of employment or service to the Company by the participant, including as a result of retirement but excluding death and disability, such stock awards and restricted stock purchase offers are cancelled immediately. Such stock awards are not assignable or transferable, except in the event of the death or disability of a participant or at the discretion of the Board of Directors or compensation committee in certain situations.

### **Adjustments Upon Recapitalization**

Subject to any required action by stockholders, the number of shares of common stock covered by each outstanding option, the maximum number of shares that may be issued pursuant to awards made under the Plan to any individual in any calendar year, and the exercise price per share covered by any option shall be proportionately adjusted for any increase or decrease in the number of shares of common stock resulting from any stock split, stock dividend, combination, subdivision or reclassification of shares, or the payment of a stock dividend, or any other increase or decrease in the number of such shares affected without receipt of consideration by the Company.

### **Reorganization**

In the event of a proposed dissolution or liquidation of the Company, a merger or consolidation in which the Company is not the surviving entity, or a sale of all or substantially all of the assets or capital stock of the Company (collectively, a "Reorganization"), unless otherwise provided by the Board of Directors, options shall terminate. If the holder of unexercised options does not receive an offer from the surviving entity in such Reorganization as a substitute for such options, the Board of Directors may provide a right to such option holders to exercise such options in whole before the earlier of the consummation of the Reorganization or the remaining term of such options, without regard to the restrictions on the exercisability of installments in the 2005 Incentive Stock Plan.

In the event of any change in the outstanding stock by reason of a Reorganization or similar event, the Board of Directors or the compensation committee may adjust proportionally the number of shares (i) reserved under the 2005 Incentive Stock Plan, (ii) issuable under awards to any individual in any calendar year, (iii) available for ISOs or nonstatutory options, and (iv) covered by stock awards and restricted stock purchase offers. The Board of Directors may also adjust proportionally the stock prices related to outstanding grants and the appropriate fair market value and other price determinations for such grants.

**TABLE OF CONTENTS****Amendment and Termination**

Our Board of Directors may terminate the 2005 Incentive Stock Plan or amend it in any respect, except that stockholder approval shall be required for any amendment that would (a) increase the number of shares subject to the 2005 Incentive Stock Plan, (b) decrease the price at which awards may be granted, (c) materially increase the benefits to participants, or (d) change the class of persons eligible to receive awards. However, participant consent will be required with respect to an amendment that would alter or impair the participant's rights and obligations under any outstanding award. If the proposed Amendment is approved by stockholders, the total number of shares of common stock that can be issued under the 2005 Incentive Stock Plan will increase from 8,333,333 shares to 14,333,333 shares. If the proposal is not approved, the 2005 Incentive Stock Plan will continue in effect in accordance with its terms. Unless sooner terminated, the 2005 Incentive Stock Plan shall terminate on January 25, 2025.

**New Plan Benefits**

If the amendment to the 2005 Incentive Stock Plan is approved by stockholders, awards under the 2005 Incentive Stock Plan will be determined by the compensation committee in its discretion, and it is, therefore, not possible to predict the number, name or positions of persons who will benefit from the 2005 Incentive Stock Plan, if it is approved by stockholders, or the terms of any such benefits. However, the following table sets forth information with respect to awards granted under the 2005 Incentive Stock Plan during the 2018 fiscal year.

Name and Principal Position	Dollar value (\$)	Number of Options
James A. Hayward Chairman, President and CEO	213,327	250,000
Beth M. Jantzen CFO	85,330	100,000
Judith Murrah CIO and Secretary	127,996	150,000
Executive group	426,653	500,000
Non-executive director group	643,966	556,147
Non-executive officer employee group	533,315	465,327

In accordance with SEC rules, the following table lists all options granted to the individuals and groups indicated below since the adoption of the 2005 Incentive Stock Plan. The option awards listed below for the covered executives and directors include the option awards listed in the executive and director compensation tables beginning on pages [33](#) and [37](#), respectively, of this proxy statement and are not additional awards.

Persons or Groups of Persons	Options
James A. Hayward Chairman, President and CEO	2,291,668
Beth M. Jantzen CFO	292,501
Judith Murrah CIO and Secretary	372,501
All current executive officers as a group	2,956,570
All current directors who are not executive officers as a group	1,346,041
Each nominee for election as a director	1,132,864
Each associate of any such director, executive officer or nominees	—
Each other person who received or is to receive 5% of such options, warrants or rights	—
All employees, including all current officers who are not executive officers as a group	1,880,503





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### Certain Federal Income Tax Consequences

#### Stock Options

The grant of a stock option under the 2005 Incentive Stock Plan is not a taxable event to the participant for federal income tax purposes. In general, in the case of an option that is not an ISO, a participant will realize ordinary income when the option is exercised equal to the then difference between the value of the shares at the time of exercise and the exercise price, and we will be entitled to a corresponding deduction. Any remaining gain will be capital gain on a subsequent disposition of the shares. In the case of an ISO, a participant will generally not realize taxable income upon exercise of the option, except the exercise may trigger alternative minimum tax. The participant will realize taxable income upon the disposition of shares acquired by the exercise of an ISO. If the disposition occurs within two years from the option grant date or one year from the exercise date, then any gain on the disposition will be ordinary income to the extent of the difference between the value of the shares on the date of exercise and the exercise price, and we will be entitled to a corresponding deduction. Any remaining gain will be capital gain. If the disposition occurs after both of those holding periods are met, any gain on a subsequent disposition of the shares will be long-term capital gain and we will not be entitled to a deduction.

#### Other Stock Awards

A participant who receives restricted stock under a restricted stock award will generally realize ordinary income equal to the fair market value of the shares at the time the restrictions lapse (i.e., when the shares become vested), and we will generally be entitled to a corresponding deduction. A participant may make an “early income election” within 30 days of the receipt of restricted shares of common stock, in which case the participant will realize ordinary income on the date the restricted shares are received equal to the difference between the fair market value of the shares on that date and the amount, if any, paid for the shares. If the early election is made, no income will be realized by the participant if and when the shares become vested and any gain realized upon a subsequent sale of the shares will be capital gain. Our deduction will generally be limited to the amount of ordinary income realized by the participant as a result of the early income election.

A participant who receives a deferred stock award will generally realize ordinary income as and when the vesting conditions of the award are met and the shares covered by the vested award are delivered to the participant, in an amount equal to the then fair market value of the shares, and, in general, we will be allowed a corresponding deduction. Other awards generally will result in ordinary income to the participant at the later of the time of delivery of cash or shares. We generally will be entitled to a tax deduction equal to the amount recognized as ordinary income by the participant in connection with an award, and we will not be entitled to a tax deduction relating to amounts that represent capital gain to a participant.

Section 162(m) of the Internal Revenue Code imposes an annual \$1 million limit on the amount of compensation that may be deducted with respect to the named executive officers of the Company. The compensation committee reserves the discretion to grant awards which will be subject to the \$1 million annual deduction limitation.

THE ABOVE SUMMARY PERTAINS SOLELY TO CERTAIN U.S. FEDERAL INCOME TAX CONSEQUENCES ASSOCIATED WITH AWARDS MADE UNDER THE 2005 INCENTIVE STOCK PLAN AND DOES NOT PURPORT TO BE COMPLETE. THE SUMMARY DOES NOT ADDRESS ALL FEDERAL INCOME TAX CONSEQUENCES AND IT DOES NOT ADDRESS STATE, LOCAL AND NON-U.S. TAX CONSIDERATIONS.

#### Vote Required

The affirmative vote of a majority of the outstanding shares of our Common Stock present in person or represented by proxy at the Annual Meeting and entitled to vote is required for the approval of Proposal No. 2. Broker non-votes, if any, with respect to this matter will be treated as neither a vote “for” nor a vote “against” the matter and will not be counted in determining the number of votes necessary for approval (although they will be counted in determining if a quorum is present). However, abstentions will be considered in determining the total number of votes required to attain a majority of the shares present in

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person or represented by proxy at the meeting entitled to vote. Accordingly, an abstention from voting by a stockholder present in person or represented by proxy at the meeting has the same legal effect as a vote “against” the matter because it represents a share present in person or represented by proxy at the meeting and entitled to vote, thereby increasing the number of affirmative votes required to approve this proposal. It is intended that the proxy in the form presented will be voted, unless otherwise indicated, “FOR” Proposal No. 2. If no instructions are indicated, the shares will be voted “FOR” Proposal No. 2.

The Board of Directors of Directors unanimously recommends that stockholders vote to approve the amendment of the 2005 Incentive Stock Plan to increase the number of shares of our common stock that can be issued pursuant thereto from 8,333,333 to 14,333,333, by voting “FOR” Proposal No. 2.

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PROPOSAL NO. 3 —

NON-BINDING ADVISORY APPROVAL OF THE COMPENSATION  
OF THE COMPANY'S NAMED EXECUTIVE OFFICERS

We are providing our stockholders the opportunity to vote to approve, on a non-binding advisory basis, the compensation of our “named executive officers” disclosed in this Proxy Statement in accordance with the SEC’s rules. This proposal, which is commonly referred to as “say-on-pay,” is required under Section 14A of the Exchange Act, which was added by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. As indicated in this Proxy Statement under the heading “Executive Compensation,” our “named executive officers” for the most recently completed fiscal year consist of our (i) President and Chief Executive Officer, (ii) Chief Financial Officer, and (iii) Chief Information Officer and Secretary.

Our executive compensation programs are designed to attract, motivate, and retain our executive officers, who are critical to our success, as more fully described in the “Executive Compensation” section of this Proxy Statement. Under these programs, as approved by our compensation committee, our named executive officers are rewarded for the achievement of our near-term and longer-term financial and strategic goals, for driving corporate financial performance and stability and for increasing stockholder value. The programs contain elements of both cash and equity-based compensation.

The “Executive Compensation” section beginning on page 29 describes in detail our executive compensation programs and the decisions made by our compensation committee and our Board of Directors with respect to the fiscal year ended September 30, 2018. As discussed in those disclosures, we believe that our compensation program provides a competitive overall compensation that is designed to attract and retain top performers. To achieve this goal, our compensation program is structured to:

- provide total compensation and compensation elements that are competitive with those companies that are competing for available employees;
- hold our executive officers accountable for results over the long term and maintain integrity in all of the business dealings of our executive officers;
- align the interest of our executives with our stockholders;
- reward exceptional performance by individual employees;
- provide a mix of compensation that offers (i) a meaningful base compensation, with a potential to earn additional amounts based on achievement of corporate and personal goals, and (ii) the opportunity to share in the long-term growth of our company through equity compensation; and
- establish a clear connection between rewards and performance.

Our Board of Directors believes this link between compensation and the achievement of our near- and long-term business goals has helped drive our performance over time. At the same time, we believe our program does not encourage excessive risk-taking by management.

This proposal is not intended to address any specific item of compensation, but rather the overall compensation of our named executive officers and the philosophy, policies and practices described under “Executive Compensation.” Our Board of Directors is asking stockholders to indicate their support for the compensation of our named executive officers as described in this Proxy Statement by casting a non-binding advisory vote “FOR” the following resolution:

RESOLVED, that the Company's stockholders hereby approve, on a non-binding advisory basis, the compensation paid to the Company's named executive officers, as disclosed pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the compensation tables and any related material disclosed in the Company's Proxy Statement.

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As an advisory vote, this proposal is not binding. The outcome of this advisory vote will not affect any compensation already paid or awarded to any named executive officer and does not overrule any decision by us or our Board of Directors (or any committee thereof) or create or imply any change to our fiduciary duties or the fiduciary duties of our Board of Directors (or any committee thereof). However, our compensation committee and Board of Directors value the opinions expressed by our stockholders in their vote on this proposal and will consider the outcome of the vote when making future compensation decisions for named executive officers.

**Vote Required**

The affirmative vote of a majority of the outstanding shares of our Common Stock present in person or represented by proxy at the Annual Meeting and entitled to vote is required for the approval of Proposal No. 3. Broker non-votes, if any, with respect to this matter will be treated as neither a vote “for” nor a vote “against” the matter and will not be counted in determining the number of votes necessary for approval (although they will be counted in determining if a quorum is present). However, abstentions will be considered in determining the total number of votes required to attain a majority of the shares present in person or represented by proxy at the meeting entitled to vote. Accordingly, an abstention from voting by a stockholder present in person or represented by proxy at the meeting has the same legal effect as a vote “against” the matter because it represents a share present in person or represented by proxy at the meeting and entitled to vote, thereby increasing the number of affirmative votes required to approve this proposal. It is intended that the proxy in the form presented will be voted, unless otherwise indicated, “FOR” Proposal No. 3. If no instructions are indicated, the shares will be voted “FOR” Proposal No. 3.

The Board of Directors unanimously recommends that stockholders vote to approve, on a non-binding advisory basis, the compensation of our named executive officers by voting “FOR” Proposal No. 3.

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PROPOSAL NO. 4 —

NON-BINDING ADVISORY APPROVAL OF THE FREQUENCY OF THE STOCKHOLDER VOTE ON THE  
COMPENSATION OF THE COMPANY’S NAMED EXECUTIVE OFFICERS

In this Proposal No. 4, we are asking our stockholders to cast a non-binding advisory vote regarding the frequency of future executive compensation advisory votes. Stockholders may vote for a frequency of every one, two, or three years, or may abstain. In Proposal No. 3, we are providing our stockholders the opportunity to vote to approve, on a non-binding advisory basis, the compensation of our “named executive officers” disclosed in this Proxy Statement. Section 14A of the Exchange Act requires that, at least once every six years, stockholders be given the opportunity to vote regarding how often the advisory vote on executive compensation should be held. Our Board of Directors will take into consideration the outcome of this vote in making a determination about the frequency of future executive compensation advisory votes. However, our Board of Directors may decide that it is in the best interests of our stockholders and the Company to hold the advisory vote to approve executive compensation more or less frequently. At our 2013 annual meeting of stockholders, the majority of stockholders voted to advise us to include a say-on-pay proposal every three years, and the Board of Directors determined that the Company will hold an advisory say-on-pay vote every three years. Our Board of Directors believes that stockholders should continue to have the opportunity to vote on the compensation of our named executive officers every three years. While parts of our compensation programs are designed to incentivize our employees on a long-term basis, we review our executive compensation programs annually, and we describe those programs to our stockholders in our proxy statement each year. Conducting an advisory vote on executive compensation every year or every two years does not give our stockholders sufficient time to evaluate the effectiveness of our long-term compensation programs. We believe that a three-year cycle will provide our stockholders sufficient time to evaluate the effectiveness of both our short- and long-term compensation programs.

