

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

SCHEDULE 14A

Proxy Statement Pursuant to Section 14(a) of  
the Securities Exchange Act of 1934

Filed by the Registrant ☒

Filed by a Party other than the Registrant ☐

Check the appropriate box:

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

**Aptose Biosciences Inc.**

(Name of Registrant as Specified in its Charter)

**Not Applicable**

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

Payment of Filing Fee (Check the appropriate box):

- ☒ No fee required.
- ☐ Fee computed on table below per Exchange Act Rules 14a 6(i)(1) and 0-11.
- |       |   |
|-------|---|
| (1)   | Title of each class of securities to which transaction applies:   |
| <hr/> |   |
| (2)   | Aggregate number of securities to which transaction applies:  |
| <hr/> |   |
| (3)   | Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0 11 (Set forth the amount on which the filing fee is calculated and state how it was determined): |
| <hr/> |   |
| (4)   | Proposed maximum aggregate value of transaction:  |
| <hr/> |   |
| (5)   | Total fee paid:   |
| <hr/> |   |
- ☐ Fee paid previously with preliminary materials.
- ☐ Check box if any part of the fee is offset as provided by Exchange Act Rule 240.0 11 and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.
- |       |   |
|-------|---|
| (1)   | Amount Previously Paid:                       |
| <hr/> |   |
| (2)   | Form, Schedule or Registration Statement No.: |
| <hr/> |   |
| (3)   | Filing Party:                                 |
| <hr/> |   |
| (4)   | Date Filed:                                   |
| <hr/> |   |
-



## Notice and Proxy Statement

### For the Annual and Special Meeting of Shareholders to be held on May 31, 2022

April 19, 2022

---

Dear Fellow Shareholders,

In 2021, Aptose, a clinical-stage precision oncology company, moved closer to its goal of delivering new therapeutics for the treatment of patients with hematologic malignancies resistant and refractory to current standard of care. Despite a challenging market for biotechnology companies, we successfully executed on multiple key fronts, and our careful planning and disciplined approach to how we run our business and our clinical studies have placed us in a favorable position for 2022 and beyond.

The key event for 2021 was the culmination of a deliberate asset search begun more than two years ago that led to an exclusive worldwide license agreement with Hanmi Pharmaceutical Company to develop and commercialize HM43239, a myeloid kinase inhibitor that potently suppresses kinases operative in acute myeloid leukemia, or AML. HM43239 is a highly effective FLT3 inhibitor, inhibiting both wildtype and all other forms of FLT3 tested, and it inhibits other oncogenic signaling pathways including the downstream SYK, JAK/STAT and ERK/MAPK pathways. As a more advanced, de-risked asset with proven clinical activity, oral HM43239, or just "239" as we refer to our new lead molecule, added a well-tolerated and effective drug with significant value to our pipeline – and 239 continues to demonstrate value to patients and to impress us and our clinical investigators.

HM43239 already has delivered complete remissions in a diversity of relapsed or refractory AML patients in an ongoing international Phase 1/2 clinical trial. Importantly, 239 delivered meaningful clinical benefit to all responders, either through bridging them to a stem cell transplant, or by providing a durable remission over time. Lead investigator for the HM43239 trial, Naval Daver, MD, Associate Professor in the Department of Leukemia, MD Anderson Cancer Center, highlighted some of these results in an oral presentation at the American Society of Hematology (ASH) meeting in December. These data also allow us to identify genotypically-defined AML populations with high unmet need for potential accelerated development and to establish that 239 has strikingly broad activity across patients with diverse genotypic backgrounds. A potential minimum therapeutically effective dose already has been identified to take into expansion trials. However, because of the favorable safety profile to date, we are exploring dose expansions across a diverse set of AML patients that will allow us to identify the breadth of AML populations treatable with 239. In 2022 we look to advance 239 into an expansion clinical program covering several AML genotypes as a single agent and in combination with existing therapies.

Also during 2021, Aptose continued to dose escalate luteptinib (Lux, CG-806, our lymphoid and myeloid kinase inhibitor) in the Phase 1 a/b clinical trials in both AML and B-cell cancer patient populations. With our participation at the European Hematology Association (EHA) 2021 Virtual Congress, we presented data for both programs. We reported that in AML, the first two cohorts delivered encouraging anti-leukemic activity in multiple patients, including a heavily pretreated AML patient that experienced a durable MRD-negative complete remission (or CR). In B-cell cancers, intermediate doses had delivered clear signals of clinical activity, including tumor reductions across different B-cell malignancies. The reversal of disease growth upon intra-patient dose-escalation and longer times on drug suggested that even aggressive disease may be successfully challenged with higher exposure levels of luteptinib.

I remind you that in preclinical studies of AML, Lux triggered profound apoptosis and demonstrated *in vivo* tumor eradication. We have continued to push the dose of Lux in an effort to reach exposure levels that consistently would demonstrate this kind of activity in patients. But as we moved the original Lux formulation through the clinic – while demonstrating its clear activity – we also recognized the potential need for an improved formulation for Lux to demonstrate greater exposure and more responses.

