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

Form 6-K

**REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16
OF THE SECURITIES EXCHANGE ACT OF 1934**

For the month of May 2017

Commission File Number: 001-32001

Aptose Biosciences Inc.

(Translation of registrant's name into English)

**5955 Airport Road, Suite 228
Mississauga, Ontario L4V 1R9
Canada**

(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1)

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7)

INCORPORATION BY REFERENCE

Exhibit 99.1 to this Report of Foreign Issuer on Form 6-K of Aptose Biosciences Inc. (the "Registrant") is hereby incorporated by reference into the registration statement on Form F-3 of the Registrant (File No. 333-200660) and the prospectus, forming a part thereof.

DOCUMENTS FILED AS PART OF THIS FORM 6-K

See Exhibit Index hereto.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Aptose Biosciences Inc.

Date: May 10, 2017

By: /s/ Gregory Chow
Name: Gregory Chow
Title: Senior Vice President and Chief Financial Officer

EXHIBIT LIST

- 99.1 Notice and Management Proxy Circular
- 99.2 Form of Proxy



Notice and Management Proxy Circular

**For the
Annual Meeting of Shareholders
to be held on June 6, 2017**

April 18, 2017

Aptose Biosciences Inc.
Notice of 2016 Annual Meeting of Shareholders

NOTICE IS HEREBY GIVEN that the annual meeting (the “Meeting”) of shareholders of Aptose Biosciences Inc. (the “Corporation”) will be held at the offices of McCarthy Tétrault LLP, Toronto Dominion Bank Tower, 66 Wellington Street West, Suite 5300, Toronto, Ontario on June 6, 2017 at 10:00 a.m. (Toronto time).

What the Meeting is About

The following items of business will be covered at the Meeting:

1. receiving the financial statements of the Corporation for the fiscal year ended December 31, 2016, including the auditor’s report thereon;
2. appointing KPMG LLP as auditor of the Corporation for the fiscal year ending December 31, 2017 and authorizing the directors to fix its remuneration;
3. electing directors;
4. to transact such other business as may be properly brought before the Meeting.

The Meeting may also consider other business that properly comes before the Meeting or any adjournment of the Meeting. The management proxy circular accompanying this notice of meeting provides additional information relating to the matters to be dealt with at the Meeting and forms part of this notice.

You have the right to vote

You are entitled to receive notice of and vote at the Meeting, or any adjournment, if you are a holder of common shares of the Corporation at the close of business on April 28, 2017.

You have the right to vote your shares on items 2 and 3 listed above and any other items that may properly come before the Meeting or any adjournment.

Your vote is important

If you are not able to be present at the Meeting, please exercise your right to vote by signing and returning the enclosed form of proxy to Computershare Investor Services Inc., 100 University Avenue, 8th Floor, Toronto, Canada M5J 2Y1, so as to arrive not later than 10:00 a.m. on June 2, 2017 or, if the Meeting is adjourned, 48 hours (excluding Saturdays, Sundays and holidays) before any adjournment of the Meeting.

BY ORDER OF THE BOARD OF DIRECTORS

William G. Rice, Ph.D.
Chairman, President and Chief Executive Officer
April, 18, 2017

MANAGEMENT PROXY CIRCULAR

April 18, 2017

PROXY INFORMATION

Solicitation of Proxies

The information contained in this management proxy circular (the “Circular”) is furnished in connection with the solicitation of proxies to be used at the annual meeting (the “Meeting”) of holders (the “Shareholders”) of common shares (the “Shares”) of Aptose Biosciences Inc. (the “Corporation”, “Aptose”, “we” or “our”) to be held on June 6, 2017 at 10:00 a.m. (Toronto time) at the offices of McCarthy Tétrault LLP, Toronto Dominion Bank Tower, 66 Wellington Street West, Suite 5300, Toronto, Ontario and at all adjournments thereof, for the purposes set forth in the accompanying notice of meeting (the “Notice of Meeting”). It is expected that the solicitation will be made primarily by mail but proxies may also be solicited personally by directors, officers, employees or agents of the Corporation. The solicitation of proxies by this Circular is being made by or on behalf of the management of the Corporation. The total cost of the solicitation will be borne by Aptose.

The information contained in this Circular is given as at April 18, 2017 except where otherwise noted. All references to “dollar” or the use of the symbol “\$” are to Canadian dollars and use of the symbol “US\$” refers to United States dollars, unless otherwise indicated.

CAUTION REGARDING FORWARD-LOOKING STATEMENTS

This Circular contains forward-looking statements within the meaning of securities laws. Such statements include, but are not limited to the Corporation’s plans, objectives, expectations and intentions and other statements including words such as “anticipate”, “contemplate”, “continue”, “believe”, “plan”, “estimate”, “expect”, “intend”, “will”, “should”, “may”, and other similar expressions.

Such statements reflect our current views with respect to future events and are subject to risks and uncertainties and are necessarily based upon a number of estimates and assumptions that, while considered reasonable by us are inherently subject to significant business, economic, competitive, political and social uncertainties and contingencies. Many factors could cause our actual results, performance or achievements to be materially different from any future results, performance, or achievements that may be expressed or implied by such forward-looking statement. See our annual information form on Form 20-F dated March 28, 2017 for the year ended December 31, 2016 for additional information. A copy of this document can be found on SEDAR at www.sedar.com, however we will promptly provide a copy of this document to any securityholder of the Corporation free of charge upon request.

ABOUT VOTING YOUR SHARES

Appointment of Proxies

This is the easiest way to vote. Voting by proxy means that you are giving the person or people named on your proxy form (the “proxyholder”) the authority to vote your Shares for you at the Meeting or any adjournment. A proxy form is included with this Circular.

The persons named on the proxy form will vote your Shares for you, unless you appoint someone else to be your proxyholder. You have the right to appoint a person to represent you at the Meeting other than the persons named on the proxy form. If you appoint someone else, he or she must be present at the Meeting to vote your Shares. If you want to appoint someone else, you can insert that person's name in the blank space provided in the form of proxy. That other person does not need to be a Shareholder of the Corporation.

If you are voting your Shares by proxy, our transfer agent, Computershare Investor Services Inc. ("Computershare"), must receive your completed proxy form by 10:00 a.m. (Toronto time) on June 2, 2017 or, if the Meeting is adjourned, 48 hours (excluding Saturdays, Sundays and holidays) before any adjournment of the Meeting.

Registered Shareholders

You are a registered Shareholder if your name appears on your Share certificate. Your proxy form tells you whether you are a registered Shareholder.

Non-Registered (or Beneficial) Shareholders

You are a non-registered (or beneficial) Shareholder if your bank, trust company, securities broker or other financial institution holds your Shares for you (your nominee). For most of you, your voting instruction form or proxy tells you whether you are a non-registered (or beneficial) Shareholder.

In accordance with Canadian securities law, we have distributed copies of the Notice of Meeting, this Circular and the form of proxy (collectively, the "meeting materials") to CDS Clearing and Depository Services Inc. and intermediaries (such as securities brokers or financial institutions) for onward distribution to those non-registered or beneficial Shareholders to whom we have not sent the meeting materials directly. We previously mailed to those who requested them, the audited financial statements of the Corporation for the year ended December 31, 2016 and the auditor's report thereon as well as management's discussion and analysis.

The intermediaries are required to forward meeting materials to non-registered or beneficial Shareholders unless a non-registered or beneficial Shareholder has waived the right to receive them. Very often, intermediaries will use a service company such as Broadridge Investor Communication Solutions to forward the meeting materials to non-registered or beneficial Shareholders.

Non-registered or beneficial Shareholders who have not waived the right to receive meeting materials will receive either a voting instruction form or, less frequently, a form of proxy. The purpose of these forms is to permit non-registered or beneficial Shareholders to direct the voting of the Shares they beneficially own. Non-registered or beneficial Shareholders should follow the procedures set out below, depending on what type of form they receive.

- A. Voting Instruction Form. In most cases, a non-registered Shareholder will receive, as part of the meeting materials, a voting instruction form. If the non-registered Shareholder does not wish to attend and vote at the Meeting in person (or have another person attend and vote on the non-registered Shareholder's behalf), the voting instruction form must be completed, signed and returned in accordance with the directions on the form. If a non-registered Shareholder wishes to attend and vote at the Meeting in person (or have another person attend and vote on the non-registered Shareholder's behalf), the non-registered Shareholder must complete, sign and return the voting instruction form in accordance with the directions provided and a form of proxy giving the right to attend and vote will be forwarded to the non-registered Shareholder.
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or

- B. Form of Proxy. Less frequently, a non-registered Shareholder will receive, as part of the meeting materials, a form of proxy that has already been signed by the intermediary (typically by a facsimile or stamped signature), which is restricted as to the number of Shares beneficially owned by the non-registered Shareholder but which is otherwise uncompleted. If the non-registered Shareholder does not wish to attend and vote at the Meeting in person (or have another person attend and vote on the non-registered Shareholder's behalf), the non-registered Shareholder must complete the form of proxy and deposit it with Computershare, 100 University Avenue, 8th Floor Toronto, Canada, M5J 2Y1 as described above. If a non-registered Shareholder wishes to attend and vote at the Meeting in person (or have another person attend and vote on the non-registered Shareholder's behalf), the non-registered Shareholder must strike out the names of the persons named in the proxy and insert the non-registered Shareholder's (or such other person's) name in the blank space provided.

Non-registered Shareholders should follow the instructions on the forms they receive and contact their intermediaries promptly if they need assistance.

Meeting Materials

The meeting materials are being sent to both registered and non-registered owners of Shares. The Corporation is sending this Circular and other meeting materials indirectly to non-objecting beneficial owners (as defined in National Instrument 54-101 - *Communication with Beneficial Owners of Securities of a Reporting Issuer* ("NI 54-101")). The Corporation intends to pay for intermediaries to forward to objecting beneficial owners (as defined in NI 54-101) this Circular and other meeting materials.

Changing Your Vote

A registered Shareholder who has given a proxy may revoke that proxy by:

- (a) completing and signing a proxy bearing a later date and depositing it with Computershare as described above;
- (b) depositing an instrument in writing executed by the Shareholder or by the Shareholder's attorney authorized in writing:
 - (i) at our registered office at any time before 10:00 a.m. on June 2, 2017, or on the last business day before any adjournment of the Meeting at which the proxy is to be used, or
 - (ii) with the chair of the Meeting prior to the commencement of the Meeting on the day of the Meeting or any adjournment of the Meeting; or
- (c) in any other manner permitted by law.

A non-registered or beneficial Shareholder may revoke a voting instruction form or a waiver of the right to receive meeting materials and to vote given to an intermediary or to the Corporation, as the case may be, at any time by written notice to the intermediary or the Corporation, except that neither an intermediary nor the Corporation is required to act on a revocation of a voting instruction form or of a waiver of the right to receive materials and to vote that is not received by such intermediary or the Corporation, at least seven (7) days prior to the Meeting.

VOTING OF PROXIES

You can choose to vote “For”, “Against” or “Withhold”, depending on the item listed on the proxy form. The Shares represented by the proxy form will be voted for, voted against or withheld from voting in accordance with the instructions of the Shareholder on any ballot that may be called for and, if the Shareholder specifies a choice with respect to any matter to be acted upon, the Shares will be voted accordingly.