Our board of directors values the opinions expressed by stockholders and will consider implementing the frequency which receives the greatest level of support from our stockholders.

Vote Required

On this non-binding matter, a stockholder may vote to set the frequency of the say-on-pay vote to occur every year, every two years, or every three years, or the stockholder may vote to abstain. The choice among those four choices that receives the highest number of votes will be deemed the choice of the stockholders.

The Board of Directors unanimously recommends that stockholders vote to hold advisory votes on the compensation of the Company’s named executive officers “EVERY THREE YEARS”.

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## PROPOSAL NO. 5 —

RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC  
ACCOUNTING FIRM

Our Board of Directors has appointed Marcum LLP (“Marcum,” the “principal accountant” or the “independent accountant”) as the independent registered public accounting firm to audit our consolidated financial statements as of and for the fiscal year ending September 30, 2019. Marcum has been our independent registered public accounting firm since it was appointed on June 23, 2014 to audit our consolidated financial statements for the fiscal year ended September 30, 2014. Since that date, Marcum has also provided us certain tax and other audit-related services. The Board of Directors has directed that management submit the selection of our independent registered public accounting firm for ratification by the stockholders at the Annual Meeting. Representatives of Marcum LLP are expected to be present at the Annual Meeting, in person or telephonically, will have an opportunity to make a statement if they so desire, and will be available to respond to appropriate questions. Notwithstanding its selection, the Board of Directors, in its discretion, may appoint another independent registered public accounting firm at any time during the year if the Board of Directors believes that such a change would be in our and our stockholders’ best interests. If the appointment is not ratified by our stockholders, the Board of Directors may reconsider whether it should appoint another independent registered public accounting firm.

## Audit and Other Fees

The following table sets forth fees billed to us by our current independent auditors during the fiscal years ended September 30, 2018 and 2017 for: (i) services rendered for the audit of our annual financial statements and the review of our quarterly financial statements, (ii) services by our auditor that are reasonably related to the performance of the audit or review of our financial statements and that are not reported as Audit Fees, (iii) services rendered in connection with tax compliance, tax advice and tax planning, and (iv) all other fees for services rendered.

## Marcum LLP

	Fiscal year ended September 30, 2018	Fiscal year ended September 30, 2017
(i) Audit Fees	\$ 192,955	\$ 169,157
(ii) Audit Related Fees	—	—
(iii) Tax Fees	29,244	12,713
(iv) All Other Fees	—	—
Total Fees	\$ 222,199	\$ 181,870

**Audit Fees** — Consists of fees billed for professional services rendered for the audit of our consolidated financial statements, review of the interim consolidated financial statements included in quarterly reports, and services that are normally provided by our independent auditors in connection with statutory and regulatory filings or engagements, including registration statements.

**Audit Related Fees** — Consists of fees billed for assurance and related services that are reasonably related to the performance of the audit or review of our consolidated financial statements and are not reported under “Audit Fees,” such as accounting consultation and audits in connection with acquisitions.



Tax Fees — Consists of fees billed for professional services for tax compliance, tax advice and tax planning.

All Other Fees — Consists of fees for products and services other than the services reported above.

The Board of Directors has considered whether the provision of non-audit services is compatible with maintaining the principal accountant's independence and has determined that independence has been maintained.

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### Audit Committee Report

The audit committee of the Board of Directors (the “audit committee”) operates under a written charter approved by the Board of Directors, which provides that its responsibilities include assisting the Board of Directors in monitoring the integrity of the Company’s financial statements, the qualifications and independence of the Company’s independent auditors, the performance of the Company’s internal audit function and independent auditors and the compliance by the Company with legal and regulatory requirements. For more information on the audit committee, see “Management and Corporate Governance — Board of Directors Structure and Committee Composition — Audit Committee.”

The audit committee oversees the Company’s financial reporting process on behalf of the Board of Directors.

Management is responsible for the Company’s internal controls, financial reporting process, and compliance with laws and regulations and ethical business standards. Marcum was responsible for performing an independent audit of the Company’s consolidated financial statements for the fiscal year ending September 30, 2018 in accordance with the standards of the Public Company Accounting Oversight Board of Directors (United States) (the “PCAOB”). The audit committee’s main responsibility is to monitor and oversee this process.

The audit committee reviewed and discussed our audited consolidated financial statements as of and for the fiscal year ended September 30, 2018 with management. The audit committee discussed with Marcum the matters required to be discussed by PCAOB Auditing Standard No. 16. The audit committee has received the written disclosures and the letter from the independent accountant required by applicable requirements of the PCAOB regarding the independent accountant’s communications with the audit committee concerning independence, and has discussed with the independent accountant the independent accountant’s independence.

The audit committee considered any fees paid to Marcum for the provision of non-audit related services and does not believe that these fees compromised Marcum’s independence in performing the audit.

Based on the review and discussions referred to above in this report, the audit committee recommended to the Board of Directors that such audited financial statements be included in the Company’s Annual Report on Form 10-K for the fiscal year ended September 30, 2018 for filing with the SEC.

### THE AUDIT COMMITTEE

John Bitzer, III (Chairperson)

Charles S. Ryan

Yacov Shamash

### Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Auditors

The audit committee has adopted a policy and procedures for the pre-approval of audit and non-audit services provided by the independent auditors. These services may include audit services, audit-related services, tax services and other services. Pre-approval is generally provided for up to one year and any pre-approval is detailed as to the particular service or category of services and is generally subject to a specific budget. The independent auditors and management are required to periodically report to our audit committee regarding the extent of services provided by the independent auditors in accordance with this pre-approval, and the fees for the services performed to date. The audit committee may also pre-approve particular services on a case-by-case basis.

### Vote Required

The affirmative vote of a majority of the outstanding shares of our common stock present in person or represented by proxy at the Annual Meeting and entitled to vote on this proposal is required for the ratification of the appointment of Marcum as our independent registered public accounting firm for the fiscal year ending September 30, 2019.

Abstentions will be considered in determining the total number of votes required to attain a majority of the shares present in person or represented by proxy at the meeting entitled to vote. Accordingly, an abstention from voting by a stockholder present in person or represented

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by proxy at the meeting has the same legal effect as a vote “against” the matter because it represents a share present in person or represented by proxy at the meeting and entitled to vote, thereby increasing the number of affirmative votes required to approve this proposal. The ratification of the appointment of Marcum as our independent registered public accounting firm for the fiscal year ending September 30, 2019 is a discretionary item. Brokers, banks, and other nominees that do not receive voting instructions from beneficial owners of our common stock may generally vote on this proposal in their discretion. The Company intends that the proxy in the form presented will be voted, unless otherwise indicated, for the ratification of Marcum as our auditors for the fiscal year ending September 30, 2019. If no instructions are indicated on such proxy, the shares will be voted “FOR” the ratification of Marcum as our auditors for the fiscal year ending September 30, 2019.

The Board of Directors deems Proposal No. 5 “Ratification of Appointment of Independent Registered Accounting Firm” to be in our and our stockholders’ best interests and unanimously recommends a vote “FOR” approval thereof.

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### MANAGEMENT AND CORPORATE GOVERNANCE

#### Information Regarding the Board of Directors

##### Members

Our Board of Directors currently consists of eight members: James A. Hayward, John Bitzer, III, Robert B. Catell, Joseph D. Ceccoli, Charles S. Ryan, Yacov A. Shamash, Sanford R. Simon, and Elizabeth M. Schmalz Ferguson. Our Board of Directors has nominated the eight incumbent directors for re-election at the Annual Meeting. Please see “Proposal No. 1 — Election of Directors” for the names, ages and business experience of each of the Company’s director nominees for election at the Annual Meeting.

##### Director Independence

The Board of Directors has determined that currently and at all times during the fiscal year ended September 30, 2018, each of our directors other than Dr. Hayward — consisting of John Bitzer, III, Robert B. Catell, Joseph D. Ceccoli, Charles S. Ryan, Yacov A. Shamash, Sanford R. Simon, and Elizabeth M. Schmalz Ferguson — are and were “independent” as defined by the listing standards of Nasdaq, constituting a majority of independent directors on our Board of Directors as required by the rules of Nasdaq. The Board of Directors considers in its evaluation of independence whether any director has a relationship with us that would interfere with the exercise of independent judgment in carrying out his or her responsibilities of a director.

##### Board of Directors Leadership Structure and Role in Risk Oversight

Our Board of Directors does not have a policy on whether the same person should serve as both the Chief Executive Officer and Chairman of the Board of Directors or, if the roles are separate, whether the Chairman should be selected from the non-employee directors or should be an employee. The Board of Directors believes that Dr. Hayward’s dual role as both Chairman of the Board of Directors and Chief Executive Officer serves the best interests of both us and our stockholders. His combined role enables decisive leadership, ensures clear accountability, and enhances our ability to communicate our message and strategy clearly and consistently to our stockholders, employees, customers and suppliers. Dr. Hayward possesses detailed and in-depth knowledge of the issues, opportunities and challenges facing us and our business and is thus best positioned to develop agendas that ensure that the time and attention of the Board of Directors are focused on the most critical matters. This structure also enables our Chief Executive Officer to act as a bridge between management and the Board of Directors, helping both to act with a common purpose.

The Board of Directors appreciates that the advantages gained by having a single Chairman and Chief Executive Officer must be viewed in light of potential independence concerns. The Board of Directors considers, however, that we have adequate safeguards in place to address those concerns, including, for example, our Board of Directors consisting of a supermajority of independent directors. In addition, our audit, compensation and nominating committees, which oversee critical matters such as the integrity of our financial statements, the compensation of executive management, the selection and evaluation of directors, and the development and implementation of corporate governance policies, each consist entirely of independent directors.

Our risk management program is overseen by our Chief Executive Officer. Material risks are identified and prioritized by management, and each prioritized risk is referred to a Board of Directors committee or the full Board of Directors for oversight. For example, strategic risks are referred to the full Board of Directors while financial risks are referred to the audit committee. The Board of Directors regularly reviews information regarding our liquidity and operations, as well as the risks associated with each. Also, the compensation committee periodically reviews the most important risks to our business to ensure that compensation programs do not encourage excessive risk-taking and promote our goals and objectives.

**TABLE OF CONTENTS****Board of Directors Structure and Committee Composition**

In June 2008, our Board of Directors established a standing compensation committee (the “compensation committee”) and in September 2011, our Board of Directors established an audit committee and a nominating committee (the “nominating committee”). Each of the committees operates under a written charter adopted by the Board of Directors. All of the committee charters are available on our web site at [www.adnas.com/adnas\\_home/investors/](http://www.adnas.com/adnas_home/investors/) or by writing to Applied DNA Sciences, Inc., 50 Health Sciences Drive, Stony Brook, New York 11790, c/o Investor Relations. The information found on, or accessible through, our website is not incorporated into, and does not form a part of, this Proxy Statement or any other report or document we file with or furnish to the SEC.

During fiscal 2018, the Board of Directors held five formal meetings (including regularly scheduled and special meetings) and acted by unanimous written consent seven times. During fiscal 2018, each director attended at least 75% of all meetings of the Board of Directors during the time such director was a member of the Board of Directors and of all meetings of the committee or committees on which he served, with the exception of Mr. Bitzer. Directors are strongly encouraged to attend our annual meetings of stockholders. All directors then serving on the Board of Directors attended the Company’s annual meeting of stockholders held in 2018, with the exception of Mr. Simon and Ms. Schmalz Ferguson.

The membership of each of the audit committee, the compensation committee, and the nominating committee is composed, and was composed during the fiscal year ended September 30, 2018, entirely of independent directors. In addition, the members of the audit committee meet the heightened standards of independence for audit committee members required by SEC rules and NASDAQ rules. The committee membership and the responsibilities of each of the committees during the fiscal year ended September 30, 2018 are described below.

Name	Audit	Compensation	Nominating
James A. Hayward	—	—	—
John Bitzer, III (I)			
Robert B. Catell (I)	—	—	—
Joseph D. Ceccoli (I)	—		—
Charles S. Ryan (I)		—	—
Sanford R. Simon (I)	—	—	
Yacov A. Shamash (I)			
Elizabeth M. Schmalz Ferguson (I)	—	—	—

Chairperson

Member

(I)

Independent director

**Audit Committee**

Messrs. Bitzer (Chairperson), Ryan and Shamash served during the fiscal year ended September 30, 2018, and currently continue to serve, on the audit committee. The Board of Directors has determined that each member of the audit committee is independent within the meaning of the director independence standards of the company and NASDAQ as well as the heightened director independence standards of the SEC for audit committee members, including Rule 10A-3(b)(1) under the Exchange Act. The Board of Directors has also determined that each of the members of the audit committee is financially sophisticated and is able to read and understand consolidated financial statements and that Mr. Bitzer is an “audit committee financial expert” as defined in the Exchange Act. During fiscal 2018, the audit committee held five formal meetings.



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The composition and responsibilities of the audit committee and the attributes of its members, as reflected in the charter, are intended to be in accordance with applicable requirements for corporate audit committees. The audit committee charter will be reviewed, and amended if necessary, on an annual basis.

The audit committee assists the Board of Directors in fulfilling its oversight responsibility relating to our financial statements and the disclosure and financial reporting process, our system of internal controls, our internal audit function, the qualifications, independence and performance of our independent registered public accounting firm, compliance with our code of ethics and legal and regulatory requirements. The audit committee has the sole authority to appoint, retain, terminate, compensate and oversee the work of the independent registered public accounting firm, as well as to pre-approve all audit and non-audit services to be provided by the independent registered public accounting firm.

### Compensation Committee

Messrs. Bitzer, Ceccoli, and Shamash (Chairperson) served on the compensation committee during the fiscal year ended September 30, 2018. The compensation committee reviews and approves salaries and bonuses for all officers, reviews and approves directors' compensation, administers options outstanding under our stock incentive plan, provides advice and carries out the responsibilities required by SEC rules. The compensation committee believes that its processes and oversight should be directed toward attracting, retaining and motivating employees and non-employee directors to promote and advance our interests and strategic goals. As requested by the compensation committee, the Chief Executive Officer will provide information and may participate in discussions regarding compensation for other executive officers. The compensation committee does not utilize outside compensation consultants but considers other general industry information and trends if available. During fiscal 2018, the compensation committee held two formal meetings.