A new, better absorbed "G3" formulation of Lux may help deliver on that promise. In preclinical studies G3 has been shown, depending on the species and the dose, to deliver from 10 to 30-fold greater exposures of drug than the original formulation. The "behind the scenes" work we have conducted appears to be leading to improvements in drug formulation and manufacturing processes, and significantly expanding our drug substance manufacturing capabilities. We have started the clinical evaluation of single doses of the G3 formulation of the drug in patients from the ongoing studies in AML and B-cell malignancies and look forward to providing you with further updates.

---

Aptose is in the fortunate position of having two well differentiated oral kinase inhibitors for the treatment of hematologic malignancies, and we will allow the clinical data, the patient needs, and the maturity of the agents to drive the paths forward.

Also during the year, even with a strong balance sheet we began a meticulous process to focus resources on value-driving programs and to streamline expenses, not by cutting corners, but by carefully evaluating the essential needs of our programs. In December, we announced the discontinuation of clinical development of APTO-253. This was

implemented strategically to extend cash runway, but without undermining company capabilities or value. Through re-prioritization of our kinome inhibitors 239 and Lux, our most actionable programs, we have extended our cash runway into the fourth quarter of 2023, which we believe goes well beyond a series of potential value building updates from our clinical programs.

I am exceptionally proud of our accomplishments during 2021 and with the position we have created for Aptose during the first part of 2022. I thank our entire Aptose organization and all of you who have participated in advancing our essential work. We are especially grateful for the patients, families and investigators who supporting our efforts to create better therapeutics. Thank you, too, to our shareholders, for your support and for being part of our journey. We look forward to reporting our progress to you throughout the year.

Sincerely,

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

---

**Aptose Biosciences Inc.**  
**Notice of 2022 Annual and Special Meeting of Shareholders**

**NOTICE IS HEREBY GIVEN** that the annual and special meeting (the “Meeting”) of shareholders of Aptose Biosciences Inc. (the “Corporation”) will be held on May 31, 2022 at 10:00 a.m. (Pacific time). The Meeting will be conducted as an online only annual and special meeting. There will be no physical location for shareholders and duly appointed proxyholders to attend. Shareholders and duly appointed proxyholders may attend the virtual Meeting online at <https://web.lumiagm.com/421602377>, where they will be able to listen, vote, and submit questions during the Meeting’s live webcast.

**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, 2021, including the auditor’s report thereon;
2. electing six directors to serve until the 2023 Annual Meeting of Shareholders;
3. appointing KPMG LLP as the independent registered public accounting firm of the Corporation for the fiscal year ending December 31, 2022;
4. passing an ordinary resolution, the full text of which is set forth in the accompanying proxy statement (the “Proxy Statement”), approving an amendment to the Corporation’s 2021 stock incentive plan to increase the number of common shares reserved for issuance thereunder by 3,000,000 common shares;
5. passing an advisory (non-binding) resolution on the compensation of the Corporation’s named executive officers, as more particularly described in the Proxy Statement; and
6. transacting such other business as may be properly brought before the Meeting.

The shareholders may also consider other business that properly comes before the Meeting or any adjournment of the Meeting. The Proxy Statement 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 18, 2022.

You have the right to vote your shares on items 2 through 5 listed above and any other items that may properly come before the Meeting or any adjournment.

The Notice of Meeting, Proxy Statement and the form of proxy will be mailed to you on or around May 2, 2022. Detailed instructions regarding shareholders’ voting process are also available on our website at <https://www.aptose.com/investors/news-events/ir-calendar>.

---

**Your vote is important**

If you are not able to attend the virtual Meeting, please exercise your right to vote by signing and returning the enclosed form of proxy to Computershare Investor Services Inc., 100 University Avenue, 8<sup>th</sup> Floor, Toronto, Canada M5J 2Y1, so as to arrive not later than 5:00 p.m. (Toronto time) on May 27, 2022 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 19, 2022

---

**IMPORTANT NOTICE REGARDING THE INTERNET AVAILABILITY OF PROXY MATERIALS FOR THE ANNUAL AND SPECIAL MEETING OF  
SHAREHOLDERS TO BE HELD ON MAY 31, 2022.**

Our Notice of 2022 Annual and Special Meeting of Shareholders, Proxy Statement and Annual Report to Shareholders are available on the Corporation's website at <https://www.aptose.com/investors/news-events/ir-calendar>.