If you return your proxy form and do not tell us how you want to vote your Shares, your Shares will be voted by the management representatives named in the proxy form as follows:

- **FOR the appointment of KPMG LLP as auditor of the Corporation and the authorization of the directors to fix the auditor’s remuneration; and**
- **FOR the election of each of the directors nominated for election as listed in this Circular.**

The enclosed form of proxy confers discretionary authority upon the management representatives designated in the form of proxy with respect to amendments to or variations of matters identified in the Notice of Meeting and with respect to other matters that may properly come before the Meeting. At the date of this Circular, management of the Corporation knows of no such amendments, variations or other matters.

VOTING SECURITIES AND PRINCIPAL HOLDERS OF VOTING SECURITIES

As of the date hereof, 19,524,906 Shares are issued and outstanding. Each holder of Shares of record at the close of business on April 28, 2017, the record date established for notice of the Meeting, will be entitled to one vote for each Share held on all matters proposed to come before the Meeting, except to the extent that the Shareholder has transferred any Shares after the record date and the transferee of such Shares establishes ownership of them and makes a written demand, not later than 10 days prior to the Meeting, to be included in the list of Shareholders entitled to vote at the Meeting, in which case the transferee will be entitled to vote such Shares.

To the knowledge of Aptose’s directors and executive officers, no single person or entity beneficially owns, directly or indirectly, or exercises control or direction over more than 10% of the votes attached to all the outstanding Shares.

PARTICULARS OF MATTERS TO BE ACTED UPON

1. Financial Statements

At the Meeting, Shareholders will receive and consider the financial statements of the Corporation for the fiscal year ended December 31, 2016 and the auditor’s report thereon, but no vote by the Shareholders with respect thereto is required or proposed to be taken.

2. Appointment and Remuneration of the Auditor

The Board of Directors of the Corporation (the "Board"), on the Audit Committee's advice, recommends the appointment of KPMG LLP, as auditor of the Corporation. The auditor will be in office until the next annual Shareholders' meeting or until a successor is named.

Unless you have specified in the enclosed form of proxy that the votes attaching to the Shares represented by the proxy are to be withheld with respect to the appointment of the auditor, on any ballot that may be called for in the appointment of the auditor, the management representatives designated in the enclosed form of proxy intend to vote the Shares in respect of which they are appointed proxy FOR the appointment of KPMG LLP, Chartered Professional Accountants, as auditor of the Corporation to hold office until the next annual meeting of Shareholders, and authorizing the directors to fix the remuneration of the auditor.

3. Election of Directors

Unless they resign, all directors elected at the Meeting will hold office until our next annual meeting of Shareholders or until their successors are elected or appointed.

Unless you have specified in the enclosed form of proxy that the votes attaching to the Shares represented by the proxy are to be withheld with respect to the election of each of the directors, on any ballot that may be called for in the election of directors, the management representatives designated in the enclosed form of proxy intend to vote the Shares in respect of which they are appointed proxy FOR the election as directors of each of the proposed nominees whose names are set forth below.

Pursuant to the articles of the Corporation, the number of directors of the Corporation is set at a minimum of three and a maximum of eleven and the directors are authorized to determine the actual number of directors to be elected from time to time. The Corporation currently has six directors, all of which are being proposed for nomination at the Meeting.

On February 24, 2014, the Board adopted a majority voting policy (the "Majority Voting Policy"). The Majority Voting Policy applies to this election of directors. Under such policy, a director nominee who is elected in an uncontested election with a greater number of votes "withheld" than votes "for" will be considered by the Board not to have received the support of the Shareholders, even though duly elected as a matter of corporate law. Such a nominee will be expected to provide forthwith his or her resignation to the Board, effective on acceptance by the Board. Unless special circumstances apply, the Board will accept the resignation. Within ninety (90) days following the applicable meeting of the Shareholders, the Board will determine whether to accept or reject the resignation offer that has been submitted. Following the Board's decision on the resignation, the Board will promptly disclose, via press release, its decision (including the reasons for rejecting the resignation offer, if applicable).

The following table sets out for all persons proposed to be nominated by management for election as director, the name and place of residence, all major positions and offices with the Corporation now held by them, the period during which they have served as directors of the Corporation, their present principal occupation and principal occupation for the preceding five years, and the number of Shares beneficially owned, directly or indirectly, by each of them, or over which they exercise control or direction as at the date hereof.

The Corporation has an Audit Committee, a Corporate Governance and Nominating Committee and a Compensation Committee.

Name of Director, Province/State and Country of Residence	Director Since	Present and Past Principal Occupation or Employment	No. of Shares Beneficially Owned, Controlled or Directed
Dr. Denis Burger ⁽¹⁾⁽²⁾⁽⁴⁾ Oregon, United States	September 2007	Chief Scientific Officer of Cytodyn Inc. (2015 to present) President, Yamhill Valley Vineyards, Inc. (1983 to present) (vineyards) Founding Chairman, Director, Trinity Biotech plc. (1992 to 1995 Chairman, 1995 to present as Director) (biotechnology company)	13,499 Shares
Dr. Erich Platzer ⁽²⁾ Basel, Switzerland	December 2014	Serves on several Boards of Directors (2003 to present) Investment Advisor, HMB Partners AG (2003 to 2015) (healthcare investment firm)	8,500 Shares
Dr. William G. Rice California, United States	October 2013	Chairman, President and Chief Executive Officer of the Corporation (2013 to present) Chairman, President and Chief Executive Officer, Cylene Pharmaceuticals Inc. (2003 to 2013) (biotechnology company)	12,000 Shares
Dr. Bradley Thompson ⁽¹⁾⁽²⁾⁽³⁾ Alberta, Canada	June 2013	Chief Executive Officer, Kickshaw Ventures Ltd. (December 2016 to present) President and Chief Executive Officer, Oncolytics Biotech Inc. (1999 to 2016) (biotechnology company)	Nil
Dr. Mark D. Vincent ⁽³⁾ Ontario, Canada	September 2007	Physician; consultant medical oncologist, London Regional Cancer Program of Cancer Care Ontario (1990 to present) (cancer care facility) Professor of Oncology, Western University of Ontario (2008 to present) (university)	1,500 Shares

Name of Director, Province/State and Country of Residence	Director Since	Present and Past Principal Occupation or Employment	No. of Shares Beneficially Owned, Controlled or Directed
Warren Whitehead ⁽¹⁾ Ontario, Canada	April 2011	Financial Consultant (self-employed) (2015 to present) Serves on several Boards of Directors (2009 to present) Chief Financial Officer, ProMIS Neurosciences (formerly Amorfix Life Sciences) (2013 to 2015)(biotechnology company)	3,000 Shares

- (1) Member of the Audit Committee.
(2) Member of the Compensation Committee.
(3) Member of the Corporate Governance and Nominating Committee.
(4) Lead Director of the Corporation.

The information as to principal occupation, business or employment and Shares beneficially owned or controlled is not within the knowledge of management of the Corporation and has been furnished by the respective nominees.

Dr. Denis Burger: Dr. Burger currently is the Chief Scientific Officer and member of the board of directors of Cytodyn Inc. (a biotechnology company) as well as Chairman of AMES Devices (a medical device company). Dr. Burger co-founded Trinity Biotech plc, based in Dublin, Ireland, in June 1992 and acted as Chairman from 1992 to 1995 and now serves on the board of directors of the company. Dr. Burger was the past Chairman, Chief Executive Officer and a director of AVI Biopharma Inc., an Oregon based biotechnology company, from 1992 to March 2007. Dr. Burger is also a partner in Sovereign Ventures, a healthcare consulting and funding firm based in Portland, Oregon. Dr. Burger received his MSc and Ph.D. in Microbiology and Immunology from the University of Arizona.

Dr. Erich Platzer: Dr. Platzer is a board certified physician in internal medicine, hematology and medical oncology. Previously, Dr. Platzer served as the business director of oncology, as well as the global strategic marketing and therapeutic area head of oncology at Roche, Basel. He was also the medical director in oncology and global development project leader and was responsible for various strategic corporate partnerships. Dr. Platzer is a director of Swiss Business Angel Groups, StartAngels and BioBAC, and has served as a pharmaceutical industry expert on the board of directors of multiple biotech companies in both the U.S. and Europe such as Probiobdrug, AOT, Léman Micro Devices, Credentis, and Viroblock. Dr. Platzer co-founded HBM Healthcare Investments (formerly HBM BioVentures) a global leader in healthcare investing. He has over 12 years of experience in academic medicine and research and was a key member of the team at MSKCC that purified human G-CSF in 1983 (recombinant form: Neupogen®). He earned his M.D. from the Medical School and the Institute of Clinical Immunology and Rheumatology of the University of Erlangen, where he also received his “Dr. med. habil.” (M.D., Ph.D.).

Dr. William G. Rice: Dr. Rice joined Aptose as Chairman and Chief Executive Officer in October 2013. Prior to joining Aptose, Dr. Rice served as the President, Chief Executive Officer and Chairman of the board of Cylene Pharmaceuticals, Inc., a private biotechnology company (“Cylene”). Prior to Cylene, Dr. Rice was the founder, President, Chief Executive Officer and Director of Achillion Pharmaceuticals, Inc. He also served as Senior Scientist and Head of the Drug Mechanism Laboratory at the National Cancer Institute-Frederick Cancer Research and Development Center, and served as a faculty member in the division of Pediatric Hematology and Oncology at Emory University School of Medicine. Dr. Rice received his Ph.D. from Emory University Department of Biochemistry. He continues to serve as the Chairman of the board of Cylene and is a member of the board of directors of Oncolytics Biotech Inc.

Dr. Brad Thompson: Dr. Thompson is an experienced biotechnology professional who is CEO of Kickshaw Ventures Ltd. since December 2016. Prior to his role with Kickshaw, Dr. Thompson was Chairman of the Board, President and Chief Executive Officer of Oncolytics Biotech Inc. from April 1999 to November 2016 and Chief Executive Officer of Synsorb Biotech from 1994 to 1999. He received his Ph.D. from the University of Western Ontario in the Department of Microbiology and Immunology.

Dr. Mark Vincent: Dr. Mark Vincent is a Professor of Oncology at the University of Western Ontario and a staff medical oncologist at the London Regional Cancer Program, where he has been since 1990. Dr. Vincent is also the co-founder and Chief Executive Officer of Sarissa, Inc. since 2000.

Mr. Warren Whitehead: Mr. Whitehead is a CPA (CMA) who has held senior financial management positions in several biotechnology and pharmaceutical companies. Most recently Mr. Whitehead was the Chief Financial Officer of ProMIS Neurosciences Inc. (formerly Amorfix Life Sciences Ltd.). Prior to this, he served as Chief Financial Officer of ARIUS Research Inc., providing financial guidance and leadership during the acquisition of ARIUS by Roche in 2008. Prior to ARIUS, Mr. Whitehead was Chief Financial Officer at Labopharm Inc., where he completed a series of public equity financings and a listing on NASDAQ. He is currently the Chairman of the board of directors of PlantForm Corporation.