### Nominating Committee

Messrs. Shamash (Chairperson), Bitzer and Simon served during the fiscal year ended September 30, 2018, and currently continue to serve, on the nominating committee. The Board of Directors has determined that each member of the nominating committee is independent within the meaning of the director independence standards of the Company, NASDAQ and the SEC. The nominating committee did not hold any formal meetings during fiscal 2018.

The nominating committee is responsible for, among other things: reviewing Board of Directors composition, procedures and committees, and making recommendations on these matters to the Board of Directors; and reviewing, soliciting and making recommendations to the Board of Directors and stockholders with respect to candidates for election to the Board of Directors.

### Process for Identifying and Evaluating Nominees for the Board of Directors

**Director Qualifications.** The nominating committee has not formally established any specific, minimum qualifications that must be met by each candidate for the Board of Directors or specific qualities or skills that are necessary for one or more of the members of the Board of Directors to possess.

**Identifying Nominees.** The nominating committee has two primary methods for identifying director candidates (other than those proposed by our stockholders, as discussed below). First, on a periodic basis, the nominating committee will solicit ideas for possible candidates from a number of sources, including members of the Board of Directors, our executive officers and individuals personally known to the members of the Board of Directors. Second, the nominating committee is authorized to use its authority under its charter to retain at our expense one or more search firms to identify candidates (and to approve such firms' fees and other retention terms).

**Stockholder Candidates.** The nominating committee will consider candidates for nomination as a director submitted by stockholders. Although the nominating committee does not have a separate policy that addresses the consideration of director candidates recommended by stockholders, the Board of Directors does not believe that such a separate policy is necessary because our bylaws permit stockholders to nominate candidates and one of the duties set forth in the nominating committee charter is to consider

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director candidates submitted by stockholders in accordance with our bylaws. The nominating committee will evaluate individuals recommended by stockholders for nomination as directors according to the criteria discussed above and in accordance with our bylaws and the procedures described under “Stockholder Proposals and Nominations” below.

**Review of Director Nominees.** The nominating committee will evaluate any candidates recommended by stockholders against the same criteria and pursuant to the same policies and procedures applicable to the evaluation of candidates proposed by our directors, executive officers, third-party search firms or other sources. In evaluating proposed director candidates, the nominating committee may consider, in addition to any minimum qualifications and other criteria for Board of Directors membership approved by the Board of Directors from time to time, all facts and circumstances that it deems appropriate or advisable, including, among other things, the proposed director candidate’s understanding of our business and industry on a technical level, his or her judgment and skills, his or her depth and breadth of professional experience or other background characteristics, his or her independence, his or her willingness to devote the time and effort necessary to be an effective board member, and the needs of the Board of Directors. We do not have a formal policy with regard to the consideration of diversity in identifying director nominees. However, the Board of Directors believes that it is essential that its members represent diverse viewpoints, with a broad array of experiences, professions, skills, geographic representation and backgrounds that, when considered as a group, provide a sufficient mix of perspectives to allow the Board of Directors to best fulfill its responsibilities to the long-term interests of our stockholders. The nominating committee considers at least annually, and recommends to the Board of Directors suggested changes to, if any, the size, composition, organization and governance of the Board of Directors and its committees.

**Stockholder Proposals and Nominations.** In order for a stockholder to nominate a person for election as a director at the 2019 Annual Meeting of stockholders, you must provide written notice to Applied DNA Sciences, Inc., 50 Health Sciences Drive, Stony Brook, New York 11790, c/o Corporate Secretary. The notice of a proposed director nomination must provide information and documentation as required in our bylaws which, in general, require that the notice of a director nomination include the information about the nominee that would be required to be disclosed in the solicitation of proxies for the election of a director under federal securities laws; the nominee’s written consent to be named in the proxy statement as a nominee and to serve as a director if elected; a description of any transaction or arrangement during the last three years between the stockholder making the nomination and the nominee in which the nominee had a direct or indirect material interest; and a completed and signed questionnaire (after such form has been provided by the Company), representation and agreement. A copy of the bylaw requirements will be provided upon request to the Corporate Secretary at the address above.

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

Stockholders and other interested parties may make their concerns known confidentially to the Board of Directors or the independent directors by submitting a communication in an envelope addressed to the “Board of Directors,” a specifically named independent director or the “Independent Directors” as a group, in care of the Corporate Secretary. All such communications will be conveyed, as applicable, to the full Board of Directors, the specified independent director or the independent directors as a group.

### **Code of Ethics**

Our Board of Directors adopted a “code of ethics” as defined by regulations promulgated under the Securities Act and the Exchange Act (our “Code of Business Conduct and Ethics”) that applies to all of our employees, officers and directors, including those officers responsible for financial reporting. The Code of Business Conduct and Ethics is designed to codify the ethical standards that we believe are reasonably designed to deter wrong-doing and promote honest and ethical conduct.

We have established procedures to ensure that suspected violations of the Code of Business Conduct and Ethics may be reported anonymously. A current copy of our Code of Business Conduct and Ethics is available on our website at [www.adnas.com/adnas\\_home/investors/](http://www.adnas.com/adnas_home/investors/) . A copy may also be obtained, free of charge, from us upon a request directed to Applied DNA Sciences, Inc., 50 Health Sciences Drive, Stony



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Brook, New York 11790, c/o Investor Relations. We intend to disclose any amendments to or waivers of a provision of the Code of Business Conduct and Ethics granted to directors and officers by posting such information on our website available at [www.adnas.com](http://www.adnas.com) and/or in our public filings with the SEC.

**Executive Officers**

Our current executive officers, and their ages and positions as of March 19, 2019, are set forth below.

Dr. James A. Hayward, age 65, has been our Chief Executive Officer since March 17, 2006 and our President and the Chairman of the Board of Directors since June 12, 2007. He was previously our acting Chief Executive Officer since October 5, 2005. He also served as Acting Chief Financial Officer from August 20, 2013 through October 13, 2013. Dr. Hayward received his Ph.D. in Molecular Biology from the State University of New York at Stony Brook in 1983 and an honorary Doctor of Science from the same institution in 2000. His experience with public companies began with the co-founding of one of England's first biotechnology companies — Biocompatibles. Following this, Dr. Hayward was Head of Product Development for the Estee Lauder companies for five years. In 1990 he founded The Collaborative Group, a provider of products and services to the biotechnology, pharmaceutical and consumer-product industries based in Stony Brook, where he served as Chairman, President and Chief Executive Officer for 14 years. During this period, The Collaborative Group created several businesses, including The Collaborative BioAlliance, a contract developer and manufacturer of human gene products that was sold to Dow Chemical in 2002, and Collaborative Labs, a service provider and manufacturer of ingredients for skincare and dermatology that was sold to Engelhard (now BASF) in 2004. Dr. Hayward also serves on the board of directors for the Regents Council, Softheon Corporation and NeoMatrix Formulations, Inc.

Beth Jantzen, age 42, appointed as our Chief Financial Officer, effective February 15, 2015. Ms. Jantzen has held the position of Controller since May 2013. Prior to joining the Company, Ms. Jantzen was a senior manager at Marcum LLP, our independent registered accounting firm from January 2000 until June 23, 2014, where she managed multiple engagements and specialized in SEC policies, practices and procedures, including Sarbanes-Oxley compliance. Ms. Jantzen holds a B.S. in Accounting from the State University of New York at Binghamton and is also a Certified Public Accountant (CPA).

Ms. Judith Murrah, age 61, has been our Chief Information Officer since June 1, 2013 and our Secretary since December 22, 2017. Ms. Murrah is responsible for information technology strategy and implementation. Ms. Murrah was previously the Senior Director of Information Technology at Motorola Solutions, which had acquired her former firm, Symbol Technologies. Her role at Motorola Solutions included overseeing global IT program management office, financial and supplier operations and quality assurance. At Symbol, Ms. Murrah held leadership positions in product line management, global account sales, corporate and marketing communications and IT. Ms. Murrah holds an MBA from Harvard Business School, and a B.S. in Industrial Engineering from the University of Rhode Island. She is an author on twelve U.S. patents. Ms. Murrah is co-founder and President of non-profit ConnectToTech, a recognized leader in engaging students in science, technology, engineering and math disciplines. Ms. Murrah was named to 2005 and 2006 Top 50 Women of Long Island and received the inaugural 2001 Diamond Award for Long Island Women Leaders in Technology.

Our executive officers are elected by, and serve at the discretion of, our Board of Directors. There are no family relationships between any director, executive officer, or person nominated or chosen by us to become a director or executive officer.

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### EXECUTIVE COMPENSATION

#### Compensation Overview

Our compensation approach is necessarily tied to our stage of development as a company. We have historically been principally devoted to developing DNA embedded biotechnology security solutions, but have more recently also supplied DNA for use in in vitro medical diagnostics, preclinical biotechnology and preclinical drug and biologic development and manufacturing markets. We also have undertaken preliminary steps towards the development of drugs and biologics. We have necessarily limited the establishment of extensive administrative and operating infrastructure, and a formal executive compensation policy has not been established. We have a compensation committee of the Board of Directors that is responsible for all compensation matters of our directors and executive officers. The compensation of all our named executive officers is approved by our compensation committee, which in turn reviewed the recommendation of our Chief Executive Officer (except with respect to his own compensation). As discussed below, the recommendation of our Chief Executive Officer is largely discretionary, based on his subjective assessment of the particular executive. As we continue to grow, we expect that the specific direction, emphasis and components of our executive compensation program will continue to evolve. The compensation committee has overall responsibility for approving and evaluating our executive officers' compensation plans, policies and programs. Our compensation program is designed to employ best practices in executive compensation and consider all relevant regulatory guidance regarding sound incentive compensation policies. The remainder of this section provides a general summary of our compensation policies and procedures.

#### Our Executive Compensation Philosophy and Objectives

##### General

The fundamental purpose of our executive compensation program is to assist us in achieving our financial and operating performance objectives. Specifically, we attempt to tailor an executive's compensation to (1) retain and motivate the executive, (2) reward him or her upon the achievement of Company-wide, and individual performance, and (3) align the executive's interest with the creation of long-term stockholder value, without encouraging excessive risk taking. To that end, and within the context of the stage of our Company, we have compensated our named executive officers through a mix of base salary, equity-based incentives, and cash bonuses.

Our business model is based on our ability to establish long-term relationships with clients and to maintain our strong mission, client focus, entrepreneurial spirit and team orientation. We have sought to create an executive compensation package that balances short-term versus long-term components when considering cash bonuses and employee equity awards, in ways we believe are most appropriate to motivate senior management and reward them for achieving the following goals:

- Develop a culture that embodies a commitment for our business, creative contribution and a drive to achieve established goals and performance objectives;
- Provide leadership to the organization in such a way as to maximize the results of our business operations;
- Lead us by demonstrating forward thinking in the operation, development and expansion of our business;
- Effectively manage organizational resources to derive the greatest value possible from each dollar invested; and
- Take strategic advantage of the market opportunity to expand and grow our business and revenues.

We believe that having a compensation program designed to align executive officers to meet our business objectives and to reinforce excellent performance and accountability is the cornerstone to successfully implement and achieve our strategic plan. In determining the compensation of our executive officers, we are guided by the following key

principles:

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- Competition. Compensation should reflect the competitive marketplace, so we can retain, attract and motivate talented executives.

- Accountability for Business Performance. Compensation should be tied to financial performance, so that executives are held accountable through their compensation for contributions to the performance of our company as a whole as well as their performance of the business unit for which they are responsible.

- Accountability for Individual Performance. Compensation should be tied to the individual's performance to encourage and reflect individual contributions to our company's performance. We consider individual performance as well as performance of the business and responsibility areas that an individual oversees, and weigh these factors as appropriate in assessing a particular individual's performance.

- Alignment with Stockholder Interests. Compensation should be tied to our financial performance through equity awards to align executives' interests with those of our stockholders.

Our executive compensation structure not only aims to be competitive in our industry, but also to be fair relative to compensation paid to other professionals within our organization, relative to our short-term and long-term performance and relative to the value we deliver to our stockholders. We seek to maintain a performance-oriented culture and a compensation approach that rewards our executive officers when we achieve our goals and objectives, while putting at risk an appropriate portion of their compensation against the possibility that our goals and objectives may not be achieved.

The Chief Executive Officer is the only named executive officer with an employment agreement. In addition, there are no change in control, severance or noncompetition agreements with any other named executive officer, nor are we otherwise obligated to pay any named executive officers any amounts if there is a change in control of the Company or if such executive's employment with us terminates, except for the Chief Executive Officer, as described below in the section entitled "— Potential Payments upon Termination of Employment or a Change of Control."

### Determination of Executive Compensation Awards

The compensation committee establishes and monitors the basic philosophy governing the compensation of the Chief Executive Officer. On an annual basis, the compensation committee reviews the compensation of the Chief Executive Officer including incentive compensation plans and equity-based plans. Compensation decisions for all other of our executive officers are approved by our compensation committee, which in turn reviewed the recommendation of our Chief Executive Officer. We have traditionally placed significant emphasis on the recommendation of our Chief Executive Officer with respect to the determination of executive compensation (other than his own), in particular with respect to the determination of base salary, cash incentive and equity incentive awards, and typically followed such recommendations as presented by our Chief Executive Officer. However, the compensation committee in reviewing such recommendations is free to make decisions that are contrary to the Chief Executive Officer's recommendations. As we continue to grow, we intend to make the transition to have our compensation committee be solely responsible for administering our executive compensation program, although we expect to continue to rely, in part, upon the advice and recommendations of our Chief Executive Officer (other than with respect to his own compensation), particularly with respect to those executive officers that report directly to him. The compensation committee's composition and oversight of our executive compensation program is described in more detail above in the section entitled "— Compensation Committee."