---

**TABLE OF CONTENTS**

<b>QUESTIONS ABOUT THE ANNUAL AND SPECIAL MEETING AND VOTING YOUR SHARES</b>	<b>1</b>
<b>CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS</b>	<b>11</b>
<b>VOTING SECURITIES AND PRINCIPAL HOLDERS OF VOTING SECURITIES</b>	<b>11</b>
<b>SHARE OWNERSHIP OF CERTAIN BENEFICIAL OWNERS, MANAGEMENT AND DIRECTORS</b>	<b>12</b>
<b>RECEIPT OF FINANCIAL STATEMENTS</b>	<b>13</b>
<b>PROPOSAL NO. 1—ELECTION OF DIRECTORS</b>	<b>13</b>
Board Recommendation	17
<b>CORPORATE GOVERNANCE</b>	<b>17</b>
Board Mandate	17
Composition and Independence of the Board	18
Board Leadership	18
Board Oversight of Risk	19
Nomination of Directors	19
Diversity	21
<i>Board Diversity Matrix</i>	22
Director Term Limits and Other Mechanisms of Board Renewal	23
Position Descriptions	23
Orientation and Continuing Education	23
Assessments	23
Meeting Attendance	24
Executive Sessions	25
Ethical Business Conduct	25
Conflicts of Interest	25
Shareholder Communications with the Board	25
Board Committees	26
<b>PROPOSAL NO. 2—APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM</b>	<b>29</b>
Board Recommendation	29
<hr/>	
Audit, Audit-Related, Tax and Other Fees	29
Pre-Approval Policies and Procedures	29
Audit Committee Report	30
<b>PROPOSAL NO. 3—APPROVAL OF AMENDMENT TO THE CORPORATION'S 2021 STOCK INCENTIVE PLAN</b>	<b>31</b>
2021 Stock Incentive Plan Highlights, as proposed to be amended, and Certain Important Provisions	32
Summary of the 2021 Stock Incentive Plan	32
<i>New Plan Benefits</i>	33
U.S. Federal Income Tax Consequences	36
Canadian Federal Income Tax Consequences	37
Approval	40
Board Recommendation	41
<b>PROPOSAL NO. 4—ADVISORY (NON-BINDING) VOTE ON THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS</b>	<b>42</b>
Board Recommendation	43
<b>EXECUTIVE COMPENSATION</b>	<b>44</b>
Information About Our Executive Officers	44
Compensation Philosophy	45
Independent Advice	46
Comparator Group	46
Summary Compensation Table	51
Outstanding Equity Awards at Fiscal Year-End	52

Retirement Benefits	53
Termination and Change of Control Benefits	53
<b>DIRECTOR COMPENSATION</b>	<b>54</b>
Overview	54
Cash Compensation	54
Option Awards	54
<b>EQUITY COMPENSATION PLAN INFORMATION</b>	<b>56</b>
General	56
2021 Stock Incentive Plan	56
Share Option Plan	56
Employee Share Purchase Plan	57
ESPP Highlights	57
<hr/>	
ESPP Benefits	58
Summary of Material Provisions of the ESPP	58
Equity Compensation Plan Information	60
Securities issuable under equity compensation plans as a percentage of outstanding Shares	60
Annual Burn Rate	61
<b>INTEREST OF CERTAIN PERSONS IN MATTERS TO BE ACTED UPON</b>	<b>61</b>
<b>INTEREST OF RELATED PERSONS IN TRANSACTIONS</b>	<b>61</b>
<b>HOUSEHOLDING OF ANNUAL PROXY MATERIALS</b>	<b>62</b>
<b>INDEBTEDNESS</b>	<b>62</b>
<b>DIRECTORS AND OFFICERS' LIABILITY</b>	<b>62</b>
<b>MANAGEMENT CONTRACTS</b>	<b>62</b>
<b>ADDITIONAL INFORMATION</b>	<b>62</b>
<b>DIRECTORS' APPROVAL</b>	<b>63</b>

---

## GENERAL INFORMATION ABOUT THE PROXY STATEMENT

The information contained in this proxy statement (the "Proxy Statement") is furnished in connection with the solicitation of proxies to be used at the annual and special 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 May 31, 2022 at 10:00 a.m. (Pacific time) and at all adjournments thereof, for the purposes set forth in the accompanying notice of meeting (the "Notice of Meeting"). The Meeting will be held online at <https://web.lumiagm.com/421602377>. There will be no physical location for shareholders and duly appointed proxyholders to attend.

The information contained in this Proxy Statement is given as at April 19, 2022 except where otherwise noted. All references to "dollar" or the use of the symbol "\$" are to United States dollars and use of the symbol "CA\$" refers to Canadian dollars, unless otherwise indicated.

## QUESTIONS ABOUT THE ANNUAL AND SPECIAL MEETING AND VOTING YOUR SHARES

### *What are the date, time and place of the Meeting?*

The Meeting will be held on May 31, 2022 at 10:00 a.m. (Pacific time). The Meeting will be held online at <https://web.lumiagm.com/421602377>. There will be no physical location for shareholders and duly appointed proxyholders to attend. The meeting will be accessible 15 minutes prior to start time.