No proposed director is, to the knowledge of the Corporation as at the date of the Circular, or has been, within ten (10) years before the date of this Circular, a director, chief executive officer or chief financial officer of any company (including Aptose) that: (i) was subject to a cease trade order, an order similar to a cease trade order or an order that denied the relevant company access to any exemption under Canadian securities legislation that was in effect for a period of more than 30 consecutive days, (ii) was subject to cease trade order, an order similar to a cease trade order or an order that denied the relevant company access to any exemption under Canadian securities legislation that was in effect for a period of more than 30 consecutive days that was issued after the proposed director ceased to be a director, chief executive officer or chief financial officer and which resulted from an event that occurred while that person was acting in the capacity as director, chief executive officer or chief financial officer, (iii) while that person was acting in that capacity, or within a year of that person ceasing to act in that capacity, became bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold its assets, or (iv) become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency, or become subject to or instituted any proceedings, arrangement or compromised with creditors, or had a receiver, receiver manager or trustee appointed to hold the assets of the proposed director.

Moreover, no proposed director of the Corporation has been subject, to the knowledge of the Corporation, to (i) any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority, or (ii) any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable securityholder in deciding whether to vote for a proposed director.

STATEMENT OF EXECUTIVE COMPENSATION
COMPENSATION DISCUSSION AND ANALYSIS

Composition of the Compensation Committee

The Board, upon the advice of the Compensation Committee, determines executive compensation. The Compensation Committee is currently comprised of independent Board members Dr. Burger, Dr. Platzer and Dr. Thompson. Dr. Burger is chair of the Compensation Committee. The Compensation Committee met 4 times during the period from January 1, 2016 until December 31, 2016. For more information on the Compensation Committee, please see the section entitled "Compensation" of the Corporation's Corporate Governance Practices attached hereto as Appendix A.

Members of the Compensation Committee each have direct experience relevant to compensation matters resulting from their respective current and past activities. The members of the Compensation Committee have experience dealing with compensation matters in comparable organizations, including public companies, as well as companies with a strong emphasis on governance in their current and former roles as principal executives.

Compensation Objectives and Philosophy

The Compensation Committee's mandate is to review and advise the Board on the recruitment, appointment, performance, compensation, benefits and termination of executive officers. The Compensation Committee also administers and reviews procedures and policies with respect to the Share Option Plan (as defined below), the SIP (as defined below), employee benefit programs, pay equity and employment equity and reviews executive compensation disclosure where it is publicly disclosed.

Aptose's executive compensation program is designed to:

- attract and retain qualified, motivated and achievement-oriented individuals by offering compensation that is competitive in the industry and marketplace;
- align executive interests with the interests of Shareholders; and
- ensure that individuals continue to be compensated in accordance with their personal performance and responsibilities and their contribution to the overall objectives of the Corporation.

These objectives are achieved by offering executives and employees a compensation package that is competitive and rewards the achievement of both short-term and long-term objectives of the Corporation. As such, our compensation package consists of three key elements:

- base salary and initial share options;
- short-term compensation incentives to reward corporate and personal performance through potential annual cash bonuses; and
- long-term compensation incentives related to long-term increase in Share value through participation in the Share Option Plan and SIPs.

The Compensation Committee reviews each of these items on a stand-alone basis and also reviews compensation as a total package. Adjustments to compensation are made as appropriate following a review of the compensation package as a whole.

Independent Advice

In March 2015, the Compensation Committee retained Radford (an Aon Consulting Company), to provide independent advice to the Compensation Committee. Radford was retained to assist in developing the Corporation's compensation philosophy and identifying a peer group of companies as well as perform an assessment of the competitiveness of the Corporation's executive compensation process. Radford does not provide any services to management. The Compensation Committee has sole authority to retain and terminate any compensation consultant to be used to assist it in the evaluation of executive officer compensation. The Compensation Committee has sole authority to approve such consultants' fees and retention terms and to obtain advice and assistance from internal or external legal, accounting or other advisors.

Radford did not provide any advice to the Compensation Committee in 2016.

Comparator Group

In 2015, the Corporation, with advice from Radford, its independent compensation consultant, reviewed the compensation of its executive officers against that of its compensation peer group. The Corporation developed a new comparator group taking into account direct competitors for talent, especially for industry specific roles. The comparator group is comprised of 20 publicly traded U.S. and Canadian biotechnology companies which range in size from approximately ½× to 3× the market capitalization of the Corporation (as of April 2015). The companies comprising the comparator group are as follows:

Comparator Group Companies	
Actinium Pharmaceuticals, Inc.	MediciNova, Inc.
Anthera Pharmaceuticals, Inc.	MEI Pharma, Inc.
Argos Therapeutics, Inc.	OncoGenex Pharmaceuticals, Inc.
ArQule, Inc.	Onconova Therapeutics, Inc.
AVEO Pharmaceuticals, Inc.	Oncothyreon Inc.
BIND Therapeutics, Inc.	OXiGENE, Inc.
Celator Pharmaceuticals, Inc.	Stemline Therapeutics, Inc.
CytRx Corporation	Sunesis Pharmaceuticals, Inc.
Fortress Biotech, Inc.	TetraLogic Pharmaceuticals Corporation
Heat Biologics, Inc.	Trillium Therapeutics Inc.

Pay Positioning

The Corporation targets total cash compensation (salary and short-term incentive) somewhat above the 50th percentile of the comparator group, and provides long-term incentive opportunities in the 50th to 75th percentile of the comparator group. The Compensation Committee believes that this aligns executive compensation with the long-term interests of shareholders and with the Corporation's strategy. In 2015, Radford provided detailed information to the Compensation Committee relating to compensation values, pay mix and incentive vehicles at the comparator group companies. In addition, the Compensation Committee considered compensation in relation to executives located in Central and Southern California which are regions of relatively higher cost of living and highly competitive for recruitment and retention. Based on this information and also taking into account experience in the role, scope of the role, performance and retention risk, the Compensation Committee set compensation for the executives for 2015 aligned with the target pay positioning set out above. Compensation for the executives was not compared to the comparator group by the Compensation Committee in 2016.

Base Salary — Initial Share Options

In establishing base salaries, the objective of the Compensation Committee is to establish levels that will enable Aptose to attract and retain executive officers that can effectively contribute to the long-term success of the Corporation. Base salary for each executive officer is determined by the individual's skills, abilities, experience, past performance and anticipated future contribution to the success of Aptose. The members of the Compensation Committee use their knowledge of the industry and of industry trends as well as independent third party consultants to assist with the determination of an appropriate compensation package for each executive officer. In certain cases, the Compensation Committee may recommend inclusion of automobile allowances, fitness allowances and the payment of certain professional dues as a component of an overall remuneration package for executives.

In certain cases, executive officers may be granted share options on the commencement of employment with Aptose in accordance with the responsibility delegated to each executive officer for achieving corporate objectives and enhancing shareholder value in accordance with those objectives.

Short-Term Compensation Incentives

The role of short-term compensation incentives at Aptose is to motivate our executive officers to achieve specified performance objectives for 2016 and to reward them for their achievement in the event that those objectives are met. Each year, the Compensation Committee approves the annual corporate objectives encompassing scientific, clinical, regulatory, business and corporate development and financial criteria. The annual cash bonus for the executive officers is based, at least in part, on the level of achievement of these annual objectives, assuming these objectives are still relevant at the time of evaluation.

All corporate and executive officer objectives are reviewed by the Compensation Committee and approved by the Board. The Compensation Committee recommends to the Board the awarding of bonuses, payable in cash, stock or share options, to reward extraordinary individual performance.

For each executive officer, during the year ended December 31, 2016, the annual cash bonuses ranged from 20% to 25% of base salary.

Cash bonuses are determined as soon as practicable after the end of the fiscal year and, for the Named Executive Officers (as defined hereinafter), are included in the Summary Compensation Table in the year in respect of which they are earned.

Long-Term Incentive Plans

The role of long-term compensation incentives at Aptose is to reward an executive's contribution to the attainment of Aptose's long-term objectives, align an executive's performance with the long-term performance of Aptose and to provide an additional incentive for an executive to enhance shareholder value. Long-term incentive compensation for directors, officers, employees and consultants is reviewed annually and may be accomplished through the grant of share options under our share option plan (the "Share Option Plan") and of stock-based awards comprised of restricted stock units (the "Restricted Stock Units") or dividend equivalents (the "Dividend Equivalents") under our stock incentive plan (the "SIP").

The number of options granted for certain executives of Aptose for the year ended December 31, 2016 was based on achievement of both corporate and executive officer objectives. The Compensation Committee approves the allocation of options and options are priced using the closing market price of the Shares on the TSX on the last trading day prior to the grant. Options to purchase Shares expire ten years from the date of grant and vest over a term determined by the Compensation Committee. The Compensation Committee takes into account previous grants of options when considering new grant of options.

The granting of options to Named Executive Officers is included in the Summary Compensation Table in the year in which they are earned.

Performance Metrics

The performance of the Named Executive Officers for the period ended December 31, 2016 was measured with respect to the following objectives:

- 1) Identification of new drug product formulation for APTO-253, submission of the root cause analysis for APTO-253 to the U.S. Food and Drug Administration, and return of APTO-253 to the clinic;
- 2) Expand pipeline with highly differentiated small molecule agent for hematologic malignancies;
- 3) Analyze corporate structure, implement financing alternatives and consider Board composition; and
- 4) Other research and development goals related to pipeline assets.

Each of the above objectives is weighted at 40%, 30%, 20% and 10% respectively in relation to assessment of satisfaction of overall corporate objectives and determination of any general corporate bonuses.

Hedge or Offset Instruments

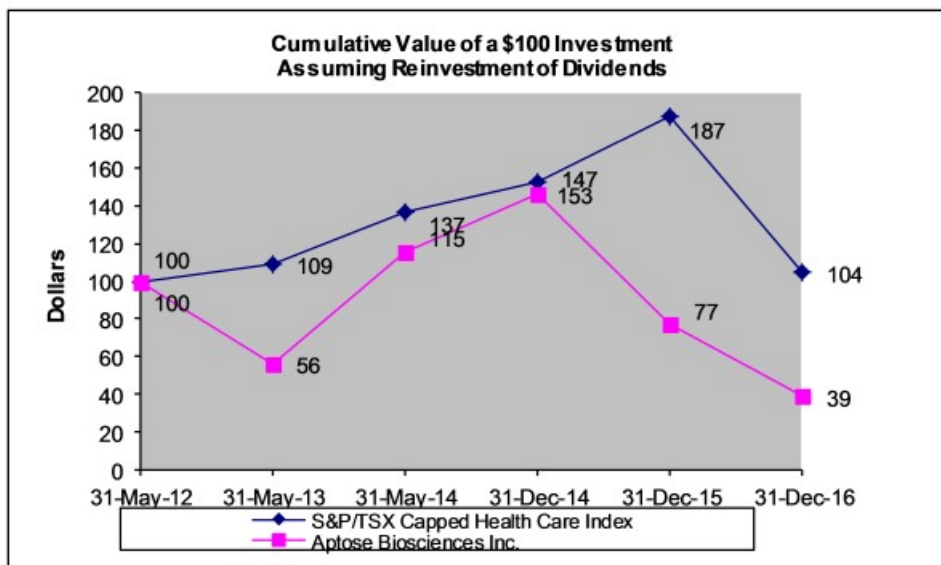
Named Executive Officers or directors are not permitted to purchase financial instruments that are designed to hedge or offset a decrease in market value of equity securities granted as compensation or held, directly or indirectly, by Named Executive Officers or directors, including, for greater certainty, prepaid variable forward contracts, equity swaps, collars, or units of exchange funds.