For purposes of determining our executive officer compensation in the fiscal year ended September 30, 2018 and in prior fiscal years, we considered the following factors: our understanding of the amount of compensation generally paid by similarly situated companies to their executives with similar roles and responsibilities; the roles and responsibilities of our executives; the individual experience and skills of, and expected contributions from, our

executives; the amounts of compensation being paid to our other executives; our executives' historical compensation at our Company; an assessment of the professional effectiveness and capabilities of the executive officer; and the performance of the executive officer against the corporate and other scorecards used to determine incentive compensation. While we have not used any formula or formal benchmarking to determine compensation based on these factors, we have placed the

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most emphasis in determining compensation on our understanding of the amount of compensation generally paid by similarly situated companies to their executives with similar roles and responsibilities and the subjective assessment of the professional effectiveness and capabilities of the executive officer. Our understanding of the amount of compensation generally paid by similarly situated companies was based on our compensation committee's and our Chief Executive Officer's own business judgment and collective experience in such matters.

### Base Salary

Our compensation committee sets the Chief Executive Officer's base salary annually in accordance with the terms of his employment agreement (provided that unless otherwise consented to by the Chief Executive Officer, any change by the compensation committee may increase, but not decrease, the Chief Executive Officer's annual rate of base salary). Dr. Hayward's annual base salary was voluntarily reduced by \$100,000 in fiscal 2016. Subject to the Company reaching certain financial targets, Dr. Hayward will receive certain bonuses. During 2017, Mr. Hayward's annual base salary was voluntarily reduced by an additional \$50,000. For more information, see "— Changes to Compensation of Executive Officers" and "Employment Agreement with Dr. James A. Hayward." The base salary for each of the other named executive officers is reviewed annually by the Chief Executive Officer and any adjustments recommended by him are subject to the review and approval by the compensation committee. Adjustments to base salary are based upon a review of a variety of factors, including the following:

- individual and Company performance, measured against quantitative and qualitative goals, such as our growth, revenue, profitability and other matters;
- duties and responsibilities as well as the executive's experience; and
- the types and amount of each element of compensation to be paid to the named executive officer.

The current base salaries for our named executive officers eligible to receive an annual incentive bonus is as follows:

Dr. James A. Hayward	\$ 250,000
Beth M. Jantzen	\$ 240,000
Judith Murrah	\$ 240,000

### Cash Bonuses

The Chief Executive Officer is paid cash bonuses in accordance with the terms of his employment agreement as well as based on the discretion of the compensation committee. We pay discretionary cash bonuses to our other named executive officers, which are recommended by the Chief Executive Officer, although the final determination of such bonuses are made by the compensation committee. The cash bonuses, if any, which are determined after the end of each fiscal year and may be paid annually, are intended to recognize and reward those named executive officers who have contributed meaningfully to our performance for the prior year. Both personal and the Company's performance are factors that the compensation committee and Chief Executive Officer typically consider in deciding whether to award a cash bonus to a named executive officer and the amount of such bonus. No cash bonuses were paid to executive officers for the fiscal year ended September 30, 2018 due to the performance of the Company.

### Long-term Stock-Based Compensation

Our long-term compensation program has historically consisted solely of stock options. Option grants made to executive officers are designed to provide them with incentive to execute their responsibilities in such a way as to generate long-term benefit to us and our stockholders. Through possession of stock options, our executives participate in the long-term results of their efforts, whether by appreciation of our Company's value or the impact of business setbacks, either Company-specific or industry-based. Additionally, stock options provide a means of ensuring the retention of our executive officers, in that they are in most cases subject to vesting over an extended period of time.

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Stock options provide executives with a significant and long-term interest in our success. By only rewarding the creation of stockholder value, we believe stock options provide our executive officers with an effective risk and reward profile. Although it is our current practice to use stock options as our sole form of long-term incentive compensation, the compensation committee reviews this practice on an annual basis in light of our overall business strategy, existing market-competitive best practices and other factors.

Stock options are granted periodically and are subject to vesting based on the executive's continued employment. Historically we have granted our executive officers a combination of incentive stock options that vest over a period of time or stock options that are immediately exercisable.

Stock options are granted to our executive officers in amounts determined by the compensation committee in its discretion. Stock grants have not been formula-based, but instead have historically been granted taking into account a mixture of the following qualitative factors: the executive's level of responsibility; the competitive market for the executive's position; the executive's potential contribution to our growth; and the subjective assessment of the professional effectiveness and capabilities of these executives.

During the fiscal year ended September 30, 2018, Dr. Hayward, Ms. Jantzen, and Ms. Murrah, were granted 250,000, 100,000 and 150,000 options, respectively. These options vested immediately as cash bonuses were not paid to executives during the prior fiscal year. Subsequent to September 30, 2018, certain options of such executive officers were canceled and replaced with new options with a term of an additional five years. The combined term of these options is a total of 10 years for consistency with our current compensation practices, in which employee stock options are generally granted with a term of ten years.

### Benefits

We provide the following benefits to our executive officers on the same basis as the benefits provided to all employees:

- health and dental insurance;
- life insurance;
- short-and long-term disability; and
- 401(k) Plan (currently there is no employer matching)

These benefits are generally consistent with those offered by other companies and specifically with those companies with which we compete for employees.

### Changes to Compensation of Executive Officers

Effective March 15, 2018, the compensation committee approved a bonus of \$121,125 that would be payable to Dr. Hayward if and when the Company reaches \$3,000,000 in revenues for two consecutive quarters or \$12,000,000 in revenues for a fiscal year, provided that Dr. Hayward is still employed by the Company on such date (the "Revenue Bonus"). Effective May 2, 2018, the compensation committee increased the amount of the Revenue Bonus to \$403,623. Effective December 27, 2018, the compensation committee approved a bonus opportunity of \$150,000 for the calendar year ended December 31, 2019, that would be payable to Dr. Hayward under the same terms as described above.

**TABLE OF CONTENTS****Summary Compensation Table**

The following table sets forth the compensation of our principal executive officer, our principal financial officer and our other executive officers for the fiscal years ended September 30, 2018 and 2017. We refer to these executive officers as our “named executive officers.”

	Year	Salary (\$ (c))	Bonus (\$ (d))	Stock Awards (\$ (e))	Option Awards (\$ (f)(1))	All Other Compensation (\$ (i))	Total (\$ (j))
James A. Hayward Chairman, President and CEO	2018	250,000	—	—	213,327	18,000	481,327
	2017	281,730	—	—	245,790	18,000	545,520
Beth M. Jantzen CFO	2018	221,538	—	—	85,330	—	306,868
	2017	246,346	—	—	98,316	—	344,662
Judith Murrah CIO	2018	240,000	—	—	127,996	—	367,996
	2017	246,346	—	—	98,316	—	344,662

(1)

The amounts in column (f) represent the grant date fair value calculated in accordance with ASC 718 based on the Black Scholes value of the options on the grant date. Information concerning these amounts and the assumptions used to calculate these amounts are set forth in our Form 10-K for the fiscal year ended September 30, 2018 filed with the SEC on December 18, 2018 under the caption “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations — Equity Based Compensation.”

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

The following table shows information concerning outstanding equity awards as of September 30, 2018 held by the named executive officers.

Name	Option Awards		Option Exercise Price (\$)	Option Expiration Date
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable		
James A. Hayward	166,667(1)	—	3.60	6/30/2020
	666,667(2)	—	3.51	7/11/2021
	833,334(8)	—	5.82	10/17/2018
	175,000	—	2.86	12/21/2024
	25,000	25,000(3)	2.99	12/21/2025
	150,000	—	2.05	12/20/2026
	250,000	—	1.19	08/29/2028
	4,167(4)(5)	—	5.31	10/14/2018
	4,167(4)(5)	—	6.96	11/28/2018
Beth M. Jantzen	4,167(4)(6)	—	8.16	12/09/2018
	40,000(4)	—	2.86	12/21/2024
	22,500(9)	7,500	3.45	2/14/2025



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25,000	25,000(3)	2.99	12/21/2025
60,000(4)	—	2.05	12/20/2026
100,000	—	1.19	08/29/2028

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Name	Option Awards		Option Exercise Price (\$)	Option Expiration Date
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable		
Judith Murrah	33,334(7)	—	7.02	12/01/2018
	75,000	—	2.86	12/21/2024
	4,167(6)	—	8.16	12/09/2018
	25,000	25,000(3)	2.99	12/21/2025
	60,000	—	2.05	12/20/2026
	150,000	—	1.19	08/29/2028

(1)

On June 30, 2015, these options were canceled and replaced with new options with a term of an additional five years. The combined term of these options is a total of 10 years for consistency with our current compensation practices, in which employee stock options are generally granted for a term of 10 years. The price of our common stock was below the option exercise price at the time of such extension.

(2)

On July 11, 2018, these options were canceled and replaced with new options with a term of an additional three years. The combined term of these options is a total of 10 years for consistency with our current compensation practices, in which employee stock options are generally granted for a term of 10 years. The price of our common stock was below the option exercise price at the time of such extension.

(3)

25% of these options will vest and become exercisable each anniversary for the next four years, commencing on December 21, 2016, one year from the date of grant.

(4)

These options were granted to Ms. Jantzen for her service as Controller prior to her appointment as the Chief Financial Officer.

(5)

On October 31, 2018 and November 28, 2018, these options were canceled and replaced with new options with terms of an additional five years. The combined terms of these options are a total of 10 years for consistency with our current compensation practices, in which employee stock options are generally granted for a term of 10 years. The price of our common stock was below the option exercise price at the time of such extension.

(6)

On December 9, 2018, these options were canceled and replaced with new options with a term of an additional five years. The combined terms of these options are a total of 10 years for consistency with our current compensation practices, in which employee stock options are generally granted for a term of 10 years. The price of our common stock was below the option exercise price at the time of such extension.

(7)

On December 1, 2018, these options were canceled and replaced with new options with a term of an additional five years. The combined term of these options is a total of 10 years for consistency with our current compensation practices, in which employee stock options are generally granted for a term of 10 years. The price of our common stock was below the option exercise price at the time of such extension.

(8)

On October 17, 2018 these options were canceled and replaced with new options with terms of an additional five years. The combined terms of these options are a total of 10 years for consistency with our current compensation practices, in which employee stock options are generally granted for a term of 10 years. The price of our common stock was below the option exercise price at the time of such extension.

(9)

We granted 30,000 options to purchase our common stock at an exercise price of \$3.45 per share for ten years to Ms. Jantzen, effective February 15, 2015, with vesting at 25% each anniversary for the next four years commencing one year from the date of grant.

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**Option Exercises and Stock Vested**

During the fiscal year ended September 30, 2018, none of our named executive officers exercised options or acquired shares upon vesting of stock awards.

**Pension Benefits**

None of our named executive officers participates in or has account balances in qualified or non-qualified defined benefit plans sponsored by us.

**Nonqualified Defined Contribution Plans**

None of our named executive officers participates in or has account balances in non-qualified defined contribution plans maintained by us.

**Deferred Compensation**

None of our named executive officers participates in or has account balances in deferred compensation plans or arrangements.

**Employment Agreement with Dr. James A. Hayward**

The following is a discussion of our employment agreement with Dr. Hayward as of September 30, 2018 and, where indicated, compensation actions prior to such date.

On July 28, 2017, an employment agreement was entered into with the Company's Chief Executive Officer ("CEO"), effective July 1, 2017. The employment agreement provides that Dr. Hayward will be the Company's CEO and will continue to serve on the Company's Board of Directors. The initial term was from July 1, 2017 through June 30, 2018, with automatic one-year renewal periods. As of June 30, 2018, the employment agreement renewed for an additional year. Under the new employment agreement term, the CEO will be eligible for a special cash incentive bonus of up to \$800,000, \$300,000 of which is payable if and when annual revenue reaches \$8 million and \$100,000 of which would be payable for each \$2 million of annual revenue in excess of \$8 million, provided the CEO is still employed by the Company on such date(s). Pursuant to the employment agreement, the CEO's annual salary is \$400,000. Due to previous voluntary reductions of the CEO's annual salary, Dr. Hayward's base salary for the 2018 fiscal year was \$250,000.

The Board of Directors, acting in its discretion, may grant annual bonuses to the CEO. The CEO will be entitled to certain benefits and perquisites and will be eligible to participate in retirement, welfare and incentive plans available to the Company's other employees.

The agreement with the CEO also provides that if he is terminated before the end of the initial or a renewal term by the Company without cause or if the CEO terminates his employment for good reason, then, in addition to earned and unpaid salary, bonus and benefits, and subject to the delivery of a general release and continuing compliance with restrictive covenants, the CEO will be entitled to receive a pro rata portion of the greater of either (X) the annual bonus he would have received if employment had continued through the end of the year of termination or (Y) the prior year's bonus; salary continuation payments for two years following termination equal to the greater of (i) three times base salary or (ii) two times base salary plus bonus; Company-paid COBRA continuation coverage for 18 months post-termination; continuing life insurance benefits (if any) for two years; and extended exercisability of outstanding vested options (for three years from termination date or, if earlier, the expiration of the fixed option term). If termination of employment as described above occurs within six months before or two years after a change in control of the Company, then, in addition to the above payments and benefits, all of the CEO's outstanding options and other equity incentive awards will become fully vested and the CEO will receive a lump sum payment of the amounts that would otherwise be paid as salary continuation. In general, a change in control will include a 30% or more change in ownership of the Company.

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Upon termination due to death or disability, the CEO will generally be entitled to receive the same payments and benefits he would have received if his employment had been terminated by the Company without cause (as described in the preceding paragraph), other than salary continuation payments.

Effective March 15, 2018, the compensation committee, approved the Revenue Bonus of \$121,125 that would be payable to the CEO when the Company reaches \$3,000,000 in revenues for two consecutive quarters or \$12,000,000 in revenues for a fiscal year, provided that the CEO is still employed by the Company on such date. Effective May 2, 2018, the compensation committee of the Company's Board of Directors, increased the amount of the Revenue Bonus to \$403,623. Effective December 27, 2018, the compensation committee approved a bonus opportunity of \$150,000 for the calendar year ended December 31, 2019, that would be payable to Dr. Hayward under the same terms as described above.

**Potential Payments upon Termination of Employment or a Change of Control**

There is a change-in-control provision included in Dr. Hayward's employment agreement, and we are obligated to pay severance or other enhanced benefits to him upon termination of his employment. For additional information, see "Employment Agreement with Dr. James A. Hayward" above.