### *How can I access the Meeting virtually?*

To participate in the Meeting, visit at <https://web.lumiagm.com/421602377>. Registered Shareholders and duly appointed and registered proxyholders will be able to listen, vote and ask questions via the virtual meeting platform. It is to be noted, however, that questions cannot be submitted prior to the Meeting. Non-registered Shareholders who have not appointed themselves as proxy holders will only be able to attend the Meeting as “Guests” and will not be able to vote or ask questions at the Meeting. To access the Meeting virtually, registered Shareholders and duly appointed proxyholders will need an Internet connection and an Internet connected device (such as a desktop, laptop, tablet or cell phone) running the most updated version of applicable software and plugins. The virtual meeting platform is fully supported across browsers (Microsoft Edge, Chrome, Firefox and Safari). Participants in the Meeting must be connected to Internet at all times during the Meeting in order to vote when balloting commences. A summary of the information Shareholders will need to attend the Meeting is provided below:

1. Registered Shareholders and duly appointed proxyholders can participate in the Meeting by clicking “**I have a login**” and entering a Username and Password before the start of the Meeting.
  - a. Registered Shareholders – The 15-digit control number located on the form of proxy or in the email notification you received is the Username and the Password is “aptose2022”.
  - b. Duly appointed proxyholders – Following the registration of the proxyholder with Computershare Investor Services Inc. (“Computershare”), Computershare will provide the proxyholder with a Username after the voting deadline has passed. The Password to the Meeting is “aptose2022”.
2. Voting at the Meeting will only be available for registered Shareholders and duly appointed and registered proxyholders. Non-registered Shareholders who have not appointed themselves may attend the Meeting by clicking “**I am a guest**” and completing the online form. This will allow them listen to the Meeting; however, they will not be able to vote or submit questions.

- 
3. Registered Shareholders who use a 15-digit control number to login to the online Meeting and who accept the terms and conditions will be revoking any and all previously submitted proxies. However, in such a case, registered Shareholders will be provided the opportunity to vote by ballot on the matters put forth at the Meeting. If registered Shareholders do not wish to revoke all previously submitted proxies, they should not accept the terms and conditions, in which case they can only enter the Meeting as a guest.

If you attend the Meeting, it is important that you remain connected to the internet at all times during the Meeting in order to vote when balloting commences. It is your responsibility to ensure connectivity for the duration of the Meeting. You will be able to access the Meeting 15 minutes before the start time and should allow ample time for online check-in, which will begin at 9:45 a.m. (Pacific time) on May 31, 2022.

### *Why is the Meeting held virtually?*

By conducting our Meeting online, the Board aims to provide Shareholders a safe and convenient opportunity to participate in the Meeting without incurring significant travel costs or being restricted by time constraints.

The format of the Meeting has been designed to ensure that Shareholders who attend the Meeting online will be afforded the same rights and opportunities to participate as they have in previous annual shareholders’ meetings. Directors will also attend the Meeting via the virtual platform.

### *Can I submit questions prior or at the Meeting?*

Registered Shareholders and duly appointed and registered proxyholders can ask questions during the Meeting via the virtual meeting platform. It is to be noted, however, that questions cannot be submitted prior to the Meeting. Questions pertinent to the Meeting matters will be answered at a designated time during the Meeting, subject to time constraints. The chair of the Meeting reserves the right to edit or reject questions it deems irrelevant to meeting matters, profane or inappropriate.

The chair of the Meeting has broad authority to conduct the Meeting in an orderly manner. To ensure the Meeting is conducted in a manner that is fair to all Shareholders, the chair of the Meeting may exercise its discretion in recognizing Shareholders who wish to participate, in determining the order in which questions are answered, and the amount of time devoted to each question. However, consistent with prior annual shareholders’ meetings, questions submitted in accordance with the rules of conduct generally will be addressed in the order received during the allotted time for questions.

### *Who can vote at the Meeting?*

Only Shareholders as of the close of business on the record date, being April 18, 2022, are entitled to receive notice of and vote on matters to be presented at the Meeting, or any adjournment or postponement thereof, in the manner and subject to the procedures described in this Proxy Statement and the accompanying form of proxy.

At the close of business on the record date, 92,229,189 Shares were issued and outstanding.

Each Shareholder is entitled to one vote per Share held on all matters to come before the Meeting. Common shares of Aptose are the only securities of Aptose which will have voting rights at the Meeting.

### *What is the quorum for the Meeting?*

The presence at the opening of the Meeting of two persons who are entitled to vote either as Shareholders or as proxy holders and holding or representing not less than 33⅓% of the outstanding Shares entitled to vote at the Meeting as of the record date will constitute a quorum for the transaction of business at the Meeting. In general, Shares represented by a properly signed and returned form of proxy, or properly voted by Internet or telephone, or voted by your broker will be counted as Shares present and entitled to vote at the Meeting for purposes of determining a quorum. Shares represented by proxies marked “Abstain” and “broker non-votes” are also counted in determining whether a quorum is present.

### ***What does it mean to vote by proxy?***

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

The management representatives named on the form of proxy 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 form of proxy. 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, must receive your completed form of proxy by 5:00 p.m. (Toronto time) on May 27, 2022 or, if the Meeting is adjourned, 48 hours (excluding Saturdays, Sundays and holidays) before any adjournment of the Meeting.