Risk Assessment of Compensation

The implications of the risks associated with the Corporation's compensation practices were not considered by the Board or a committee of the Board.

PERFORMANCE GRAPH

The following graph illustrates our cumulative total Shareholder return (assuming a \$100 investment) for the Shares on the TSX as compared with the S&P/TSX Capped Health Care Index during the period from May 31, 2012 to December 31, 2016.



Compensation levels for the Named Executive Officers have not fluctuated to the same degree as Shareholder returns. Compensation does not solely reflect consideration of Corporation performance. Instead, compensation is determined in light of an overall compensation package that is considered appropriate in the circumstances. The Aptose value trend was increasing from the time of the arrival of the new executive team in late 2013, but the value trend decreased at the end of 2015 and through 2016 due to the clinical hold with APTO-253.

SUMMARY COMPENSATION TABLE

The following table details the compensation information for the fiscal years ended December 31, 2015 and December 31, 2016 as well as the seven month transition period ended December 31, 2014 of the Corporation, for the Chairman, President and Chief Executive Officer, the Senior Vice President and Chief Financial Officer and the Senior Vice President and Chief Business Officer (each, an “NEO” and, collectively the “Named Executive Officers”):

Name and Principal Position	Fiscal Year or Seven Months Ended ⁽⁷⁾	Salary ⁽²⁾ (\$)	Share-based awards (\$)	Option-based awards (\$)	Non-equity incentive plan compensation		Pension value (\$)	All other compensation (\$)	Total compensation (\$)
					Annual incentive plans ⁽³⁾ (\$)	Long-term incentive plans (\$)			
Dr. William G. Rice Chairman, President and Chief Executive Officer	Dec. 31, 2016	694,280	N/A	179,400 ⁽⁷⁾	173,570 ⁽⁸⁾	Nil	N/A	Nil	1,047,250
	Dec. 31, 2015	642,813	N/A	634,464 ⁽¹⁾	115,093 ⁽⁴⁾	Nil	N/A	Nil	1,392,370
	Dec. 31, 2014 ⁽⁶⁾	321,493	N/A	1,868,145 ⁽⁶⁾	141,217 ⁽³⁾⁽⁴⁾	Nil	N/A	Nil	2,330,805
Mr. Gregory K. Chow Senior Vice President and Chief Financial Officer	Dec. 31, 2016	442,527	N/A	179,400 ⁽⁷⁾	88,505 ⁽⁸⁾	Nil	N/A	Nil	710,432
	Dec. 31, 2015	409,762	N/A	317,232 ⁽¹⁾	66,066 ⁽⁴⁾	Nil	N/A	Nil	793,060
	Dec. 31, 2014 ⁽⁶⁾	201,573	N/A	381,345 ⁽⁵⁾	81,525 ⁽³⁾	Nil	N/A	Nil	664,443
Mr. Avanish Vellanki Former Senior Vice President and Chief Business Officer ⁽⁹⁾	Dec. 31, 2016	442,527	N/A	179,400 ⁽⁷⁾	85,505 ⁽⁸⁾	Nil	N/A	Nil	710,432
	Dec. 31, 2015	409,762	N/A	317,232 ⁽¹⁾	66,066 ⁽⁴⁾	Nil	N/A	Nil	793,060
	Dec. 31, 2014 ⁽⁶⁾	201,573	N/A	381,345 ⁽⁵⁾	81,525 ⁽³⁾	Nil	N/A	Nil	664,443
Mr. Ernest Kitt Vice President of Development and Technical Operations ⁽¹⁰⁾	Dec. 31, 2016	290,254	N/A	74,750 ⁽⁷⁾	19,033 ⁽⁸⁾	Nil	N/A	Nil	384,037
	Dec. 31, 2015	119,607	N/A	105,740 ⁽¹⁾	72,515 ⁽¹⁰⁾	Nil	N/A	Nil	297,862
	Dec. 31, 2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ms. Elizabeth Williams Former Vice President of Finance and Administration ⁽¹¹⁾	Dec. 31, 2016	174,477	N/A	59,800 ⁽⁷⁾	Nil	Nil	N/A	Nil	234,277
	Dec. 31, 2015	155,692	N/A	105,740 ⁽¹⁾	15,478	Nil	N/A	Nil	276,910
	Dec. 31, 2014 ⁽⁶⁾	65,697	N/A	5,400 ⁽⁵⁾	19,200	Nil	N/A	Nil	90,297

- (1) In determining the fair value of these option-based awards, the Black-Scholes valuation methodology was used with the following assumptions: (i) expected life of five years; (ii) volatility 103.5%; (iii) risk free interest rate of 1.09%; and (iv) no dividend yield. The Corporation has decided to use the Black-Scholes valuation methodology because it is equivalent to the option value reported in the Corporation’s consolidated financial statements.
- (2) Dr. Rice, Mr. Chow and Mr. Vellanki and Mr. Kitt are paid in US dollars. Amounts are shown in Canadian dollars translated from US dollars based on the exchange rates prevailing on the date of the transaction. The average exchange rate was US\$1 = \$1.3248 in the year ended December 31, 2016, US\$1 = \$1.2787 in the year ended December 31, 2015 and US\$1 = \$1.09 in the period ended December 31, 2014.
- (3) Annual incentive amounts represented the expected portion of payment that was made in fiscal 2015 allocated to the transition period (see note 6). Set objectives were not evaluated until May 31, 2015.
- (4) Annual incentive amounts relate to the period from January 1 to May 31, 2015. No bonus payments were rewarded for the period from June 1, 2015 to December 31, 2015.
- (5) In determining the fair value of these option-based awards, the Black-Scholes valuation methodology was used with the following assumptions: (i) expected life of five years; (ii) volatility of 120%; (iii) risk free interest rate of 1.5% and (iv) no dividend yield.
- (6) As of July 17, 2014, the Corporation changed its financial year end from May 31 to December 31. As such the period ending December 31, 2014 was for seven months.
- (7) In determining the fair value of these option-based awards, the Black-Scholes valuation methodology was used with the following assumptions: (i) expected life of five years; (ii) volatility 110%; (iii) risk free interest rate of 0.68%; and (iv) no dividend yield. The Corporation has decided to use the Black-Scholes valuation methodology because it is equivalent to the option value reported in the Corporation’s consolidated financial statements.
- (8) Annual incentive compensation relates to the period from January 1 to December 31, 2016.
- (9) Mr. Vellanki resigned as Senior Vice President and Chief Business Officer effective March 24, 2017.
- (10) Mr. Kitt joined the Corporation effective June 3, 2015. Annual incentive payment included sign on and relocation bonus of US\$40,000.
- (11) Ms. Williams resigned as Vice President of Finance and Administration effective December 16, 2016.

INCENTIVE PLAN AWARDS

Outstanding Share-Based Awards and Option-Based Awards

The following tables show all awards outstanding to each NEO as at December 31, 2016:

Name and Principal Position	Option-based Awards			Share-based Awards			
	Number of securities underlying unexercised options (#)	Option exercise price (\$)	Option expiration date	Value of unexercised in-the-money options (\$) ⁽¹⁾	Number of shares or units of shares that have not vested (#)	Market or payout value of share-based awards that have not vested (\$)	Market or payout value of vested share-based awards not paid out or distributed (\$)
Dr. William G. Rice Chairman, President and Chief Executive Officer	35,417	3.48	Oct 27, 2023	Nil	Nil	Nil	Nil
	65,136	7.32	Dec 10, 2023	Nil			
	5,281	6.96	Jan 29, 2024	Nil			
	140,000	6.00	Apr 10, 2024	Nil			
	396,129	5.70	Jun 15, 2024	Nil			
	120,000	6.96	Jun 9, 2025	Nil			
	60,000	3.82	Mar 31, 2026	Nil			
Mr. Gregory K. Chow Senior Vice President and Chief Financial Officer	35,417	9.36	Nov 4, 2023	Nil	Nil	Nil	Nil
	35,417	7.32	Dec 10, 2023	Nil			
	35,417	6.00	Apr 10, 2024	Nil			
	22,083	5.70	Jun 15, 2024	Nil			
	64,167	5.22	Jul 18, 2024	Nil			
	60,000	6.96	Jun 9, 2025	Nil			
	60,000	3.82	Mar 31, 2026	Nil			
Mr. Avanish Vellanki Former Senior Vice President and Chief Business Officer ⁽²⁾	35,417	9.36	Nov 4, 2023	Nil	Nil	Nil	Nil
	35,417	7.32	Dec 10, 2023	Nil			
	35,417	6.00	Apr 10, 2024	Nil			
	22,083	5.70	Jun 15, 2024	Nil			
	64,167	5.22	Jul 18, 2024	Nil			
	60,000	6.96	Jun 9, 2025	Nil			
	60,000	3.82	Mar 31, 2026	Nil			

Name and Principal Position	Option-based Awards			Share-based Awards			
	Number of securities underlying unexercised options (#)	Option exercise price (\$)	Option expiration date	Value of unexercised in-the-money options (\$) ⁽¹⁾	Number of shares or units of shares that have not vested (#)	Market or payout value of share-based awards that have not vested (\$)	Market or payout value of vested share-based awards not paid out or distributed (\$)
Mr. Ernest Kitt	20,000	6.96	Jun 9, 2025	Nil	Nil	Nil	Nil
Vice President of Development and Technical Operations	25,000	3.82	Mar 31, 2026	Nil			
Ms. Elizabeth Williams, Former Vice President of Finance and Administration ⁽³⁾	983	5.28	Jul 18, 2024	Nil	Nil	Nil	Nil
	7,083	2.58	Nov 28, 2021	Nil			
	5,167	2.16	Mar 8, 2022	Nil			
	8,333	5.70	Aug 1, 2022	Nil			
	10,937	6.00	Apr 10, 2024	Nil			
	10,000	6.96	Jun 9, 2025				

(1) These amounts are calculated based on the difference between the market value of the securities underlying the options on December 31, 2016 at the end of the fiscal year (\$1.91), and the exercise price of the options.

(2) Mr. Vellanki resigned as Senior Vice President and Chief Business Officer effective March 24, 2017.

(3) Ms. Williams resigned as Vice President of Finance and Administration effective December 16, 2016.

Value Vested or Earned During the Year

The following table sets forth for each NEO the value vested or earned on all option-based awards, share-based awards, and non-equity incentive plan compensation during the year ended December 31, 2016:

Name and Principal Position	Option-based awards – Value vested during the year (\$)	Share-based awards – Value vested during the year (\$)	Non-equity incentive plan compensation – Value earned during the year (\$)
Dr. William G. Rice Chairman, President and Chief Executive Officer	Nil	N/A	173,570
Mr. Gregory K. Chow Senior Vice President and Chief Financial Officer	Nil	N/A	88,505
Mr. Avanish Vellanki Former Senior Vice President and Chief Business Officer	Nil	N/A	88,505
Mr. Ernest Kitt Vice President of Development and Technical Operations	Nil	N/A	14,367
Ms. Elizabeth Williams Former Vice President of Finance and Administration	Nil	N/A	Nil

PENSION PLAN BENEFITS

The Corporation does not provide pension plan benefits to its Named Executive Officers or employees of the Corporation.