If Dr. Hayward's employment was terminated on September 30, 2018 by us without "cause" or by Dr. Hayward for "good reason" (in either case, other than in connection with a change in control), he would have been entitled to a base salary component of \$750,000 (three times his annual base salary) paid in equal installments over 2 years, extended exercisability of his outstanding vested options (for three years from termination date or, if earlier, the expiration of the fixed option term) and Company-paid COBRA continuation coverage for 18 months post-termination.

In the context of a "change in control" of the Company had it occurred on September 30, 2018, and within six months before or two years after such change in control and Dr. Hayward's employment was terminated by us without "cause" or by Dr. Hayward for "good reason", he would have been entitled to an estimated lump sum payment of \$750,000 (three times his annual base salary) and other benefits set forth in the preceding paragraph. In addition to the above payments and benefits, all of Dr. Hayward's outstanding options and other equity incentive awards would have become fully vested.

If a "change in control" of the Company occurred on September 30, 2018 and Dr. Hayward's employment was not terminated, then all of Dr. Hayward's outstanding options and other equity incentive awards would have become fully vested.

**Equity Compensation Plan Information**

Plan Category	No. of Shares to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants, and rights (b)	No. of Shares remaining available for future issuance under equity compensation plans (excluding securities reflected in column) (a)
Equity Compensation Plan Approved by Stockholders	6,183,214	\$ 3.13	1,353,466
Equity Compensation Plan Not Approved by Stockholders(1)	410,702	\$ 2.96	n/a
Total	6,593,916	\$ 3.12	1,353,466

(1)

Comprised of outstanding warrants to purchase 128,800, 163,720, 50,000, and 68,182, shares of our common stock issued as compensation to the underwriters in our November 2014, April 2015, November 2016 public offerings and our November 2016 PIPE, respectively.

Director Compensation: Fiscal 2018

During the fiscal year ended September 30, 2018, we did not provide any cash compensation to our non-employee directors for their service on our Board of Directors. On December 14, 2015, the Board of Directors approved the recommendation from the compensation committee that each of the non-employee

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directors shall annually receive, for as long as they are a member of the Board of Directors, a 10-year stock option, fully vested after one year, to purchase a number of shares of common stock having a fair value of \$75,000 as determined using the Black Scholes value, or as determined by the compensation committee. Additionally, the Board of Directors approved the recommendation from the compensation committee that stock options to purchase shares of our common stock having an aggregate fair value of \$50,000 using the Black Scholes value be granted to certain non-employee directors.

	Fees Earned or Paid in Cash (\$)	Stock Awards (\$)	Option Awards \$(1)	All Other Compensation (\$)	Total \$(1)(9)
Sanford R. Simon(6)	—	—	80,404	—	80,404
Yacov A. Shamash(2)(5)	—	—	94,704	—	94,704
John Bitzer, III(4)	—	—	81,304	—	81,304
Joseph D. Ceccoli(2)	—	—	87,500	—	87,500
Charles S. Ryan(4)	—	—	81,304	—	81,304
Robert C. Catell(2)	—	—	87,500	—	87,500
Elizabeth M. Schmalz Ferguson(2)(3)	—	—	131,250	—	131,250

(1)

A 10-year option to purchase 63,919 shares of our common stock was granted by the Board of Directors to each of the non-employee directors on March 15, 2018 at an exercise price of \$1.57 per share, with one year vesting.

(2)

A 10-year option to purchase an additional 10,653 shares of our common stock at an exercise price of \$1.57 per share was granted to each for Mr. Catell, Mr. Ceccoli, Ms. Schmalz Ferguson and Mr. Shamash on March 15, 2018, with one year vesting.

(3)

A 10-year option to purchase 37,286 shares of our common stock was granted by the Board of Directors to Ms. Schmalz Ferguson on March 15, 2018 at an exercise price of \$1.57 per share, with one year vesting.

(4)

A 10-year option to purchase 6,304 shares of our common stock was granted by the Board of Directors to each of Mr. Bitzer, and Mr. Ryan on March 15, 2018 at an exercise price of \$1.57 per share, with immediate vesting.

(5)

A 10-year option to purchase 7,204 shares of our common stock was granted by the Board of Directors to Mr. Shamash, on March 15, 2018 at an exercise price of \$1.57 per share, with immediate vesting.

(6)

A 10-year option to purchase 5,404 shares of our common stock was granted by the Board of Directors to Mr. Simon on March 15, 2018 at an exercise price of \$1.57 per share, with immediate vesting.

(7)

The amounts represent the grant date fair value calculated in accordance with ASC 718 based on the Black Scholes value of the options on the grant date. Information concerning these amounts and the assumptions used to calculate these amounts are set forth in our Form 10-K for the fiscal year ended September 30, 2018 filed with the SEC on

December 18, 2018 under the caption “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations — Equity Based Compensation.” As of September 30, 2018, Mr. Simon, Mr. Shamash, Mr. Bitzer, Mr. Ceccoli, Mr. Catell, Ms. Schmalz Ferguson and Mr. Ryan had total outstanding option awards (including warrants) of 242,362, 298,170, 313,204, 187,924, 152,830, 111,858 and 236,281 shares of our common stock, respectively.



**TABLE OF CONTENTS****CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS****Delabarta**

John Bitzer, III, one of our directors, is President and Chief Executive Officer of ABARTA, a private, third- and fourth-generation family holding-company, which owns Delabarta. On June 23, 2014, Delabarta purchased 7,275 shares of our common stock at a purchase price of \$6.87 per share for gross proceeds of \$50,000 in a private placement transaction. Delabarta also received 7,275 warrants to purchase shares of our common stock as part of this private placement transaction. In connection with the investment in the Company by Delabarta during July 2011, we agreed to use best efforts to nominate its designee, Mr. Bitzer, to the Board of Directors and elect Mr. Bitzer as a director within 30 days of the closing and to nominate and include Mr. Bitzer on the slate of nominees for the Board of Directors for election by stockholders at the annual meetings of stockholders for so long as Delabarta owns at least 2% of the outstanding shares of common stock.

**Other Relationships**

On June 28, 2017, our officers and directors purchased approximately \$545,000 of our common stock as part of a private placement in the dollar amounts listed below:

Name	Amount (\$)
James A. Hayward, Chief Executive Officer, President and Chairman of the Board of Directors	250,000
Yacov A. Shamash, Director	25,000
Delabarta, Affiliate of Director Mr. Bitzer	100,000
Robert B. Catell, Director	50,000
Joseph D. Ceccoli, Director	40,000
Beth M. Jantzen, Chief Financial Officer	5,000
Judith Murrah, Chief Information Officer	25,000
Charles S. Ryan, Director	25,000
Sanford R. Simon, Director	5,000
Elizabeth Schmalz Ferguson, Director	20,000

On August 31, 2018, we entered into a securities purchase agreement with certain investors, including Delabarta and William Montgomery, who subsequently became a 5% or greater stockholder, and certain of our officers and directors, pursuant to which we issued and sold an aggregate of \$1.65 million in principal amount of secured convertible notes (the "Notes") bearing interest at a rate of 6% per annum to persons in the amounts listed below. As of September 30, 2018, no principal and interest was due to be paid. As of March 19, 2019, \$1,699,500 remains outstanding.

Name	Amount (\$)
James A. Hayward Chief Executive Officer, President and Chairman of the Board of Directors	1,000,000
Yacov A. Shamash, Director	25,000
Delabarta, Affiliate of Director Mr. Bitzer	100,000
Robert B. Catell, Director	25,000
William Montgomery, 5% or greater stockholder	200,000
Judith Murrah, Chief Information Officer	25,000
Elizabeth Schmalz Ferguson, Director	10,000

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On November 29, 2018, we entered into a securities purchase agreement (“Purchase Agreement”), pursuant to which we issued and sold an aggregate of \$550,000 in principal amount of additional Notes. Dr. Hayward, our chairman, president and chief executive officer, purchased \$500,000 in principal amount of the Notes. As of March 19, 2019, \$550,000 remains outstanding.

The Notes are convertible, in whole or in part, at any time, at the option of the purchasers, into shares of our common stock, in an amount determined by dividing the principal amount of each Note, together with any and all accrued and unpaid interest, by the conversion price of \$2.50. We have the right to require the purchasers to convert all or any part of their Notes into shares of our common stock at a conversion price of \$2.50 if the price of our common stock remains at a closing price of \$3.50 or more for a period of twenty consecutive trading days.

Upon any Change in Control (as defined in the Notes), the purchasers have the right to require us to redeem the Notes, in whole or in part, at a redemption price equal to such Notes’ outstanding principal balance plus accrued interest.

The Notes contain certain events of default that are customarily included in financing of this nature. If an event of default occurs, the purchasers may require us to redeem the Notes, in whole or in part, at redemption price equal to such notes’ outstanding principal balance plus accrued interest.

The Notes bear interest at the rate of 6% per annum, payable semi-annually in cash or in kind, at our option, and are due and payable in full on August 30, 2021. Until the principal and accrued but unpaid interest under the Notes is paid in full, or converted into shares of common stock pursuant to their terms, our obligations under the Notes will be secured by a lien on substantially all assets of the Company and the assets of APDN (B.V.I.) Inc., our wholly-owned subsidiary (“APDN BVI”), in favor of Delaware Trust Company, as collateral agent for the purchasers pursuant to security agreements dated as of the date of the Purchase Agreement.

We also entered into a registration rights agreement, dated as of the date of the Purchase Agreement, with the purchasers, pursuant to which the Company has agreed to prepare and file a registration statement with the SEC to register under the Securities Act of 1933, as amended, resales from time to time of the common stock issued or issuable upon conversion or redemption of the Notes. We are required to file a registration statement within 60 days of receiving a demand registration request from holders of a majority of the outstanding principal balance of the Notes, and to cause the registration statement to be declared effective within 45 days (or 90 days if the registration statement is reviewed by the SEC).

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AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

The following table sets forth certain information regarding the shares of our common stock beneficially owned as of March 19, 2019, (i) by each person who is known to us to beneficially own 5% or more of the outstanding common stock, (ii) by each of the executive officers named in the table under “Executive Compensation” and by each of our directors and (iii) by all executive officers and directors as a group.

Unless otherwise indicated below, each person or entity has an address in care of our principal executive offices at 50 Health Sciences Drive, Stony Brook, New York 11790.

Name and Address of Beneficial Owner	Title of Class	Number of Shares Owned(1)(2)	Percentage of Class(3)
Executive Officers and Directors:			
James A. Hayward	Common Stock	5,144,562(4)	12.88%
Yacov A. Shamash	Common Stock	282,272(5)	*
John Bitzer, III	Common Stock	1,544,022(6)(7)	4.15%
Robert C. Catell	Common Stock	191,540(11)	*
Joseph D. Ceccoli	Common Stock	210,652(8)	*
Beth M. Jantzen	Common Stock	282,842(12)	*
Judith Murrah	Common Stock	385,961(13)	1.04%
Charles S. Ryan	Common Stock	227,382(6)	*
Sanford R. Simon	Common Stock	212,149(9)	*
Elizabeth Schmalz Ferguson	Common Stock	127,342(14)	*
All directors and officers as a group (10 persons)	Common Stock	8,608,724(10)	20.46%
5% Stockholder:			
William W. Montgomery	Common Stock	5,313,300(15)	14.39%

\*

indicates less than one percent

(1)

Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to the shares shown. Except as indicated by footnote and subject to community property laws where applicable, to our knowledge, the stockholders named in the table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them. A person is deemed to be the beneficial owner of securities that can be acquired by such person within 60 days upon the exercise of options, warrants or convertible securities (in any case, the “Currently Exercisable Options”).

(2)

Does not include the remaining unvested shares subject to options granted on December 21, 2015 pursuant to the 2005 Incentive Stock Plan, which vest 25% of the underlying shares ratably on each anniversary date thereafter until fully vested on the fourth anniversary date of grant, including 12,500 for each of Dr. Hayward, Ms. Jantzen and Ms. Murrah.

(3)

Based upon 36,847,857 shares of common stock outstanding as of March 19, 2019. Each beneficial owner's percentage ownership is determined by assuming that the Currently Exercisable Options that are beneficially held by such person (but not those held by any other person) have been exercised and converted.

(4)

Includes 2,671,262 shares underlying currently exercisable options and warrants and 412,000 shares of common stock issuable upon conversion of secured convertible notes payable.

(5)

Includes 257,767 shares underlying currently exercisable options and warrants and 10,300 shares of common stock issuable upon conversion of secured convertible notes payable.

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(6)

Includes 213,177 shares underlying currently exercisable options for Messrs. Bitzer and Ryan.

(7)

Includes 1,185,855 shares of common stock, 76,923 currently exercisable warrants to purchase our common stock and 41,200 shares of common stock issuable upon the conversion of secured convertible notes payable owned by Delabarta, a wholly-owned subsidiary of ABARTA. Mr. Bitzer is President and a member of the board of directors of each of Delabarta and ABARTA. Mr. Bitzer disclaims beneficial ownership of the shares held by Delabarta except to the extent of his pecuniary interest therein.

(8)

Includes 187,924 shares underlying currently exercisable options.

(9)

Includes 209,308 shares underlying currently exercisable options.

(10)

Includes 4,734,228 shares underlying currently exercisable options and warrants and 488,220 shares of common stock issuable upon conversion of secured convertible notes payable.

(11)

Includes 152,830 shares underlying currently exercisable options and 10,300 shares of common stock issuable upon conversion of secured convertible notes payable.

(12)

Includes 280,001 shares underlying currently exercisable options.

(13)

Includes 360,001 shares underlying currently exercisable options and 10,300 shares of common stock issuable upon conversion of secured convertible notes payable.

(14)

Includes 111,858 shares underlying currently exercisable options and 4,120 shares of common stock issuable upon conversion of secured convertible notes payable.

(15)

This information is based on a Form 4 filed with the SEC on January 24, 2019 by William W. Montgomery. William W. Montgomery reported sole voting and sole dispositive power of 5,230,900 shares of common stock. It also includes 82,400 shares of common stock issuable upon conversion of secured convertible notes payable. The address of William W. Montgomery is 34211 Seavey Loop Road, Eugene, Oregon 97405.