### ***What’s the difference between registered and non-registered (beneficial) Shareholders?***

The voting process is different depending on whether you are a registered or non-registered (beneficial) Shareholder:

#### **Registered Shareholders**

You are a registered Shareholder if your name appears on your Share certificate or in the registers of the Corporation maintained by Computershare. Your form of proxy tells you whether you are a registered Shareholder. We mail copies of the Notice of Meeting, this Proxy Statement and the form of proxy (collectively, the “proxy materials”) directly to registered Shareholders. We have previously mailed our annual report to all registered Shareholders.

#### **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 (as 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 and SEC rules, we have distributed copies of the proxy materials and the annual report to CDS Clearing and Depository Services Inc. (“CDS”) 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 proxy materials and the annual report directly.

The intermediaries are required to forward proxy materials and the annual report 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 proxy materials to non-registered or beneficial Shareholders.

### ***How do I vote?***

Most non-registered or beneficial Shareholders who have not waived the right to receive proxy materials will receive a voting instruction form (“VIF”). Registered Shareholders will, and some non-registered (beneficial) Shareholders may receive a form of proxy. Shareholders should follow the additional procedures set out below, depending on what type of form they receive. Detailed instructions regarding shareholders’ voting process are also available on the Investors page of our website at <https://www.aptose.com/investors/news-events/ir-calendar>.

1. **Voting Instruction Form.** If the non-registered Shareholder does not wish to attend and vote at the Meeting (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, so that the intermediary may vote on the non-registered Shareholder’s behalf.

If a non-registered Shareholder wishes to attend and vote at the Meeting (or have another person attend and vote on the non-registered Shareholder’s behalf), the non-registered Shareholder must complete, sign and return the VIF in accordance with the directions provided. If the non-registered Shareholder wishes to attend and vote at the Meeting, they must appoint themselves as proxyholder. Otherwise, the non-registered Shareholder will only be able to attend the Meeting as a “Guest”, and will not be able to vote or ask questions at the Meeting. Non-registered Shareholders should visit our website at <https://www.aptose.com/investors/news-events/ir-calendar> to obtain additional instructions on how to vote online during the Meeting.

Non-registered Shareholders who wish to appoint themselves as a proxy holder in order to attend the Meeting virtually or who wish to appoint a proxyholder other than a management representative to represent them at the online Meeting must submit their VIF prior to registering themselves or their proxyholder, as applicable. Registering themselves or the proxyholder, as applicable, is an additional step once a non-registered Shareholder has submitted their VIF. Failure to register themselves or another person other than a management representative as duly appointed proxyholder will result in the non-registered Shareholder or the proxyholder not receiving a Username to participate in the Meeting. To register a proxyholder (be it themselves or another person other than a management representative), non-registered Shareholders must visit <https://www.computershare.com/aptose> by 5:00 p.m. (Toronto time) on May 27, 2022 or, if the Meeting is adjourned, 48 hours (excluding Saturdays, Sundays and holidays) before any adjournment of the Meeting, and provide Computershare with their information or their proxyholder’s contact information, as applicable, so that Computershare may provide them or the proxyholder, as applicable, with a Username via email. Without a Username, non-registered Shareholders who appointed themselves as proxyholders and proxyholders will only be able to attend the Meeting as “Guests” and will not be able to vote or ask questions at the Meeting.

**Or**

2. **Form of Proxy.** A registered Shareholder will receive a form of proxy to be completed, signed and returned in accordance with the directions on the form, if the registered Shareholder does not wish to attend and vote at the Meeting virtually (or have another person attend and vote on the registered Shareholder’s behalf).

Registered Shareholders who wish to appoint a proxyholder other than a management representative to represent them at the online Meeting must submit their form of proxy prior to registering their proxyholder. Registering the proxyholder is an additional step once a registered Shareholder has submitted their proxy. Failure to register a duly appointed proxyholder will result in the proxyholder not receiving a Username to participate in the Meeting. To register a proxyholder, registered Shareholders must visit <https://www.computershare.com/aptose> by 5:00 p.m. (Toronto time) on May 27, 2022 or, if the Meeting is adjourned, 48 hours (excluding Saturdays, Sundays and holidays) before any adjournment of the Meeting, and provide Computershare with their proxyholder’s contact information, so that Computershare may provide the proxyholder with a Username via email. Without a Username, proxyholders will only be able to attend the Meeting as “Guests” and will not be able to vote or ask questions at the Meeting.

Registered Shareholders may also attend and vote at the Meeting. Registered Shareholders should visit our website at <https://www.aptose.com/investors/news-events/ir->



calendar to obtain additional instructions on how to vote online during the Meeting. The 15-digit control number provided on the registered Shareholder's form of proxy will be required.

Less frequently, a non-registered Shareholder will receive, as part of the proxy 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 (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, 8<sup>th</sup> Floor, Toronto, Canada, M5J 2Y1 as described above.