TERMINATION AND CHANGE OF CONTROL BENEFITS

The employment agreements of Dr. Rice, Mr. Chow and Mr. Vellanki provide that if their employment is terminated by the Corporation other than for cause, each of Dr. Rice, Mr. Chow and Mr. Vellanki shall be entitled to a payment equivalent to 12 months of their respective annual base salaries at the time of termination (Dr. Rice's December 31, 2016 annual base salary represents US\$509,334, Mr. Chow's December 31, 2016 annual base salary represents US\$334,184 and Mr. Vellanki's December 31, 2016 annual base salary represents US\$334,184), plus an amount equal to the average bonus remuneration received from the Corporation during the last three years of employment completed prior to the termination date, prorated based on the number of days the executive worked during the year of the termination. In addition, the employment agreements of Dr. Rice, Mr. Chow and Mr. Vellanki provide that certain payments related to health benefits will continue to be made for a period of 12 months following termination of their employment.

If the employment agreements are terminated by the Corporation other than for cause, then all unexercised options then held by each are governed by the terms of the Share Option Plan.

The employment agreements of Dr. Rice, Mr. Chow and Mr. Vellanki provide that, in the event their employment with the Corporation is terminated within three months immediately preceding or 12 months immediately following the consummation of a change of control, each of Dr. Rice, Mr. Chow and Mr. Vellanki would be eligible, subject to certain conditions, to receive a payment equivalent to 18 months of their annual base salaries at the time of termination, plus an amount equal to 150% of the average bonus remuneration received from the Corporation during the last three years of employment completed prior to the termination date, prorated based on the number of days the executive worked during the year of the termination, as well as continuation of the payments related to health benefits for a period of 12 months following the termination following a change of control.

Mr. Kitt is employed at will and his employment agreement does not provide for any termination benefits.

The following table sets out the amount that would have been payable to each NEO had there been a change of control of the Corporation on December 31, 2016 and the severance payment that would have been payable to each NEO had the Corporation terminated employment of the NEO without cause on December 31, 2016:

Name	Termination Without Cause	Change of Control
Dr. William G. Rice	US\$846,000 ⁽¹⁾	US\$1,228,000 ⁽²⁾
Mr. Gregory K. Chow	US\$498,000 ⁽¹⁾	US\$732,000 ⁽²⁾
Mr. Avanish Vellanki	US\$531,000 ⁽¹⁾⁽³⁾	US\$764,000 ⁽²⁾⁽³⁾
Mr. Ernest Kitt	US\$0	US\$0

- (1) This amount represents 12 months of annual base salary at the time of termination, plus an amount equal to the average bonus remuneration received from the Corporation during the last three years of employment completed prior to the termination date (assumed at 100%), prorated based on the number of days the executive worked during the year of the termination, as well as continuation of the payments related to health benefits for a period of 12 months following the termination.
- (2) This amount represents 18 months of annual base salary at the time of termination, plus an amount equal to 150% of the average bonus remuneration received (assumed at 100%) from the Corporation during the last three years of employment completed prior to the termination date, prorated based on the number of days the executive worked during the year of the termination, as well as continuation of the payments related to health benefits for a period of 12 months following the termination.
- (3) Mr. Vellanki resigned as Senior Vice President and Chief Business Officer effective March 24, 2017.

COMPENSATION OF DIRECTORS

The following table details the compensation received by each director for the year ended December 31, 2016:

Name	Fees earned ⁽¹⁾ (\$)	Share-based awards (\$)	Option- based awards (\$)	Non-equity incentive plan compensation (\$)	Pension value (\$)	All other Compensation (\$)	Total (\$)
Dr. Denis Burger	100,685	Nil	29,900	Nil	N/A	Nil	130,585
Dr. Bradley Thompson	63,590	Nil	29,900	Nil	N/A	Nil	93,490
Dr. Mark Vincent	52,992	Nil	29,900	Nil	N/A	Nil	82,892
Mr. Warren Whitehead	52,592	Nil	29,900	Nil	N/A	Nil	82,892
Dr. Erich Platzer	47,693	Nil	29,900	Nil	N/A	Nil	77,593

- (1) Directors are paid in US dollars. Amounts are shown in Canadian dollars translated from US using the average exchange rate was US\$1 = \$1.3248.

Dr. Rice did not receive any compensation for his role as a director of the Corporation.

In the year ended December 31, 2016, all directors received a grant of 10,000 options. The options vest 50% after one year, and 25% for each of the second and third years.

In January 2015, the Board approved certain changes related to the compensation of directors effective for the fiscal year 2015. As of January 1, 2015, directors were entitled to an annual fee of US\$30,000 with no per meeting fees. The lead director is entitled to an additional annual fee of US\$30,000. The chair of each committee is entitled to an annual fee of US\$10,000 with each committee member receiving an annual fee of US\$6,000 per committee. Upon appointment to the Board a director will be entitled to an option grant of 10,000 options and each year thereafter an additional grant of 6,000 options. Non-executive directors are reimbursed for any out-of-pocket travel expenses incurred in order to attend meetings. Executive directors are not entitled to directors' compensation.

Incentive Plan Awards

Outstanding Share-Based Awards and Option Based Awards

The following table sets forth for each director, other than Named Executive Officers who are directors, all option-based and share-based awards outstanding at December 31, 2016:

Name	Option-based Awards			Share-based Awards			
	Number of securities underlying unexercised options (#)	Option exercise price (\$)	Option expiration date	Value of unexercised in-the-money options (\$) ⁽¹⁾	Number of shares or units of shares that have not vested (#)	Market or payout value of share-based awards that have not vested (\$)	Market or payout value of vested share-based awards not paid out or distributed (\$)
Dr. Denis Burger	5,417	2.58	Nov 28, 2021	Nil	Nil	Nil	Nil
	4,166	2.16	Mar 8, 2022	Nil			
	1,250	5.70	Aug 1, 2022	Nil			
	2,500	6.00	Apr 10, 2024	Nil			
	22,000	6.77	Jan 15, 2025	Nil			
	10,000	3.82	Mar 30, 2026	Nil			
Dr. Erich Platzer	10,000	6.77	Jan 15, 2025	Nil	Nil	Nil	Nil
	10,000	3.82	Mar 30, 2026	Nil			
Dr. Bradley Thompson	3,750	6.00	Apr 10, 2024	Nil	Nil	Nil	Nil
	22,000	6.77	Jan 15, 2025	Nil			
	10,000	3.82	Mar 30, 2026	Nil			
Dr. Mark Vincent	1,250	2.58	Nov 28, 2021	Nil	Nil	Nil	Nil
	2,083	2.16	Mar 8, 2022	Nil			
	1,250	5.70	Aug 1, 2022	Nil			
	2,500	6.00	Apr 10, 2024	Nil			
	22,000	6.77	Jan 15, 2025	Nil			
	10,000	3.82	Mar 30, 2026	Nil			

Name	Option-based Awards				Share-based Awards		
	Number of securities underlying unexercised options (#)	Option exercise price (\$)	Option expiration date	Value of unexercised in-the-money options (\$) ⁽¹⁾	Number of shares or units of shares that have not vested (#)	Market or payout value of share-based awards that have not vested (\$)	Market or payout value of vested share-based awards not paid out or distributed (\$)
Mr. Warren Whitehead	1,250	2.58	Nov 28, 2021	Nil	Nil	Nil	Nil
	500	2.16	Mar 8, 2022	Nil			
	1,250	5.70	Aug 1, 2022	Nil			
	2,500	6.00	Apr 10, 2024	Nil			
	22,000	6.77	Jan 15, 2025	Nil			
	10,000	3.82	Mar 30, 2026	Nil			

(1) These amounts are calculated based on the difference between the market value of the securities underlying the options on December 31, 2016 at the end of the fiscal year (\$1.91), and the exercise price of the options.

Value Vested or Earned During the Year

The following table sets forth for each director the value vested or earned on all option-based awards, share-based awards, and non-equity incentive plan compensation during the year ended December 31, 2016.

Name	Option-based awards – Value vested during the year (\$)	Share-based awards – Value vested during the year (\$)	Non-equity incentive plan compensation – Value earned during the year (\$)
Dr. Denis Burger	Nil	Nil	Nil
Dr. Erich Platzer	Nil	Nil	Nil
Dr. Bradley Thompson	Nil	Nil	Nil
Dr. Mark Vincent	Nil	Nil	Nil
Mr. Warren Whitehead	Nil	Nil	Nil

INDEBTEDNESS

As of the date hereof, there is no indebtedness owing to the Corporation by any employees, officers or directors of the Corporation. The Corporation did not provide financial assistance to any employees, officers or directors for the purchase of securities during the year ended December 31, 2016 or from January 1, 2017 to the date hereof.

AUDIT COMMITTEE INFORMATION

Reference is made to the annual information form on Form 20-F of the Corporation dated March 28, 2017 for the year ended December 31, 2016, under the heading “Audit Committee Information” for a disclosure of information related to the Audit Committee required under Form 52-110F1 to National Instrument 52-110 – *Audit Committees* (“NI 52-110”). A copy of this document can be found on SEDAR at www.sedar.com, however we will promptly provide a copy of this document to any securityholder of the Corporation free of charge upon request.

DIRECTORS AND OFFICERS' LIABILITY

We purchase and maintain liability insurance for the benefit of directors and officers to cover any liability incurred by such person in such capacities. The policy provides for coverage in the amount of US\$20,000,000. For the period January 1, 2016 to December 31, 2016, the premium cost of this insurance was \$407,604.

MANAGEMENT CONTRACTS

The management functions of the Corporation are not, in any way, performed in a substantial degree by a person or persons other than the directors or the executive officers of the Corporation.

EQUITY COMPENSATION PLAN INFORMATION**Share Option Plan**

As of the date hereof, the total number of Shares available for issuance by the Corporation under the Share Option Plan and the Stock Incentive Plan is 3,416,859. As of the date hereof, the maximum number of Shares reserved for issuance collectively under the Share Option Plan and any other security based compensation arrangement may not exceed 17.5% of the Corporation's issued and outstanding Shares at any given time. As of the date hereof, there are outstanding options to purchase 2,295,581 Shares issued under the Share Option Plan, representing 11.75% of the issued and outstanding Shares of the Corporation and 150,000 Restricted Share Units issued under the Stock Incentive Plan, representing 0.75% of the issued and outstanding Shares of the Corporation. Therefore, 971,278 Shares remain available for future issuance under the Share Option Plan and the Stock Incentive Plan, representing 5% of the issued and outstanding Shares of the Corporation.

The Share Option Plan was established to advance the interests of Aptose by:

- providing Eligible Persons (as defined below) with additional incentives;
- encouraging stock ownership by Eligible Persons;
- increasing the interest of Eligible Persons in the success of Aptose;
- encouraging Eligible Persons to remain loyal to Aptose; and
- attracting new Eligible Persons to Aptose.