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**HOUSEHOLDING OF PROXY MATERIALS**

The SEC has adopted rules that permit companies and intermediaries such as brokers to satisfy delivery requirements for proxy materials with respect to two or more stockholders sharing the same address by delivering a single proxy statement addressed to those stockholders. This process, which is commonly referred to as “householding,” potentially provides extra convenience for stockholders and cost savings for companies. The Company, as well as some brokers (or other nominees), household the Company’s proxy materials, which means that we or they deliver a single proxy statement or Notice, as applicable, to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your broker (or other nominee) or from or us that they or we will be householding materials to your address, householding will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in householding and would prefer to receive a separate proxy statement in the future, or if you are receiving multiple copies of the proxy statement and wish for only one copy to be delivered to your household in the future, please notify (i) your broker (or other nominee) if your shares are held in a brokerage or similar account or (ii) the Company if you hold registered shares in your own name. We will promptly deliver a separate proxy statement to record stockholders upon written or oral request. You can notify us of your instructions by telephone at 631-240-8800 or by sending a written request to:

Corporate Secretary

Applied DNA Sciences, Inc.

50 Health Sciences Drive

Stony Brook, New York 11790

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OTHER BUSINESS

We do not know of any matters that are to be presented for action at the Annual Meeting other than those set forth above. If any other matters properly come before the Annual Meeting, the person named in the enclosed proxy card will vote the shares represented by proxies in accordance with their best judgment on such matters.

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**STOCKHOLDER PROPOSALS AND NOMINATIONS**

In order for a stockholder proposal to be considered for inclusion in the proxy statement for the 2020 annual meeting of stockholders, the written proposal must have been received by the Corporate Secretary at the address below no earlier than December 18, 2019 and no later than January 17, 2020. In the event that the annual meeting of stockholders is called for a date that is not within 30 days before or after the first anniversary of the date of this year's annual meeting, the proposal must be received no later than a reasonable time before the Company begins to print and mail its proxy materials. The proposal will also need to comply with the SEC's regulations under Rule 14a-8 under the Exchange Act regarding the inclusion of stockholder proposals in company sponsored proxy materials. Proposals should have been addressed to:

Corporate Secretary  
Applied DNA Sciences, Inc.  
50 Health Sciences Drive  
Stony Brook, New York 11790

For a stockholder proposal that is not intended to be included in the proxy statement for the 2020 annual meeting of stockholders, or if you want to nominate a person for election as a director, you must provide written notice to the Corporate Secretary at the address above. The Secretary must receive this notice not earlier than January 17, 2020 and not later than February 16, 2020. However, if our 2019 annual meeting of stockholders is held more than 30 days before or more than 60 days after May 16, 2020, then the Secretary must receive this notice not earlier than the close of business on the 120th day prior to the date of our 2019 annual meeting and not later than the close of business on the later of the 90th day prior to such annual meeting or the 10th day following the day on which we make a public announcement of the date of the meeting. The notice of a proposed item of business must provide information as required in our bylaws which, in general, require that the notice include for each matter a brief description of the matter to be brought before the meeting; the reason for bringing the matter before the meeting; the text of the proposal or matter; your name, address, and number of shares you own beneficially or of record; and any material interest you have in the proposal.

The notice of a proposed director nomination must provide information and documentation as required in our bylaws which, in general, require that the notice of a director nomination include the information about the nominee that would be required to be disclosed in the solicitation of proxies for the election of a director under federal securities laws; the nominee's written consent to be named in the proxy statement as a nominee and to serve as a director if elected; a description of any transaction or arrangement during the last three years between the stockholder making the nomination and the nominee in which the nominee had a direct or indirect material interest; and a completed and signed questionnaire, representation and agreement. A copy of the bylaw requirements will be provided upon request to the Corporate Secretary at the address above.



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**ANNUAL REPORT ON FORM 10-K AND OTHER INFORMATION**

A copy of our Annual Report on Form 10-K for the fiscal year ended September 30, 2018, as amended, including financial statements and any financial statement schedules required to be filed in accordance with SEC rules, will be sent without charge to any stockholder of the Company requesting it in writing from: Applied DNA Sciences, Inc., 50 Health Sciences Drive, Stony Brook, New York 11790, Attention: Beth Jantzen. We also make available, free of charge on our website, all of our filings that are publicly filed on the SEC's EDGAR website, including Forms 10-K, 10-Q and 8-K, at [www.adnas.com](http://www.adnas.com).

By Order of the Board of Directors

/s/ James A. Hayward

James A. Hayward

Chairman, President and Chief Executive Officer

Stony Brook, New York

April 4, 2019

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Appendix A  
2005 Incentive Stock Plan

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**APPLIED DNA SCIENCES, INC.**

**2005 INCENTIVE STOCK PLAN**

As amended by the Board of Directors with the increase of 6,000,000 shares of common stock of the Company that can be issued pursuant hereto, subject to stockholder approval.

(Amended and Restated as of January 21, 2015)

THIS APPLIED DNA SCIENCES, INC. 2005 INCENTIVE STOCK PLAN (the “Plan”) is designed to retain directors, executives and selected employees and consultants and reward them for making major contributions to the success of the Company. These objectives are accomplished by making long-term incentive awards under the Plan thereby providing Participants with a proprietary interest in the growth and performance of the Company.

1.

Definitions.

(a)

“Board” — The Board of Directors of the Company.

(b)

“Code” — The Internal Revenue Code of 1986, as amended from time to time.

(c)

“Committee” — The Compensation Committee of the Company’s Board, or such other committee of the Board that is designated by the Board to administer the Plan, composed of not less than two members of the Board whom are disinterested persons, as contemplated by Rule 16b-3 (“Rule 16b-3”) promulgated under the Securities Exchange Act of 1934, as amended (the “Exchange Act”).

(d)

“Company” — APPLIED DNA SCIENCES, INC. and its subsidiaries including subsidiaries of subsidiaries.

(e)

“Exchange Act” — The Securities Exchange Act of 1934, as amended from time to time.

(f)

“Fair Market Value” — The fair market value of the Company’s issued and outstanding Stock as determined in good faith by the Board or Committee.

(g)

“Grant” — The grant of any form of stock option, stock award, or stock purchase offer, whether granted singly, in combination, or in tandem, to a Participant pursuant to such terms, conditions and limitations as the Committee may establish in order to fulfill the objectives of the Plan.

(h)

“Grant Agreement” — An agreement between the Company and a Participant that sets forth the terms, conditions and limitations applicable to a Grant.

(i)

“Option” — Either an Incentive Stock Option, in accordance with Section 422 of Code, or a Nonstatutory Option, to purchase the Company’s Stock, that may be awarded to a Participant under the Plan. A Participant who receives an award of an Option shall be referred to as an “Optionee.”

(j)

“Participant” — A director, officer, employee or consultant of the Company to whom an Award has been made under the Plan.

(k)

“Restricted Stock Purchase Offer” — A Grant of the right to purchase a specified number of shares of Stock pursuant to a written agreement issued under the Plan.

(l)

“Securities Act” — The Securities Act of 1933, as amended from time to time.

(m)

“Stock” — Authorized and issued or unissued shares of common stock of the Company.

(n)

“Stock Award” — A Grant made under the Plan in Stock or denominated in units of Stock for which the Participant is not obligated to pay additional consideration.

2.

Administration. The Plan shall be administered by the Board, provided however, that the Board may delegate such administration to the Committee. Subject to the provisions of the Plan, the Board and/or the Committee shall have authority to (a) grant, in its discretion, Incentive Stock Options in accordance with Section 422 of the Code, or Nonstatutory Options, Stock Awards or Restricted Stock Purchase Offers; (b) determine in good faith the fair market value of the Stock covered by any Grant;

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(c) determine which eligible persons shall receive Grants and the number of shares, restrictions, terms and conditions to be included in such Grants; (d) construe and interpret the Plan; (e) promulgate, amend and rescind rules and regulations relating to its administration, and correct defects, omissions and inconsistencies in the Plan or any Grant; (f) consistent with the Plan and with the consent of the Participant, as appropriate, amend any outstanding Grant or amend the exercise date or dates thereof; (g) determine the duration and purpose of leaves of absence which may be granted to Participants without constituting termination of their employment for the purpose of the Plan or any Grant; and (h) make all other determinations necessary or advisable for the Plan's administration. The interpretation and construction by the Board and/or the Committee of any provisions of the Plan or selection of Participants shall be conclusive and final. No member of the Board or the Committee shall be liable for any action or determination made in good faith with respect to the Plan or any Grant made thereunder.

3.

Eligibility.

(a)

General: The persons who shall be eligible to receive Grants shall be directors, officers, employees or consultants to the Company. The term consultant shall mean any person, other than an employee or non-employee director, who is engaged by the Company to render services and is compensated for such services. An Optionee may hold more than one Option. Any issuance of a Grant to an officer or director of the Company subsequent to the first registration of any of the securities of the Company under the Exchange Act shall comply with the requirements of Rule 16b-3.

(b)

Incentive Stock Options: Incentive Stock Options may only be issued to employees of the Company. Incentive Stock Options may be granted to officers or directors, provided they are also employees of the Company. Payment of a director's fee shall not be sufficient to constitute employment by the Company.

The Company shall not grant an Incentive Stock Option under the Plan to any employee if such Grant would result in such employee holding the right to exercise for the first time in any one calendar year, under all Incentive Stock Options granted under the Plan or any other plan maintained by the Company, with respect to shares of Stock having an aggregate fair market value, determined as of the date of the Option is granted, in excess of \$100,000. Should it be determined that an Incentive Stock Option granted under the Plan exceeds such maximum for any reason other than a failure in good faith to value the Stock subject to such option, the excess portion of such option shall be considered a Nonstatutory Option. To the extent the employee holds two (2) or more such Options which become exercisable for the first time in the same calendar year, the foregoing limitation on the exercisability of such Option as Incentive Stock Options under the Federal tax laws shall be applied on the basis of the order in which such Options are granted. If, for any reason, an entire Option does not qualify as an Incentive Stock Option by reason of exceeding such maximum, such Option shall be considered a Nonstatutory Option.

(c)

Nonstatutory Option: The provisions of the foregoing Section 3(b) shall not apply to any Option designated as a "Nonstatutory Option" or which sets forth the intention of the parties that the Option be a Nonstatutory Option.

(d)

Stock Awards and Restricted Stock Purchase Offers: The provisions of this Section 3 shall not apply to any Stock Award or Restricted Stock Purchase Offer under the Plan.

4.

Stock.

(a)

Authorized Stock: Stock subject to Grants may be either unissued or reacquired Stock.

(b)

Number of Shares: Subject to adjustment as provided in Section 5(i) of the Plan, the total number of shares of Stock which may be purchased or granted directly by Options, Stock Awards or Restricted Stock Purchase Offers, or purchased indirectly through exercise of Options granted under the Plan shall not exceed 14,333,333. If any Grant shall for any reason terminate or expire, any shares allocated thereto but remaining unpurchased upon such expiration or termination shall again be available for Grants with respect thereto under the Plan as though no Grant had previously occurred with respect to such shares. Any shares of Stock issued pursuant to a Grant

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and repurchased pursuant to the terms thereof shall be available for future Grants as though not previously covered by a Grant. No more than 833,334 shares of Stock may be issued pursuant to Awards granted in any calendar year to any individual.

(c)

Reservation of Shares: The Company shall reserve and keep available at all times during the term of the Plan such number of shares as shall be sufficient to satisfy the requirements of the Plan. If, after reasonable efforts, which efforts shall not include the registration of the Plan or Grants under the Securities Act, the Company is unable to obtain authority from any applicable regulatory body, which authorization is deemed necessary by legal counsel for the Company for the lawful issuance of shares hereunder, the Company shall be relieved of any liability with respect to its failure to issue and sell the shares for which such requisite authority was so deemed necessary unless and until such authority is obtained.

(d)

Application of Funds: The proceeds received by the Company from the sale of Stock pursuant to the exercise of Options or rights under Stock Purchase Agreements will be used for general corporate purposes.

(e)

No Obligation to Exercise: The issuance of a Grant shall impose no obligation upon the Participant to exercise any rights under such Grant.

5.

Terms and Conditions of Options. Options granted hereunder shall be evidenced by agreements between the Company and the respective Optionees, in such form and substance as the Board or Committee shall from time to time approve. Option agreements need not be identical, and in each case may include such provisions as the Board or Committee may determine, but all such agreements shall be subject to and limited by the following terms and conditions:

(a)

Number of Shares: Each Option shall state the number of shares to which it pertains.

(b)

Exercise Price: Each Option shall state the exercise price, which shall be determined as follows:

(i)

Any Incentive Stock Option granted to a person who at the time the Option is granted owns (or is deemed to own pursuant to Section 424(d) of the Code) stock possessing more than ten percent (10%) of the total combined voting power or value of all classes of stock of the Company ("Ten Percent Holder") shall have an exercise price of no less than 110% of the Fair Market Value of the Stock as of the date of grant; and

(ii)

Incentive Stock Options granted to a person who at the time the Option is granted is not a Ten Percent Holder and all Nonstatutory Options shall have an exercise price of no less than 100% of the Fair Market Value of the Stock as of the date of grant.

For the purposes of this Section 5(b), the Fair Market Value shall be as determined by the Board in good faith, which determination shall be conclusive and binding; provided however, that if there is a public market for such Stock, the Fair Market Value per share shall be the average of the bid and asked prices (or the closing price if such stock is listed on the NASDAQ National Market System or Small Cap Issue Market) on the date of grant of the Option, or if listed on a stock exchange, the closing price on such exchange on such date of grant.

(c)

Medium and Time of Payment: The exercise price shall become immediately due upon exercise of the Option and shall be paid in cash or check made payable to the Company. Should the Company's outstanding Stock be registered under Section 12(g) of the Exchange Act at the time the Option is exercised, then the exercise price may also be paid as follows:

- (i)  
in shares of Stock held by the Optionee for the requisite period necessary to avoid a charge to the Company's earnings for financial reporting purposes and valued at Fair Market Value on the exercise date, or
- (ii)  
through a special sale and remittance procedure pursuant to which the Optionee shall concurrently provide irrevocable written instructions (a) to a Company designated brokerage firm to effect the immediate sale of the purchased shares and remit to the Company, out of the sale proceeds available on the settlement date, sufficient funds to cover the aggregate exercise price payable for the purchased shares plus all applicable Federal, state and local



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income and employment taxes required to be withheld by the Company by reason of such purchase and (b) to the Company to deliver the certificates for the purchased shares directly to such brokerage firm in order to complete the sale transaction.