If a non-registered Shareholder wishes to attend and vote at the Meeting (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. The non-registered Shareholder must then register themselves or the other person, as applicable, as proxyholder. Registering themselves or the other person, as applicable, is an additional step once a non-registered Shareholder has submitted their completed form of proxy. Failure to register themselves or the other person, as applicable, as duly appointed proxyholder will result in the non-registered Shareholder or the proxyholder, as applicable, not receiving a Username to participate in the Meeting. To register a proxyholder (be it themselves or another person), non-registered Shareholders must visit <https://www.computershare.com/aptose> by 5:00 p.m. (Toronto time) on May 27, 2022 or, if the Meeting is adjourned, 48 hours (excluding Saturdays, Sundays and holidays) before any adjournment of the Meeting, and provide Computershare with their information or their proxyholder's contact information, as applicable, so that Computershare may provide them or the proxyholder, as applicable, with a Username via email. Without a Username, non-registered Shareholders who appointed themselves as proxyholders and proxyholders will only be able to attend the Meeting as "Guests" and will not be able to vote or ask questions at the Meeting.

3. United States non-registered (beneficial) Shareholders. If a non-registered Shareholder in the United States wishes to attend and vote at the Meeting, they must first obtain a valid legal proxy from their broker, bank or other agent and then register in advance to attend the Meeting. The U.S. non-registered Shareholder should follow the instructions from their broker or bank included with these proxy materials, or contact their broker or bank to request a legal form of proxy. After first obtaining a valid legal proxy from their broker, bank or other agent, the U.S. non-registered Shareholder must then register to attend the Meeting by submitting a copy of their legal proxy to Computershare. Requests for registration should be directed to:

5

Computershare  
100 University Avenue  
8<sup>th</sup> Floor  
Toronto, Ontario  
M5J 2Y1

OR

Email at: [uslegalproxy@computershare.com](mailto:uslegalproxy@computershare.com)

Requests for registration must be labeled as "Legal Proxy" and be received no later than by 5:00 p.m. (Toronto time) on May 27, 2022. U.S. non-registered Shareholders will receive a confirmation of their registration by email receipt of their registration materials by Computershare. U.S. non-registered Shareholders will then be able to attend the Meeting and vote and ask questions at <https://web.lumiagm.com/421602377>. U.S. non-registered Shareholders are required to register their appointment at [www.computershare.com/appointee](http://www.computershare.com/appointee). If U.S. non-registered Shareholders do not follow the procedures set out above, they will only be able to attend the Meeting as "Guests" and will not be able to vote or ask questions at the Meeting.

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

#### ***How do I request a copy of proxy materials?***

To request a printed copy of the proxy materials, please contact your broker, if you are a non-registered Shareholder, or if you are a registered Shareholder, contact our Chairman, President and Chief Executive Officer at Aptose Biosciences Inc., Suite 120, 12770 High Bluff Drive, San Diego, California, telephone: 858-926-2730.

The proxy materials are being sent or made available to both registered and non-registered owners of Shares. The Corporation is sending proxy 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) the proxy materials.

#### ***What am I voting on at the Meeting?***

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, 2021, including the auditor's report thereon;
2. Proposal No. 1 – electing six directors to serve until the 2023 Annual Meeting of Shareholders;
3. Proposal No. 2 – appointing KPMG LLP as the independent registered public accounting firm of the Corporation for the fiscal year ending December 31, 2022;
4. Proposal No. 3 – passing an ordinary resolution approving an amendment to the Corporation's 2021 stock incentive plan to increase the number of Shares reserved for issuance thereunder by 3,000,000 Shares;

6

5. Proposal No. 4 – passing an advisory (non-binding) resolution on the compensation of the Corporation's named executive officers;
6. transacting such other business as may be properly brought before the Meeting.

As of the date of this Proxy Statement, the Board of Directors (the "Board") is not aware of any such other business.

#### ***How does the Board recommend that I vote?***

Our Board recommends that each Shareholder vote "FOR" each of Proposals No. 1 through No. 4.

#### ***What votes may I cast with regard to each proposal?***

You can choose to vote “For” or “Withhold” for Proposal No. 1, and “For”, “Against” or “Abstain”, for Proposals No. 2 through No. 4. The Shares represented by the form of proxy will be voted 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 form of proxy and do not tell us how you want to vote your Shares, your Shares will be voted in accordance with Board recommendations for each proposal by the management representatives named in the Proxy Statement.**

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 Proxy Statement, management of the Corporation knows of no such amendments, variations or other matters.

#### ***What vote is required in order to approve each proposal?***

- Proposal No. 1: Under our Majority Voting Policy, which is a “plurality-plus” voting standard, 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).
- Proposal No. 2: The appointment of KPMG LLP as our independent registered public accounting firm requires a majority of the votes cast at the Meeting, and votes cast only include those votes cast “For” or “Against” the proposal.
- Proposal No. 3: The approval of the amendment to the Corporation’s 2021 Stock Incentive Plan requires a majority of the votes cast at the Meeting, and votes cast only include those votes cast “For” or “Against” the proposal.