The Compensation Committee, as authorized by the Board, administers the Share Option Plan. The maximum total number of Shares available for issuance from treasury under the Share Option Plan together with the SIP and any other security based compensation arrangement is 17.5% of the Corporation's issued and outstanding Shares at any given time. Any exercise of options pursuant to the Share Option Plan will make new option grants available under the Share Option Plan, provided that the maximum number of Shares reserved for issuance collectively under the Share Option Plan and the SIP may not exceed 17.5% of the Corporation's issued and outstanding Shares at any given time.

Under the Share Option Plan, options may be granted to any executive officer, employee, subsidiary of an executive officer or employee, or consultant or consultant entity ("Eligible Persons"). The exercise price of options granted under the Share Option Plan is established by the Board and will be equal to the closing market price of the Shares on the TSX on the last trading day preceding the date of grant. If there is no trading on that date, the exercise price will be the average of the bid and ask on the TSX on the last trading date preceding the date of grant. If not otherwise determined by the Board, an option granted under the Share Option Plan will vest as to 50% on the first anniversary of the date of grant of the option and an additional 25% on the second and third anniversaries after the date of grant. The Board fixes the term of each option when granted, but such term may not be greater than 10 years from the date of grant. If the date on which an option expires pursuant to an option agreement occurs during, or within 10 days after the last day of, a black out period or other restriction period imposed on the trading of Shares by the Corporation, the expiry date for the option will be the last day of the 10-day period. Options are personal to the participant and a participant may not transfer an option except in accordance with the Share Option Plan.

The Share Option Plan does not limit insider participation and does not provide a maximum number of Shares which may be issued to an individual under the Share Option Plan.

The Board may, in its sole discretion, amend, suspend or terminate the Share Option Plan or any portion of it at any time in accordance with applicable legislation, without obtaining the approval of Shareholders. Such amendments could include: (i) amendments of a "housekeeping" nature; (ii) a change to the vesting provisions of options granted pursuant to the Share Option Plan; and (iii) a change to the termination provisions of options granted under the Share Option Plan which does not entail an extension beyond the original expiry date.

Any amendment to any provision of the Share Option Plan is subject to any required regulatory or Shareholder approval. The Corporation is, however, required to obtain the approval of the Shareholders for any amendment related to (i) the maximum number of Shares reserved for issuance under the Share Option Plan, and under any other security based compensation arrangements of the Corporation; (ii) a reduction in the exercise price for options held by insiders of the Corporation; and (iii) an extension to the term of options held by insiders of the Corporation.

If an option holder is terminated without cause, resigns or retires, each option that has vested will cease to be exercisable three months after the option holder's termination date. Any portion of an option that has not vested on or prior to the termination date will expire immediately. If an option holder is terminated for cause, each option that has vested will cease to be exercisable immediately upon the Corporation's notice of termination. Any portion of an option that has not vested on or prior to the termination date will expire immediately.

Stock Incentive Plan

The Corporation adopted the SIP following shareholder approval on June 10, 2015 pursuant to which the Board may grant stock-based awards comprised of Restricted Stock Units or Dividend Equivalents (collectively, the "Awards") to employees, officers, consultants, independent contractors, advisors and non-employee directors of the Corporation or any affiliate (the "SIP Participants").

The maximum total number of shares available for issuance under the SIP and any other security based compensation arrangement of the Corporation (including the Share Option Plan) is 17.5% of the number of issued and outstanding Shares. Any issuance of Shares covered by an Award or to which an Award relates will make new grants available under the SIP. Since the adoption of the SIP, no Awards have been granted.

Under the SIP, the Board may also grant Dividend Equivalents to SIP Participants under which the Participant shall be entitled to receive payments (in cash, Shares, other securities, other Awards or other property as determined in the discretion of a committee or subcommittee of the Board appointed from time to time by the Board to administer the SIP) equivalent to the amount of cash dividends paid by the Corporation to holders of Shares with respect to a number of shares determined by the Board.

The SIP does not limit insider participation and does not provide a maximum number of Shares which may be issued to an individual under the SIP. However, no director of the Corporation who is not also an employee of the Corporation or an affiliate may be granted any Awards that exceed in the aggregate \$150,000 (such value computed as of the date of grant in accordance with applicable financial accounting principles) in any calendar year.

Subject to the express provisions of the SIP and to applicable law, the Board shall have full power and authority to: (i) designate SIP Participants; (ii) determine the type of Awards to be granted to each SIP Participant under the SIP and the number of Shares to be covered by each Award; (iii) determine the terms and conditions of any Award or Award Agreement, including any terms relating to the forfeiture of any Award and the forfeiture, recapture or disgorgement of any cash, Shares or other amounts payable with respect to any Award; (iv) amend the terms and conditions of any Award or Award Agreement, subject to the limitations under Section 7 of the SIP; and (v) accelerate the exercisability of any Award or the lapse of any restrictions relating to any Award, subject to the limitations in Section 7 of the SIP.

Except as otherwise determined under the SIP, no Award and no right under such Award shall be transferable by a SIP Participant other than by will or by the laws of descent and distribution, and no Award or right under any such Award may be pledged, alienated, attached or otherwise encumbered.

The Board may from time to time amend, suspend or terminate the SIP, and the Board may amend or alter any previously granted Award, as applicable, without obtaining the approval of Shareholders in order to: (i) correct any defect, supply any omission or reconcile any inconsistency in the SIP or in any Award or award agreement in the manner and to the extent it shall deem desirable to implement or maintain the effectiveness of the SIP; (ii) amend the eligibility for, and limitations or conditions imposed upon, participation in the SIP; (iii) make changes that are necessary or desirable to comply with applicable laws, rules, regulations and policies of any applicable governmental entity or stock exchange; (iv) amend any terms relating to the administration of the SIP, including the terms of any administrative guidelines or other rules related to the SIP; or (v) make any other amendment, whether fundamental or otherwise, not requiring Shareholders' approval under TSX Company Manual, the rules or regulations of the United States SEC or any other securities exchange that are applicable to the Corporation.

Prior approval of the shareholders shall be required for any amendment to the Plan or an Award that would: (i) require shareholder approval under the TSX Company Manual, the rules or regulations of the SEC or any other securities exchange that are applicable to the Corporation; (ii) increase the maximum number of shares authorized under the SIP; (iii) increase the annual limit on Awards granted to non-employee directors; or (iv) amend the amendment provision of the SIP.

Except as otherwise determined under the SIP, upon a SIP Participant's termination of employment or resignation or removal as a Director during the applicable restriction period, all Restricted Stock Units held by such SIP Participant at such time shall be cancelled by the Corporation; provided, however, that the committee or subcommittee of the Board appointed by the Board from time to time to administer the SIP may waive in whole or in part any or all remaining restrictions with respect to Restricted Stock Units.

Employee Share Purchase Plan

We have an Employee Share Purchase Plan (“ESPP”), the purpose of which is to assist the Corporation in retaining the services of its employees, to secure and retain the services of new employees and to provide incentives for such persons to exert maximum efforts for the success of the Corporation. The ESPP provides a means by which employees of the Corporation and its affiliates may purchase Shares on the stock market at a 15% discount through accumulated payroll deductions. Eligible participants in the ESPP include all employees, including executive officers, who work at least 20 hours per week and are customarily employed by the Corporation or an affiliate of the Corporation for at least six months per calendar year. Generally, each offering is of three months’ duration with purchases occurring every quarter. Participants may authorize payroll deductions of up to 15% of their base compensation for the purchase of Shares under the ESPP.

During the year ended December 31, 2016, under the ESPP, Named Executive Officers, as a group, and employees did not purchase any Shares pursuant to the ESPP. Since December 31, 2016, there have been no Shares purchased pursuant to the ESPP.

SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS

The following table sets forth certain details as at the end of the year ended December 31, 2016 with respect to compensation plans pursuant to which equity securities of the Corporation are authorized for issuance.

Plan Category	Number of Shares to be issued upon exercise of outstanding options		Weighted-average exercise price of outstanding options (b)	Number of Shares remaining available for future issuance under the equity compensation plans (Excluding Shares reflected in Column (a))		Total options outstanding and available for grant	
	(a)			(c)		(a) + (c)	
	Number	% of Shares outstanding		Number	% of Shares outstanding	Number	% of Shares outstanding
Equity compensation plans approved by Shareholders	2,004,465	12.7%	\$ 5.79	746,777	4.8%	2,751,242	17.5%

INTEREST OF CERTAIN PERSONS IN MATTERS TO BE ACTED UPON

None of the directors or executive officers of the Corporation, none of the persons who have been directors or executive officers of the Corporation at any time since January 1, 2016, none of the proposed nominees for election as a director of the Corporation and none of the associates or affiliates of any of the foregoing has any material interest, direct or indirect, by way of beneficial ownership of securities or otherwise, in any matter scheduled to be acted upon at the Meeting other than the election of directors.

INTEREST OF INFORMED PERSONS IN MATERIAL TRANSACTIONS

Since the commencement of the Corporation's most recently completed fiscal year, no director, proposed director, officer, or associate of a director, proposed director or officer nor, to the knowledge of our directors or officers, after having made reasonable inquiry, any person or company who beneficially owns, directly or indirectly, Shares carrying more than 10% of the voting rights attached to all Shares outstanding at the date hereof, or any associate or affiliate thereof, had any material interest, direct or indirect, in any material transaction of the Corporation, nor do any such persons have a material interest, direct or indirect, in any proposed transaction of the Corporation.

STATEMENT OF CORPORATE GOVERNANCE PRACTICES

Corporate governance relates to the activities of the Board, the members of which are elected by and are accountable to the Shareholders, and takes into account the role of the individual members of management who are appointed by the Board and who are charged with the day-to-day management of Aptose. The Board believes that sound corporate governance practices are essential to contributing to the effective and efficient decision-making of management and the Board and to the enhancement of Shareholder value. The Board and management believe that Aptose has a sound governance structure in place for both management and the Board. Of particular note Aptose has:

- established a written mandate of the Board;
- established a written charter for the Audit Committee;
- established a written charter for the Compensation Committee;
- established a written charter for the Corporate Governance and Nominating Committee;
- established a written Disclosure and Insider Trading Policy; and
- established a written Code of Ethics.

National Instrument 58-101 — *Disclosure of Corporate Governance Practices* ("NI 58-101") and National Policy 58-201 — *Corporate Governance Guidelines* ("NP 58-201") requires issuers, including Aptose, to disclose the corporate governance practices that they have adopted. NP 58-201 provides guidance on governance practices. The Corporation is also subject to NI 52-110, which has been adopted in various Canadian provinces and territories and which prescribes certain requirements in relation to audit committees. The required disclosure under NI 58-101 is attached hereto as Appendix A.

2017 SHAREHOLDER PROPOSALS

For the next annual meeting of Shareholders of Aptose, Shareholders must submit any proposal that they wish to raise at that meeting on or before January 18, 2018.