At the discretion of the Board, exercisable either at the time of Option grant or of Option exercise, the exercise price may also be paid in such other form of consideration as may be acceptable to the Board, subject to applicable Delaware and federal law, including, without limitation, deemed payment through the delivery of “net shares” by the Company to the Optionee pursuant to a cashless exercise procedure.

(d)

**Term and Exercise of Options:** In no event shall any Option be exercisable after the expiration of ten (10) years from the date it is granted, and no Incentive Stock Option granted to a Ten Percent Holder shall, by its terms, be exercisable after the expiration of five (5) years from the date of the Option.

Each Option shall be exercisable to the nearest whole share, in installments or otherwise, as the respective Option agreements may provide. During the lifetime of an Optionee, the Option shall be exercisable only by the Optionee and shall not be assignable or transferable by the Optionee, and no other person shall acquire any rights therein. To the extent not exercised, installments (if more than one) shall accumulate, but shall be exercisable, in whole or in part, only during the period for exercise as stated in the Option agreement, whether or not other installments are then exercisable.

**Termination of Status as Employee, Consultant or Director:** Except as otherwise determined by the Board or the Committee, if an Optionee ceases to be employed by or provided other services to the Company, then, unless sooner terminated, the vested portion of the Option will terminate if and to the extent it is not exercised within 90 days after the date of the Optionee’s termination of employment or service (or one year if the Optionee’s employment or service terminates by reason of his or her “Disability” (as defined below) or death), provided, however, that, if the Optionee’s employment is terminated by the Company for “Cause” (as defined below), then the Option (whether or not vested) will terminate upon the date of such termination of employment or service. An Option will be forfeited upon the termination of an Optionee’s employment or service if and to the extent the Option is not or does not become vested at such time.

(e)

**Definitions:** For the purposes hereof, the term “Cause” means an Optionee’s (a) conviction or plea of nolo contendere to a felony; (b) commission of fraud or a material act or omission involving dishonesty with respect to the Company or its Affiliates, as reasonably determined by the Company; (c) willful failure or refusal to carry out the material responsibilities of his or her employment, as reasonably determined by the Company; (d) gross negligence, willful misconduct, or engaging in a pattern of behavior which has had or is reasonably likely to have a significant adverse effect on the Company, as reasonably determined by the Company; or (e) willfully engaging in any act or omission that is in material violation of a material policy of the Company, including, without limitation, policies on business ethics and conduct, and policies on the use of inside information and insider trading. The term “Disability” shall have the meaning ascribed thereto pursuant to Section 22(e)(3) of the Code.

(f)

**Nontransferability of Option:** No Option shall be transferable by the Optionee, except by will or by the laws of descent and distribution.

(g)

**Recapitalization:** Subject to any required action of shareholders, the number of shares of Stock covered by each outstanding Option, the maximum number of shares of Stock that may be covered by Awards granted to any individual in any calendar year, and the exercise price per share covered by any Option shall be proportionately adjusted for any increase or decrease in the number of issued shares of Stock of the Company resulting from a stock split, stock dividend, combination, subdivision or reclassification of shares, or the payment of a stock dividend, or any other increase or decrease in the number of such shares affected without receipt of consideration by the Company; provided, however, the conversion of any convertible securities of the Company shall not be deemed to have been

“effected without receipt of consideration” by the Company.

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In the event of a proposed dissolution or liquidation of the Company, a merger or consolidation in which the Company is not the surviving entity, or a sale of all or substantially all of the assets or capital stock of the Company (collectively, a “Reorganization”), unless otherwise provided by the Board, each Option shall terminate immediately prior to such date as is determined by the Board, which date shall be no later than the consummation of such Reorganization. In such event, if the entity which shall be the surviving entity does not tender to Optionee an offer, for which it has no obligation to do so, to substitute for any unexercised Option a stock option or capital stock of such surviving of such surviving entity, as applicable, which on an equitable basis shall provide the Optionee with substantially the same economic benefit as such unexercised Option, then the Board may grant to such Optionee, in its sole and absolute discretion and without obligation, the right for a period commencing thirty (30) days prior to and ending immediately prior to the date determined by the Board pursuant hereto for termination of the Option or during the remaining term of the Option, whichever is the lesser, to exercise any unexpired Option or Options without regard to the installment provisions of Paragraph 6(d) of the Plan; provided, that any such right granted shall be granted to all Optionees not receiving an offer to receive substitute options on a consistent basis, and provided further, that any such exercise shall be subject to the consummation of such Reorganization.

Subject to any required action of shareholders, if the Company shall be the surviving entity in any merger or consolidation, each outstanding Option thereafter shall pertain to and apply to the securities to which a holder of shares of Stock equal to the shares subject to the Option would have been entitled by reason of such merger or consolidation.

In the event of a change in the Stock of the Company as presently constituted, which is limited to a change of all of its authorized shares without par value into the same number of shares with a par value, the shares resulting from any such change shall be deemed to be the Stock within the meaning of the Plan.

To the extent that the foregoing adjustments relate to stock or securities of the Company, such adjustments shall be made by the Board, whose determination in that respect shall be final, binding and conclusive. Except as expressly provided in this Section 5(i), the Optionee shall have no rights by reason of any subdivision or consolidation of shares of stock of any class or the payment of any stock dividend or any other increase or decrease in the number of shares of stock of any class, and the number or price of shares of Stock subject to any Option shall not be affected by, and no adjustment shall be made by reason of any dissolution, liquidation, merger, consolidation or sale of assets or capital stock, or any issue by the Company of shares of stock of any class or securities convertible into shares of stock of any class.

The Grant of an Option pursuant to the Plan shall not affect in any way the right or power of the Company to make any adjustments, reclassifications, reorganizations or changes in its capital or business structure or to merge, consolidate, dissolve, or liquidate or to sell or transfer all or any part of its business or assets.

(h)

**Rights as a Shareholder:** An Optionee shall have no rights as a shareholder with respect to any shares covered by an Option until the effective date of the issuance of the shares following exercise of such Option by Optionee. No adjustment shall be made for dividends (ordinary or extraordinary, whether in cash, securities or other property) or distributions or other rights for which the record date is prior to the date such stock certificate is issued, except as expressly provided in Section 5(i) hereof.

(i)

**Modification, Acceleration, Extension, and, Renewal of Options:** Subject to the terms and conditions and within the limitations of the Plan, the Board may modify an Option, or, once an Option is exercisable, accelerate the rate at which it may be exercised, and may extend or renew outstanding Options granted under the Plan or accept the surrender of outstanding Options (to the extent not theretofore exercised) and authorize the granting of new Options in substitution for such Options, provided such action is not prohibited by Section 422 of the Code or other applicable law; however, no modification of an Option shall without the consent of the Optionee, alter to the Optionee’s detriment or impair any rights or obligations under any Option theretofore granted under the Plan.



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(j)

Exercise Before Exercise Date: At the discretion of the Board, the Option may, but need not, include a provision whereby the Optionee may elect to exercise all or any portion of the Option prior to the stated exercise date of the Option or any installment thereof. Any shares so purchased prior to the stated exercise date shall be subject to repurchase by the Company upon termination of Optionee's employment as contemplated by Section 5(n) hereof prior to the exercise date stated in the Option and such other restrictions and conditions as the Board or Committee may deem advisable.

(k)

Other Provisions: The Option agreements authorized under the Plan shall contain such other provisions, including, without limitation, restrictions upon the exercise of the Options, as the Board or the Committee shall deem advisable. The Board or the Committee may permit Options to be exercised beyond the time periods described herein; provided, however, that no Option may be exercised more than 10 years after the date it is granted. Shares shall not be issued pursuant to the exercise of an Option, if, in the opinion of legal counsel for the Company, the exercise of such Option and/or the issuance of shares thereunder would violate applicable law or the rules and regulations of any exchange upon which the shares of the Company are listed. Without limiting the generality of the foregoing, the exercise of each Option shall be subject to the condition that if at any time the Company shall determine that (i) the satisfaction of withholding tax or other similar liabilities, or (ii) the listing, registration or qualification of any shares covered by such exercise upon any securities exchange or under any state or federal law, or (iii) the consent or approval of any regulatory body, or (iv) the perfection of any exemption from any such withholding, listing, registration, qualification, consent or approval is necessary or desirable in connection with such exercise or the issuance of shares thereunder, then in any such event, such exercise shall not be effective unless such withholding, listing, registration, qualification, consent, approval or exemption shall have been effected, obtained or perfected free of any conditions not acceptable to the Company.

6.

Stock Awards and Restricted Stock Purchase Offers.

(a)

Types of Grants.

(i)

Stock Award. All or part of any Stock Award under the Plan may be subject to conditions established by the Board or the Committee, and set forth in the Stock Award Agreement, which may include, but are not limited to, continuous service with the Company, achievement of specific business objectives, increases in specified indices, attaining growth rates and other comparable measurements of Company performance. Such Awards may be based on Fair Market Value or other specified valuation.

(ii)

Restricted Stock Purchase Offer. A Grant of a Restricted Stock Purchase Offer under the Plan shall be subject to such (i) vesting contingencies related to the Participant's continued association with the Company for a specified time and (ii) other specified conditions as the Board or Committee shall determine, in their sole discretion, consistent with the provisions of the Plan.

(b)

Conditions and Restrictions. Shares of Stock which Participants may receive as a Stock Award under a Stock Award Agreement or Restricted Stock Purchase Offer under a Restricted Stock Purchase Offer may include such restrictions as the Board or Committee, as applicable, shall determine, including restrictions on transfer, repurchase rights, right of first refusal, and forfeiture provisions. When transfer of Stock is so restricted or subject to forfeiture provisions it is referred to as "Restricted Stock". Further, with Board or Committee approval, Stock Awards or Restricted Stock

Purchase Offers may be deferred, either in the form of installments or a future lump sum distribution. The Board or Committee may permit selected Participants to elect to defer distributions of Stock Awards or Restricted Stock Purchase Offers in accordance with procedures established by the Board or Committee to assure that such deferrals comply with applicable requirements of the Code (including, without limitation, Section 409A of the Code) including, at the choice of Participants, the capability to make further deferrals for distribution after retirement. Any deferred distribution, whether elected by the Participant or specified by the Stock Award Agreement, Restricted Stock Purchase Offers or by the Board or Committee, may require the

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payment be forfeited in accordance with the provisions of Section 6(c). Dividends or dividend equivalent rights may be extended to and made part of any Stock Award or Restricted Stock Purchase Offers denominated in Stock or units of Stock, subject to such terms, conditions and restrictions as the Board or Committee may establish.

(c)

Cancellation and Rescission of Grants. Unless the Stock Award Agreement or Restricted Stock Purchase Offer specifies otherwise, the Board or Committee, as applicable, may cancel any unexpired, unpaid, or deferred Grants at any time if the Participant is not in compliance with all other applicable provisions of the Stock Award Agreement or Restricted Stock Purchase Offer, the Plan and with the following conditions:

(i)

A Participant shall not render services for any organization or engage directly or indirectly in any business which, in the judgment of the chief executive officer of the Company or other senior officer designated by the Board or Committee, is or becomes competitive with the Company, or which organization or business, or the rendering of services to such organization or business, is or becomes otherwise prejudicial to or in conflict with the interests of the Company. For Participants whose employment has terminated, the judgment of the chief executive officer shall be based on the Participant's position and responsibilities while employed by the Company, the Participant's post-employment responsibilities and position with the other organization or business, the extent of past, current and potential competition or conflict between the Company and the other organization or business, the effect on the Company's customers, suppliers and competitors and such other considerations as are deemed relevant given the applicable facts and circumstances. A Participant who has retired shall be free, however, to purchase as an investment or otherwise, stock or other securities of such organization or business so long as they are listed upon a recognized securities exchange or traded over-the-counter, and such investment does not represent a substantial investment to the Participant or a greater than ten percent (10%) equity interest in the organization or business.

(ii)

A Participant shall not, without prior written authorization from the Company, disclose to anyone outside the Company, or use in other than the Company's business, any confidential information or material, as defined in the Company's Proprietary Information and Invention Agreement or similar agreement regarding confidential information and intellectual property, relating to the business of the Company, acquired by the Participant either during or after employment with the Company.

(iii)

A Participant, pursuant to the Company's Proprietary Information and Invention Agreement, shall disclose promptly and assign to the Company all right, title and interest in any invention or idea, patentable or not, made or conceived by the Participant during employment by the Company, relating in any manner to the actual or anticipated business, research or development work of the Company and shall do anything reasonably necessary to enable the Company to secure a patent where appropriate in the United States and in foreign countries.

(iv)

Upon exercise, payment or delivery pursuant to a Grant, the Participant shall certify on a form acceptable to the Committee that he or she is in compliance with the terms and conditions of the Plan. Failure to comply with all of the provisions of this Section 6(c) prior to, or during the six months after, any exercise, payment or delivery pursuant to a Grant shall cause such exercise, payment or delivery to be rescinded. The Company shall notify the Participant in writing of any such rescission within two years after such exercise, payment or delivery. Within ten days after receiving such a notice from the Company, the Participant shall pay to the Company the amount of any gain realized or payment received as a result of the rescinded exercise, payment or delivery pursuant to a Grant. Such payment shall be made either in cash or by returning to the Company the number of shares of Stock that the Participant received in connection with the rescinded exercise, payment or delivery.

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(d)

Nonassignability.

(i)

Except pursuant to Section 6(e)(iii) and except as set forth in Section (d)(ii), no Grant or any other benefit under the Plan shall be assignable or transferable, or payable to or exercisable by, anyone other than the Participant to whom it was granted.

(ii)

Where a Participant terminates employment and retains a Grant pursuant to Section 6(e)(ii) in order to assume a position with a governmental, charitable or educational institution, the Board or Committee, in its discretion, and to the extent permitted by law, may authorize a third party (including but not limited to the trustee of a “blind” trust), acceptable to the applicable governmental or institutional authorities, the Participant and the Board or Committee, to act on behalf of the Participant with regard to such awards.