---

7

- Proposal No. 4: The approval of the advisory (non-binding) resolution on the compensation of the Corporation’s named executive officers requires a majority of the votes cast at the Meeting, and votes cast only include those votes cast “For” or “Against” the proposal. Abstentions and broker non-votes will not be included in the total votes cast and will not affect the results.

#### ***What impact does a “Withhold” or “Abstain” vote have?***

- Proposal No. 1: If you select “Withhold” with respect to the election of a nominee, your vote will have no effect on the votes cast for the purposes of electing such nominee but will be considered in the application of our Majority Voting Policy which is described above.
- Proposals No. 2 through 4: If you select “Abstain,” your vote will have no effect on the votes cast for the purposes of approving such proposal.

#### ***What is the effect if I do not cast my vote?***

If as a registered Shareholder you do not cast your vote at the Meeting or by proxy, no votes will be cast on your behalf on any of the proposals.

If you are a U.S. beneficial shareholder with an intermediary, you must instruct your U.S. intermediary how to vote your shares. If, as a U.S. non-registered or beneficial Shareholder, you do not instruct your intermediary on how to vote on any of the proposals at the Meeting, the intermediary has discretionary authority to vote your shares on Proposal No. 2, but the intermediary does not have discretionary authority to vote your shares on Proposal No. 1, Proposals No. 3 and No. 4 or any unusual item, so a “broker non-vote” will be recorded with respect to such item. Broker non-votes will be treated as not entitled to vote on any such matter and will not be counted as having been voted in respect of any such matter. Shares represented by such broker “non-votes” will, however, be counted in determining whether there is a quorum for the Meeting.

#### ***How do I change my vote?***

A registered Shareholder who has given a proxy may revoke that proxy and change a vote 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 at our registered office at any time before 5:00 p.m. (Toronto time) on May 30, 2022, or on the last business day before any adjournment of the Meeting at which the proxy is to be used;
- (c) using your 15-digit control number and voting online at the Meeting; or
- (d) 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 proxy 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 on a waiver of the right to receive materials and to vote that is not received by such intermediary or the Corporation, at least seven days prior to the Meeting.

---

8

#### ***What does it mean if I receive more than one set of proxy materials?***

This means that you own Shares that are registered under different accounts. For example, you may own some Shares directly as a registered Shareholder and other Shares as a non-registered beneficial Shareholder through an intermediary, or you may own Shares through more than one such organization. In these situations, you will receive multiple sets of proxy materials. It is necessary for you to complete and return all forms of proxy and VIFs in order to vote all of the Shares you own. Please make sure you return each form of proxy or VIF in the accompanying return envelope. You may also vote by Internet, telephone, facsimile or email, as applicable, by following the instructions on your proxy materials.

***How will proxies be solicited and who will pay the cost of the proxy solicitation?***

The solicitation of proxies will be primarily by mail, but Aptose's directors, officers and regular employees may also solicit proxies personally or by telephone. Aptose will bear all costs of the solicitation, including the printing, handling and mailing of the Meeting materials. Aptose has arranged for intermediaries to forward the Meeting materials to non-registered or beneficial Shareholders of record, and Aptose may reimburse the intermediaries for their reasonable fees and disbursements in that regard.

**We have engaged Morrow Sodali LLC to help us solicit proxies from shareholders for a fee of \$10,000 plus reimbursement for out-of-pocket expenses.**

***How can I make a Shareholder proposal for the 2023 Annual General Meeting of Shareholders?***

For a proposal to be valid, it must comply with the requirements of the *Canada Business Corporations Act* (the "CBCA"), as well as those of the *Securities Exchange Act of 1934* (United States) (the "Exchange Act").

In order for a Shareholder proposal to be eligible for inclusion in the proxy statement under the Exchange Act, the Shareholder must submit the proposal in accordance with Rule 14a-8, by no later than December 20, 2022, and the Shareholder must have continuously held at least US\$2,000 in market value of the Shares entitled to be voted on the proposal at the meeting, for at least three years; at least US\$15,000 in market value of the Shares entitled to vote on the proposal for at least two years; at least US\$25,000 in market value of the Shares entitled to vote on the proposal for at least one year by the date the Shareholder submits the proposal; or at least US\$2,000 of the Shares entitled to vote on the proposal for at least one year as of January 4, 2021 and continuously maintained a minimum investment of at least \$2,000 of such Shares from January 4, 2021 through the date the proposal is submitted. The Shareholder must continue to hold those Shares through the date of the meeting. A shareholder proposal submitted pursuant to the rules of the SEC under the Exchange Act must be received at our principal executive office at 251 Consumers Road, Suite 1105, Toronto, ON M2J 4R3 by December 20, 2022 and must comply with the requirements of Rule 14a-8 of the Exchange Act.