ADDITIONAL INFORMATION

Additional information relating to us, including our most current annual information form on Form 20-F (together with documents incorporated therein by reference), our consolidated financial statements for the year ended December 31, 2016, the report of the auditor thereon, management's discussion and analysis of our financial condition and results of operations for the year ended December 31, 2016 can be found on the System for Electronic Document Analysis and Retrieval (SEDAR) at www.sedar.com. Copies of those documents are available upon written request to the Vice President of Finance and Administration of Aptose, free of charge to our securityholders. Our financial information is provided in our consolidated financial statements for the year ended December 31, 2016 and management's discussion and analysis of our financial condition and results of operations for the year ended December 31, 2016.

DIRECTORS' APPROVAL

The contents and sending of this Circular have been approved by our directors.

(signed) William G. Rice, Ph.D.
Chairman, President and Chief Executive Officer

APPENDIX A
Corporate Governance Practices

Aptose Biosciences Inc. (the “Corporation”) is committed to sound and comprehensive corporate governance policies and practices and is of the view that its corporate governance policies and practices, outlined below, are comprehensive and consistent with NP 58-201 and NI 52-110.

Board of Directors

The board of directors of the Corporation (the “Board”) encourages sound and comprehensive corporate governance policies and practices designed to promote the ongoing development of the Corporation.

Composition of the Board

The Corporation’s Board is currently composed of six directors, a majority of whom are independent directors. An “independent” board member, as further defined in NI 52-110, means that such member has no “material relationship” with the issuer. A “material relationship” is a relationship that could, in the view of the Board, be reasonably expected to interfere with the exercise of a member’s judgment. Each year the Board reviews the composition of the Board and assesses whether a Board member is “independent”.

Director	Independent
Denis Burger	Yes
Erich Platzer	Yes
William G. Rice	No
Bradley Thompson	Yes
Mark Vincent	Yes
Warren Whitehead	Yes

Dr. William G. Rice, Ph.D., Chairman, President and Chief Executive Officer of the Corporation is not an independent director because of his role in the Corporation’s management team.

The following table outlines other reporting issuers that Board members are directors of:

Director	Reporting Issuer
William G. Rice	Oncolytics Biotech Inc.
Denis Burger	Trinity Biotech plc CytoDyn Inc.
Erich Platzer	Probiodrug AG
Bradley Thompson	Oncolytics Biotech Inc.
Mark Vincent	—
Warren Whitehead	

As they deem appropriate, the independent directors meet without the presence of non-independent directors and members of management. During the year ended December 31, 2016, independent directors met once without the presence of management non-independent directors.

In 2014, further to the appointment of Dr. William G. Rice, Ph.D. as Chairman of the Board and Chief Executive Officer, the Corporation created the position of Lead Director to ensure that the directors have an independent leadership contact and maintain and enhance the quality of the Corporation’s corporate governance practices. Dr. Denis Burger, an independent director, is currently the Lead Director. The Lead Director provides leadership to the Board in discharging its mandate and also assists the Board in discharging its stewardship function, which includes (i) satisfying itself as to the integrity of the Chief Executive Officer and the other senior officers of the Corporation and that the Chief Executive Officer and other senior officers create a culture of integrity throughout the organization; (ii) strategic planning; (iii) identifying and managing risks; (iv) succession planning; (v) adopting a disclosure policy; (vi) internal control and management information systems; and (vii) the Corporation’s approach to corporate governance. In addition, the Lead Director provides advice, counsel and mentorship to the Chief Executive Officer.

The following table illustrates the attendance record of each director for all Board meetings held for the year ended December 31, 2016.

Director	Meetings Attended
Denis Burger	10 of 10
Erich Platzer	9 of 10
William G. Rice	10 of 10
Bradley Thompson	9 of 10
Mark Vincent	10 of 10
Warren Whitehead	10 of 10

Board Mandate

The Board has adopted a mandate in which it explicitly assumes responsibility for stewardship of the Corporation. The Board is mandated to represent the Shareholders to ensure appropriate succession planning is in place, select the appropriate chief executive officer, assess and approve the strategic direction of the Corporation, ensure that appropriate processes for risk assessment, management and internal control are in place, monitor management performance against agreed benchmarks, and assure the integrity of financial reports. A copy of the Board Mandate is attached hereto as Appendix B.

Position Descriptions

The Board has developed written position descriptions, which are reviewed annually, for the Chair and the chairs of each of the audit committee, the compensation committee and the corporate governance and nominating committee. The Chief Executive Officer also has a written position description that has been approved by the Board and is reviewed annually.

Orientation and Continuing Education

It is the mandate of the Corporate Governance and Nominating Committee to ensure that a process is established for the orientation and education of new directors that addresses the nature and operation of the Corporation's business and their responsibilities and duties as directors (including the contribution individual directors are expected to make and the commitment of time and resources that the Corporation expects from its directors).

The orientation includes an overview of the Corporation's history and operations, a review of industry conditions and competition, an introduction to the Corporation's management team and corporate and business information. Any further orientation is dependent on the needs of the new member and may include items such as formal training sessions and attendance at seminars.

With respect to the continuing education of directors, the Corporate Governance and Nominating Committee ensures that directors receive adequate information and continuing education opportunities on an ongoing basis to enable directors to maintain their skills and abilities as directors and to ensure their knowledge and understanding of the Corporation's business remains current.

Ethical Business Conduct

The Corporation has adopted a Code of Business Conduct and Ethics (the "Code") that applies to the directors, officers and employees of the Corporation and its subsidiaries. Additionally, consultants and agents for the Corporation are expected to abide by the Code.

The Corporate Governance and Nominating Committee regularly monitors compliance with the Code through communications with management and reports through the Disclosure and Insider Trading Policy (as described below) and ensures that management of the Corporation encourages and promotes a culture of ethical business conduct. A copy of the Code may be found at www.SEDAR.com under the Corporation's public profile and on our website at www.aptose.com.

The Corporation has developed a Disclosure and Insider Trading Policy that covers "whistle blowing" and provides an anonymous means for employees and officers to report violations of the Code or any other corporate policies.

The Board has not granted any waiver of the Code in favour of a director or officer of the Corporation. No material change reports have been filed since the beginning of the Corporation's most recently completed fiscal year that pertain to any conduct of a director or executive officer that constitutes a departure from the Code.

Conflicts of Interest

The Corporate Governance and Nominating Committee monitors the disclosure of conflicts of interest by directors and ensures that no director will vote or participate in a discussion on a matter in respect of which such director has a material interest.

Nomination of Directors

Directors of the Corporation are expected to bring to the Board the broadest possible knowledge and depth of experience from their chosen business or profession. Directors should evidence a demonstrated ability to deal with business, financial and social issues, both nationally and internationally. This implies a capacity to provide additional strength, diversity of views and up-to-date perceptions to the Board and its deliberations. It is the mandate of the Corporate Governance and Nominating Committee to identify and recommend qualified candidates for the Board. In assessing whether identified candidates are suitable for the Board, the Corporate Governance and Nominating Committee considers: (i) the competencies and skills considered necessary for the Board as a whole; (ii) the competencies and skills that the existing directors possess and the competencies and skills nominees will bring to the Board; and (iii) whether nominees can devote sufficient time and resources to his or her duties as a member of the Board. Potential candidates for membership on the Board will not be denied consideration by reason of race, sex, religion or affiliation with some special constituency group, nor will any candidate be selected solely for such reason.

In addition, the Corporate Governance and Nominating Committee assesses the participation, contribution and effectiveness of the individual members of the Board on an annual basis. All members of the Corporate Governance and Nominating Committee are independent in accordance with the mandate of the Corporate Governance and Nominating Committee.

Compensation

The Compensation Committee is responsible for reviewing and making recommendations to the Board regarding the corporate goals and objectives, performance and compensation of the Chief Executive Officer and other senior executive officers on an annual basis and evaluates the performance of the Chief Executive Officer and other senior executive officers. In addition, the Compensation Committee is responsible for making recommendations to the Board with respect to the compensation policies for the non-employee directors.

The Compensation Committee also reviews and makes recommendations regarding annual bonus policies for employees, the incentive-compensation plans and equity-based plans for the Corporation and reviews executive compensation disclosure before the Corporation publicly discloses this information.

Further information pertaining the compensation of directors and officers can be found in this Circular under the heading “Statement of Executive Compensation”.

Other Committees

The Board does not currently have any other committees.

Assessments

It is the Board’s mandate, in conjunction with the Corporate Governance and Nominating Committee, to assess the participation, contributions and effectiveness of the Chair and the individual members of the Board on an annual basis. The Board also monitors the effectiveness of the Board and its committees and the actions of the Board as viewed by the individual directors and senior management.

The Board has developed a formal questionnaire to be completed by each director on an annual basis for the purpose of formally assessing the effectiveness of the Board as a whole, committees of the Board, and the contribution of individual directors. These questionnaires, and the issues arising therefrom, are intended to be reviewed and assessed by the Lead Director on an annual basis or more frequently from time to time as the need arises. The Lead Director takes appropriate action as required based on the results obtained.

Director Term Limits and Other Mechanisms of Board Renewal

The Board has not adopted term limits for directors or other mechanisms of board renewal at this time as it believes that the imposition of director term limits or other mechanisms of board renewal on a board implicitly discounts the value of experience and continuity amongst the board members and runs the risk of excluding experienced and potentially valuable board members as a result of arbitrary determination. The Board believes that it can best strike a balance between continuity and fresh perspectives without mandated term limits or other mechanisms of board renewal.

Diversity

The Corporate Governance and Nominating Committee takes diversity, including diversity of experience, perspective, education, race and gender, into consideration as part of its overall recruitment and selection process in respect of its Board and management. The Corporation does not have a formal policy on the representation of women on the Board or management of the Corporation. The Board does not believe that a formal policy will necessarily result in the identification or selection of the best candidates. As such, the Corporation does not see any meaningful value in adopting a formal policy in this respect at this time as it does not believe that it would further enhance gender diversity beyond the current recruitment and selection process carried out by the Corporate Governance and Nominating Committee. However, the Board is mindful of the benefit of diversity on the Board and management of the Corporation and the need to maximize the effectiveness of the Board and management and their respective decision-making abilities.

The Corporate Governance and Nominating Committee believes that having a diverse Board and management team offers a depth of perspective and enhances Board and management operations. The Corporate Governance and Nominating Committee does not specifically define diversity, but values diversity of experience, perspective, education, race and gender as part of its overall annual evaluation of director nominees for election or re-election as well as candidates for management positions. Recommendations concerning director nominees are, foremost, based on merit and performance, but diversity is taken into consideration, as it is beneficial that a diversity of backgrounds, views and experiences be present at the Board and management levels.

In addition, in searches for new directors or officers, the Corporate Governance and Nominating Committee will consider the level of female representation and diversity on the Board and in management and this will be one of several factors used in its search process. This will be achieved through continuously monitoring the level of female representation on the Board and in management positions and, where appropriate, recruiting qualified female candidates as part of the Corporation's overall recruitment and selection process to fill Board or management positions, as the need arises, through vacancies, growth or otherwise. Due to the size of the Corporation, its activities, and its small number of employees, the Corporation has not set measurable objectives for achieving gender diversity. The Corporation will consider establishing measurable objectives as it develops.