(e)

Termination of Employment. If the employment or service to the Company of a Participant terminates, other than pursuant to any of the following provisions under this Section 6(e), all unexercised, deferred and unpaid Stock Awards or Restricted Stock Purchase Offers shall be cancelled immediately, unless the Stock Award Agreement or Restricted Stock Purchase Offer provides otherwise:

(i)

Retirement Under a Company Retirement Plan. When a Participant’s employment terminates as a result of retirement in accordance with the terms of a Company retirement plan, the Board or Committee may permit Stock Awards or Restricted Stock Purchase Offers to continue in effect beyond the date of retirement in accordance with the applicable Grant Agreement and the exercisability and vesting of any such Grants may be accelerated.

(ii)

Rights in the Best Interests of the Company. When a Participant resigns from the Company and, in the judgment of the Board or Committee, the acceleration and/or continuation of outstanding Stock Awards or Restricted Stock Purchase Offers would be in the best interests of the Company, the Board or Committee may (i) authorize, where appropriate, the acceleration and/or continuation of all or any part of Grants issued prior to such termination and (ii) permit the exercise, vesting and payment of such Grants for such period as may be set forth in the applicable Grant Agreement, subject to earlier cancellation pursuant to Section 9 or at such time as the Board or Committee shall deem the continuation of all or any part of the Participant’s Grants are not in the Company’s best interest.

(iii)

Death or Disability of a Participant.

(1)

In the event of a Participant’s death, the Participant’s estate or beneficiaries shall have a period up to the expiration date specified in the Grant Agreement within which to receive or exercise any outstanding Grant held by the Participant under such terms as may be specified in the applicable Grant Agreement. Rights to any such outstanding Grants shall pass by will or the laws of descent and distribution in the following order: (a) to beneficiaries so designated by the Participant; if none, then (b) to a legal representative of the Participant; if none, then (c) to the persons entitled thereto as determined by a court of competent jurisdiction. Grants so passing shall be made at such times and in such manner as if the Participant were living.

(2)

In the event a Participant is deemed by the Board or Committee to be unable to perform his or her usual duties by reason of mental disorder or medical condition which does not result from facts which would be grounds for termination for cause, Grants and rights to any such Grants may be paid to or exercised by the Participant, if legally competent, or a committee or other legally designated guardian or representative if the Participant is legally incompetent by virtue of such disability.

(3)

After the death or disability of a Participant, the Board or Committee may in its sole discretion at any time

(1) terminate restrictions in Grant Agreements; (2) accelerate any or all installments and rights; and (3) instruct the Company to pay the total of any accelerated payments in a lump sum to the Participant, the Participant's estate,

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beneficiaries or representative; notwithstanding that, in the absence of such termination of restrictions or acceleration of payments, any or all of the payments due under the Grant might ultimately have become payable to other beneficiaries.

(4)

In the event of uncertainty as to interpretation of or controversies concerning this Section 6, the determinations of the Board or Committee, as applicable, shall be binding and conclusive.

7.

**Investment Intent.** All Grants under the Plan are intended to be exempt from registration under the Securities Act provided by Rule 701 thereunder. Unless and until the granting of Options or sale and issuance of Stock subject to the Plan are registered under the Securities Act or shall be exempt pursuant to the rules promulgated thereunder, each Grant under the Plan shall provide that the purchases or other acquisitions of Stock thereunder shall be for investment purposes and not with a view to, or for resale in connection with, any distribution thereof. Further, unless the issuance and sale of the Stock have been registered under the Securities Act, each Grant shall provide that no shares shall be purchased upon the exercise of the rights under such Grant unless and until (i) all then applicable requirements of state and federal laws and regulatory agencies shall have been fully complied with to the satisfaction of the Company and its counsel, and (ii) if requested to do so by the Company, the person exercising the rights under the Grant shall (i) give written assurances as to knowledge and experience of such person (or a representative employed by such person) in financial and business matters and the ability of such person (or representative) to evaluate the merits and risks of exercising the Option, and (ii) execute and deliver to the Company a letter of investment intent and/or such other form related to applicable exemptions from registration, all in such form and substance as the Company may require. If shares are issued upon exercise of any rights under a Grant without registration under the Securities Act, subsequent registration of such shares shall relieve the purchaser thereof of any investment restrictions or representations made upon the exercise of such rights.

8.

**Amendment, Modification, Suspension or Discontinuance of the Plan.** The Board may, insofar as permitted by law, from time to time, with respect to any shares at the time not subject to outstanding Grants, suspend or terminate the Plan or revise or amend it in any respect whatsoever, except that without the approval of the shareholders of the Company, no such revision or amendment shall (i) increase the number of shares subject to the Plan, (ii) decrease the price at which Grants may be granted, (iii) materially increase the benefits to Participants, or (iv) change the class of persons eligible to receive Grants under the Plan; provided, however, no such action shall alter or impair the rights and obligations under any Option, or Stock Award, or Restricted Stock Purchase Offer outstanding as of the date thereof without the written consent of the Participant thereunder. No Grant may be issued while the Plan is suspended or after it is terminated, but the rights and obligations under any Grant issued while the Plan is in effect shall not be impaired by suspension or termination of the Plan.

In the event of any change in the outstanding Stock by reason of a stock split, stock dividend, combination or reclassification of shares, recapitalization, merger, or similar event, the Board or the Committee may adjust proportionally (a) the number of shares of Stock (i) reserved under the Plan, (ii) issuable under Awards granted to any individual in any calendar year, (iii) available for Incentive Stock Options and Nonstatutory Options and (iv) covered by outstanding Stock Awards or Restricted Stock Purchase Offers; (b) the Stock prices related to outstanding Grants; and (c) the appropriate Fair Market Value and other price determinations for such Grants. In the event of any other change affecting the Stock or any distribution (other than normal cash dividends) to holders of Stock, such adjustments as may be deemed equitable by the Board or the Committee, including adjustments to avoid fractional shares, shall be made to give proper effect to such event. In the event of a corporate merger, consolidation, acquisition of property or stock, separation, reorganization or liquidation, the Board or the Committee shall be authorized to issue or assume stock options, whether or not in a transaction to which Section 424(a) of the Code applies, and other Grants by means of substitution of new Grant Agreements for previously issued Grants or an assumption of previously issued Grants.

Unless sooner terminated, the Plan shall terminate on January 25, 2025.

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9.

Tax Withholding. The Company shall have the right to deduct applicable taxes from any compensation payable to the Participant, whether or not pursuant to the Plan, including, without limitation, the right to withhold, at the time of delivery or exercise of Options, Stock Awards or Restricted Stock Purchase Offers or vesting of shares under such Grants, an appropriate number of shares for payment of taxes required by law or to take such other action as may be necessary in the opinion of the Company to satisfy all obligations for withholding of such taxes. If Stock is used to satisfy tax withholding, such stock shall be valued based on the Fair Market Value when the tax withholding is required to be made.

10.

Notice. Any written notice to the Company required by any of the provisions of the Plan shall be addressed to the chief personnel officer or to the chief executive officer of the Company, and shall become effective when it is received by the office of the chief personnel officer or the chief executive officer.

11.

Indemnification of Board. In addition to such other rights or indemnifications as they may have as directors or otherwise, and to the extent allowed by applicable law, the members of the Board and the Committee shall be indemnified by the Company against the reasonable expenses, including attorneys' fees, actually and necessarily incurred in connection with the defense of any claim, action, suit or proceeding, or in connection with any appeal thereof, to which they or any of them may be a party by reason of any action taken, or failure to act, under or in connection with the Plan or any Grant granted thereunder, and against all amounts paid by them in settlement thereof (provided such settlement is approved by independent legal counsel selected by the Company) or paid by them in satisfaction of a judgment in any such claim, action, suit or proceeding, except in any case in relation to matters as to which it shall be adjudged in such claim, action, suit or proceeding that such Board or Committee member is liable for negligence or misconduct in the performance of his or her duties; provided that within sixty (60) days after institution of any such action, suit or Board proceeding the member involved shall offer the Company, in writing, the opportunity, at its own expense, to handle and defend the same.

12.

Governing Law. All rights and obligations under the Plan and each Award agreement or instrument shall be governed by and construed in accordance with the laws of the State of Delaware, without regard to its principles of conflict of laws.

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Questions? Need Help Voting?

Please contact our Strategic Shareholder Advisor and Proxy

Solicitation Agent, Kingsdale Advisors

CONTACT US:

North American Toll Free Phone:

1-855-682-9644

E-mail: [contactus@kingsdaleadvisors.com](mailto:contactus@kingsdaleadvisors.com)

Fax: 416-867-2271

Toll Free Fax: 1-866-545-5580

Outside North America, Banks and Brokers

Call Collect: 416-867-2272

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Signature [PLEASE SIGN WITHIN BOX] Date Signature (Joint Owners) Date TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS: KEEP THIS PORTION FOR YOUR RECORDS THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED. DETACH AND RETURN THIS PORTION ONLY E65171-P21507 For All Withhold All For All Except For Against Abstain For Against Abstain ! ! ! ! To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below. APPLIED DNA SCIENCES, INC. ATTN: BETH JANTZEN 50 HEALTH SCIENCES DRIVE STONY BROOK, NY 11790 The Board of Directors recommends you vote FOR proposals 2, 3, and 5, and for THREE YEARS on proposal 4. Nominees: 01) James A. Hayward 02) John Bitzer, III 03) Robert B. Catell 04) Joseph D. Ceccoli 05) Charles S. Ryan 06) Yacov A. Shamash 07) Sanford R. Simon 08) Elizabeth M. Schmalz Ferguson 2. Approval of the amendment of the 2005 Incentive Stock Plan to increase the number of shares of our common stock that can be issued pursuant thereto. 3. Approval, on a non-binding advisory basis, of the compensation of the Company's named executive officers. 5. Ratification of the selection of Marcum LLP as our independent registered public accounting firm for the fiscal year ending September 30, 2019. 4. Approval, on a non-binding, advisory basis, of the frequency of the stockholder vote on the compensation of the Company's named executive officers. NOTE: Such other business as may properly come before the meeting or any adjournment thereof. 1. Election of Directors APPLIED DNA SCIENCES, INC. The Board of Directors recommends you vote FOR the following: Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name by authorized officer. ! ! ! 1 Year 2 Years 3 Years Abstain ! ! ! ! ! VOTE BY INTERNET - [www.proxyvote.com](http://www.proxyvote.com) Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time on May 15, 2019, the day before the meeting date. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form. ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS If you would like to reduce the costs incurred by our company in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access proxy materials electronically in future years. VOTE BY PHONE - 1-800-690-6903 Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time on May 15, 2019, the day before the meeting date. Have your proxy card in hand when you call and then follow the instructions. VOTE BY MAIL Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

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E65172-P21507 Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting: The Notice and Proxy Statement and Annual Report on Form 10-K are available at [www.proxyvote.com](http://www.proxyvote.com). APPLIED DNA SCIENCES, INC. Annual Meeting of Stockholders May 16, 2019 10:00 AM This proxy is solicited by the Board of Directors. The stockholder executing and delivering this Proxy hereby appoints Ms. Judith Murrah and Ms. Beth Jantzen and each of them as proxies (the "proxies"), with full power of substitution, and hereby authorizes them to represent and vote, as designated on the reverse side, all shares of common stock, \$0.001 par value per share, of Applied DNA Sciences, Inc. held of record by the undersigned as of March 19, 2019, at the Annual Meeting of Stockholders of Applied DNA Sciences, Inc., to be held at the Center of Excellence in Wireless and Information Technology, 1500 Stony Brook Rd., Stony Brook, New York 11794, at 10:00 a.m., local time, on Thursday, May 16, 2019, or at any postponements or adjournments of the meeting. This Proxy, when properly executed, will be voted in the manner directed herein by the undersigned stockholder. If no direction is made, this Proxy will be voted in accordance with the recommendations of our Board of Directors and for such other matters as may properly come before the meeting as said proxies deem advisable. **THIS PROXY SHOULD BE MARKED, DATED AND SIGNED BY THE STOCKHOLDER(S) EXACTLY AS SUCH STOCKHOLDER'S NAME APPEARS HEREON AND RETURNED PROMPTLY IN THE ENCLOSED ENVELOPE. PERSONS SIGNING IN A FIDUCIARY CAPACITY SHOULD SO INDICATE. IF SHARES ARE HELD BY JOINT TENANTS OR AS COMMUNITY PROPERTY, BOTH SHOULD SIGN.** Continued and to be signed on reverse side

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See the reverse side of this notice to obtain proxy materials and voting instructions.E65174-P21507You are receiving this communication because you hold shares in the company named above.This is not a ballot. You cannot use this notice to vote these shares. This communication presents only an overview of the more complete proxy materials that are available to you on the Internet. You may view the proxy materials online at [www.proxyvote.com](http://www.proxyvote.com) or easily request a paper copy (see reverse side).We encourage you to access and review all of the important information contained in the proxy materials before voting.APPLIED DNA SCIENCES, INC.\*\*\* Exercise Your Right to Vote \*\*\*Important Notice Regarding the Availability of Proxy Materials for theStockholder Meeting to Be Held on May 16, 2019.APPLIED DNA SCIENCES, INC.ATTN: BETH JANTZEN50 HEALTH SCIENCES DRIVESTONY BROOK, NY 11790Meeting InformationMeeting Type: Annual MeetingFor holders as of: March 19, 2019Date: May 16, 2019 Time: 10:00 AM Local TimeLocation:Center of Excellence inWireless and Information Technology1500 Stony Brook Rd.Stony Brook, NY 11794

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Voting ItemsThe Board of Directors recommends you vote FOR proposals 2, 3, and 5, and for THREE YEARS on proposal 4.Nominees:01) James A. Hayward02) John Bitzer, III03) Robert B. Catell04) Joseph D. CeccoliNOTE: Such other business as may properly come before the meeting or any adjournment thereof.1. Election of DirectorsThe Board of Directors recommends youvote FOR the following:05) Charles S. Ryan06) Yacov A. Shamash07) Sanford R. Simon08) Elizabeth M. Schmalz Ferguson2. Approval of the amendment of the 2005 Incentive Stock Plan to increase the number of shares of our common stockthat can be issued pursuant thereto.3. Approval, on a non-binding advisory basis, of the compensation of the Company's named executive officers.5. Ratification of the selection of Marcum LLP as our independent registered public accounting firm for the fiscal year endingSeptember 30, 2019.4. Approval, on a non-binding, advisory basis, of the frequency of the stockholder vote on the compensation of theCompany's named executive officers.E65176-P21507

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