The Board has not adopted targets regarding the representation of women on the Board and in executive officer positions due to the small size of the Corporation and the need to consider a balance of criteria in each individual appointment. It is important that each appointment to the Board or in executive officer positions be made, and be perceived as being made, on the merits of the individual and the needs of the Corporation at the relevant time. In addition, targets based on specific criteria such as gender could limit the Board's ability to ensure that the overall composition of the Board or management of the Corporation meets the needs of the Corporation. Currently none (0%) of the executive officers of the Corporation are women, and none (0%) of the directors are women.

APPENDIX B

APTOSE BIOSCIENCES INC.

BOARD MANDATE

Purpose

The board of directors (the “Board”) of Aptose Biosciences Inc. (the “Corporation”) is responsible for the proper stewardship of the Corporation. The Board is mandated to represent the shareholders to select the appropriate Chief Executive Officer (“CEO”), assess and approve the strategic direction of the Corporation, ensure that appropriate processes for risk assessment, management and internal control are in place, monitor management performance against agreed bench marks, and assure the integrity of financial reports.

Membership and Reporting

1. A majority of the directors of the Board will be “independent” as defined by National Instrument 58-101— *Disclosure of Corporate Governance Practices* (“NI 58-101”), U.S. securities laws and applicable stock exchange rules. The Board will have no more than the maximum set out in the Corporation’s articles and by-laws, which maximum number the Board will reassess from time to time having consideration for the particular needs of the Corporation.
2. Appointments to the Board will be reviewed on an annual basis. The Corporate Governance and Nominating Committee, in consultation with the CEO, is responsible for identifying and recommending new nominees with appropriate skills to the Board.
4. The Board will report to the shareholders of the Corporation.

Terms of Reference

Meetings

1. The Board will meet as required, but at least once quarterly.
2. The independent directors will meet as required, without the non-independent directors and members of management, but at least once quarterly.

Meeting Preparation and Attendance

3. In connection with each meeting of the Board and each meeting of a committee of the Board of which a director is a member, each director will:
 - (a) review thoroughly the materials provided to the directors in connection with the meeting and be adequately prepared for the meeting; and
 - (b) attend each meeting in person, by phone or by video-conference depending on the format of the meeting, to the extent practicable.
-

Corporate Planning and Performance

4. The Board will:

- (a) adopt a strategic planning process and approve a strategic plan each year; and
- (b) approve and monitor the operational plans and budgets of the Corporation submitted by management at the beginning of each fiscal year.

In establishing corporate performance objectives, the Board will:

- (a) ensure that it has adequate opportunity and information available to it to gain knowledge of the business and the industry sufficient to make fully informed decisions and to adopt meaningful and realistic long-term and short-term strategic objectives for the Corporation. This may include the opportunity for the Board to meet from time to time with industry, medical and scientific experts in related fields of interest;
- (b) ensure that effective policies and processes are in place relating to the proper conduct of the business, the effective management of risk and the values to be adopted by the Corporation; and
- (c) ensure that appropriate and effective environmental and occupational health and safety policies are in place, are operational and are supported by adequate resources.

5. The Board will:

- (a) ensure the integrity of the Corporation's financial reporting and internal control and disclosure policies and processes;
- (b) review the Corporation's quarterly and year-end audited financial statements;
- (c) review annual audit plans and findings and monitor the implementation of audit recommendations;
- (d) ensure that the Board has available to it any independent external advice that may be required from time to time; and
- (e) implement, or delegate the implementation of measures for receiving feedback from stakeholders.

Risk Management and Ethics

6. The Board will:

- (a) ensure that the business of the Corporation is conducted in compliance with applicable laws and regulations and according to the highest ethical standards;
 - (b) identify and document the financial risks and other risks that the Corporation faces in the course of its business and ensure that such risks are appropriately managed; and
 - (c) adopt a disclosure policy.
-

Shareholder Communication

7. The Board will ensure that effective communication and disclosure policies are in place between the Board and the Corporation's shareholders, other stakeholders and the public. The Board will determine, from time to time, the appropriate criteria against which to evaluate performance against shareholder expectations and will set corporate strategic goals and objectives within this context. The Board will regularly review its criteria for the evaluation of shareholder expectations to ensure that they remain relevant to changing circumstances.

Supervision of Management

8. The Board will:
- (a) to the extent feasible, satisfy itself as to the integrity of the CEO and other executive officers and that all such officers are creating a culture of integrity throughout the Corporation;
 - (b) ensure that the CEO is appropriately managing the business of the Corporation;
 - (c) ensure appropriate succession planning is in place (including appointing, training and monitoring senior management), in particular with respect to the CEO position;
 - (d) establish corporate objectives for the CEO annually and evaluate the performance of the CEO against these corporate objectives;
 - (e) consider and approve major business initiatives and corporate transactions proposed by management; and
 - (f) ensure the Corporation has internal control and management information systems in place.

Management of Board Affairs

9. The Board will:
- (a) ensure that an appropriate governance structure is in place, including a proper delineation of roles and clear authority and accountability among the Board, Board committees, the CEO and the Chief Financial Officer (or its functional equivalent);
 - (b) develop a process for the orientation and education of new members of the Board;
 - (c) support continuing education opportunities for all members of the Board;
 - (d) in conjunction with the Corporate Governance and Nominating Committee, assess the participation, contributions and effectiveness of the Chair of the Board, and individual Board members on an annual basis;
 - (e) monitor the effectiveness of the Board and its committees and the actions of the Board as viewed by the individual directors and senior management;
-

- (f) ensure that Board meetings operate effectively, agendas are focused on the governance role of the Board, and that the Board is able to function independently of management when required;
 - (g) ensure that effective governance policies are in place regarding the conduct of individual directors and employees, including but not limited to, policies relating to insider trading and confidentiality and conflict of interest;
 - (h) establish the committees of the Board it deems necessary or as required by applicable law to assist it in the fulfillment of its mandate; and
 - (i) disclose on an annual basis the mandate, composition of the Board and its committees.
-



8th Floor, 100 University Avenue
 Toronto, Ontario M5J 2Y1
 www.computershare.com

Security Class

Holder Account Number

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Form of Proxy - Annual General Meeting to be held on June 6, 2017

This Form of Proxy is solicited by and on behalf of Management.

Notes to proxy

1. Every holder has the right to appoint some other person or company of their choice, who need not be a holder, to attend and act on their behalf at the meeting or any adjournment or postponement thereof. If you wish to appoint a person or company other than the persons whose names are printed herein, please insert the name of your chosen proxyholder in the space provided (see reverse).
2. If the securities are registered in the name of more than one owner (for example, joint ownership, trustees, executors, etc.), then all those registered should sign this proxy. If you are voting on behalf of a corporation or another individual you must sign this proxy with signing capacity stated, and you may be required to provide documentation evidencing your power to sign this proxy.
3. This proxy should be signed in the exact manner as the name(s) appear(s) on the proxy.
4. If this proxy is not dated, it will be deemed to bear the date on which it is mailed by Management to the holder.
5. **The securities represented by this proxy will be voted as directed by the holder, however, if such a direction is not made in respect of any matter, this proxy will be voted as recommended by Management.**
6. The securities represented by this proxy will be voted in favour or withheld from voting or voted against each of the matters described herein, as applicable, in accordance with the instructions of the holder, on any ballot that may be called for and, if the holder has specified a choice with respect to any matter to be acted on, the securities will be voted accordingly.
7. This proxy confers discretionary authority in respect of amendments or variations to matters identified in the Notice of Meeting or other matters that may properly come before the meeting or any adjournment or postponement thereof.
8. This proxy should be read in conjunction with the accompanying documentation provided by Management.

Fold

Proxies submitted must be received by 10:00 am, Toronto time, on June 2, 2017.

VOTE USING THE TELEPHONE OR INTERNET 24 HOURS A DAY 7 DAYS A WEEK!

 <p>To Vote Using the Telephone</p> <ul style="list-style-type: none"> • Call the number listed BELOW from a touch tone telephone. <p>1-866-732-VOTE (8683) Toll Free</p>	 <p>To Vote Using the Internet</p> <ul style="list-style-type: none"> • Go to the following web site: www.investorvote.com • Smartphone? Scan the QR code to vote now. 	 <p>To Receive Documents Electronically</p> <ul style="list-style-type: none"> • You can enroll to receive future securityholder communications electronically by visiting www.investorcentre.com and clicking at the bottom of the page.
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If you vote by telephone or the Internet, DO NOT mail back this proxy.

Voting by mail may be the only method for securities held in the name of a corporation or securities being voted on behalf of another individual. **Voting by mail or by Internet** are the only methods by which a holder may appoint a person as proxyholder other than the Management nominees named on the reverse of this proxy. Instead of mailing this proxy, you may choose one of the two voting methods outlined above to vote this proxy.

To vote by telephone or the Internet, you will need to provide your CONTROL NUMBER listed below.

CONTROL NUMBER



Appointment of Proxyholder

I/We, being holder(s) of Aptose Biosciences Inc. hereby appoint: William G. Rice or, failing this person, Gregory K. Chow

OR

Print the name of the person you are appointing if this person is someone other than the Management Nominees listed herein.

as my/our proxyholder with full power of substitution and to attend, act and to vote for and on behalf of the shareholder in accordance with the following direction (or if no directions have been given, as the proxyholder sees fit) and all other matters that may properly come before the Annual General Meeting of shareholders of Aptose Biosciences Inc. (the "Corporation") to be held at the offices of McCarthy Tétrault LLP, Toronto Dominion Bank Tower, 66 Wellington Street West, Suite 5300, Toronto, Ontario, on June 6, 2017 at 10:00 am, Toronto time, and at any adjournment or postponement thereof.

VOTING RECOMMENDATIONS ARE INDICATED BY HIGHLIGHTED TEXT OVER THE BOXES.

1. Election of Directors

	<input type="checkbox"/> For	Withhold		<input type="checkbox"/> For	Withhold		<input type="checkbox"/> For	Withhold
01. Dr. Denis Burger	<input type="checkbox"/>	<input type="checkbox"/>	02. Dr. Erich Platzer	<input type="checkbox"/>	<input type="checkbox"/>	03. Dr. William G. Rice	<input type="checkbox"/>	<input type="checkbox"/>
04. Dr. Bradley Thompson	<input type="checkbox"/>	<input type="checkbox"/>	05. Dr. Mark D. Vincent	<input type="checkbox"/>	<input type="checkbox"/>	06. Warren Whitehead	<input type="checkbox"/>	<input type="checkbox"/>

Fold

2. Appointment of Auditor

Appointment of KPMG, LLP as auditor of the Corporation and authorizing the directors to fix its remuneration.

<input type="checkbox"/> For	Withhold
<input type="checkbox"/>	<input type="checkbox"/>

Fold

Authorized Signature(s) - This section must be completed for your instructions to be executed.

I/We authorize you to act in accordance with my/our instructions set out above. I/We hereby revoke any proxy previously given with respect to the Meeting. If no voting instructions are indicated above, this Proxy will be voted as recommended by Management.

Signature(s)

Date

DD / MM / YY

Interim Financial Statements - Mark this box if you would like to receive Interim Financial Statements and accompanying Management's Discussion and Analysis by mail.

Annual Financial Statements - Mark this box if you would NOT like to receive the Annual Financial Statements and accompanying Management's Discussion and Analysis by mail.

If you are not mailing back your proxy, you may register online to receive the above financial report(s) by mail at www.computershare.com/trackinglist.



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