Shareholders who do not wish to use the mechanism provided by the Exchange Act may submit proposals to be considered at the 2023 annual general meeting of shareholders under the provisions of the CBCA. In order for a Shareholder proposal to be eligible under the CBCA, it must be in writing, accompanied by the requisite declarations and signed by the submitter and qualified Shareholders who at the time of signing are the registered or beneficial owners of Shares that, in the aggregate: (a) constitute at least 1% of our issued Shares that have the right to vote at general meetings; or (b) have a fair market value in excess of CA\$2,000. For the submitter or a qualified Shareholder to be eligible to sign the proposal, that Shareholder must have been the registered or beneficial owner of our Shares that carry the right to vote at general meetings for an uninterrupted period of at least six months before the date the proposal is submitted. To be considered for inclusion in the proxy materials for the 2023 annual general meeting of shareholders, any such shareholder proposal under the CBCA must be received by Aptose by no later than March 2, 2023.

9

A Shareholder wishing to nominate an individual to be a director, other than pursuant to a requisition of a meeting made pursuant to the CBCA or a Shareholder proposal made pursuant to the CBCA or Exchange Act provisions described above, is required to comply with Section 3.1 of the Advance Notice Bylaw. Section 3.1 of the Advance Notice Bylaw provides, *inter alia*, that proper written notice of any such director nomination (the "Nomination Notice") for an annual general meeting of Shareholders must be provided to the Secretary of the Corporation not less than 30 days prior to the date of the annual general meeting of Shareholders; provided, however, that in the event that the annual general meeting of Shareholders is to be held on a date that is less than 50 days after the date (the "Notice Date") on which the first public announcement of the date of the annual general meeting was made, the Nomination Notice must be provided no later than the close of business on the tenth day following the Notice Date. The foregoing is merely a summary of provisions contained in Section 3.1 of the Advance Notice Bylaw, and is not comprehensive and is qualified by the full text of such provisions. The full text of such provisions is set out in Section 3.1 of the Advance Notice Bylaw, a copy of which is filed under the Corporation's profile at [www.sedar.com](http://www.sedar.com) or [www.sec.gov](http://www.sec.gov). These advance notice provisions are in addition to, and separate from, the requirements that a stockholder must meet in order to have a proposal included in the proxy statement under the rules of the SEC and the CBCA. For such Shareholder's director nominee to be eligible for inclusion in the proxy statement, please refer to the deadlines pursuant to the Exchange Act and the CBCA set out above.

***What if amendments are made to the proposals or if other matters are brought before the Meeting?***

With respect to any amendments or variations in any of the proposals shown in the Proxy Statement, or any other matters which may properly come before the Meeting, the Shares will be voted by the appointed proxyholder as he or she in their sole discretion sees fit.

As of the date of this Proxy Statement, the Board is not aware of any such amendments, variations or other matters to come before the Meeting. However, if any such changes that are not currently known to the Board should properly come before the Meeting, the Shares represented by your proxyholders will be voted in accordance with the best judgment of the proxyholders.

***Who will tabulate the votes?***

We currently expect that Computershare will tabulate the votes, and our Corporate Secretary will be our inspector of elections for the Meeting.

***When will voting results be disclosed?***

Preliminary voting results will be announced at the Meeting. Final voting results will be filed with the Canadian provincial securities regulatory authorities on SEDAR at [www.sedar.com](http://www.sedar.com) promptly following the Meeting, and will also be published in a Current Report on Form 8-K filed with the SEC on EDGAR at <https://www.sec.gov> within four business days of the Meeting.

10

***Whom do I contact if I have questions regarding the Meeting?***

If you have any questions or require assistance in voting your Shares, please call Dr. William G. Rice, Ph.D., Chairman, President and Chief Executive Officer, at 858-926-2730.

***Who may adjourn the Meeting?***

The Meeting may be adjourned to any other time and any other place by the Shareholders who attend the Meeting or who are represented at the Meeting and entitled to vote even when such Shareholders do not constitute a quorum.

**CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This Proxy Statement contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Exchange Act, and are subject to the safe harbor created by those sections. This Proxy Statement also contains "forward-looking information" within the meaning of applicable Canadian securities laws. We refer to such forward-looking statements and forward-looking information collectively as "forward-looking statements". We have identified some

of these forward-looking statements with words like “believe,” “may,” “could,” “would,” “might,” “possible,” “potential,” “will,” “should,” “expect,” “intend,” “plan,” “predict,” “anticipate,” “estimate,” “contemplate” and “continue”, the negative of these words, other words and terms of similar meaning and the use of future dates. Forward-looking statements involve risks and uncertainties. These uncertainties include factors that affect all businesses as well as matters specific to us.

Forward-looking statements by their nature address matters that are, to different degrees, uncertain. Uncertainties and risks may cause our actual results to be materially different than those expressed in or implied by our forward-looking statements. For us, particular uncertainties and risks include those described in our filings with the Securities and Exchange Commission (the “SEC”), including our most recent Annual Report on Form 10-K for the year ended December 31, 2021. A copy of this document can be found by accessing the SEC’s EDGAR filing database at [www.sec.gov](http://www.sec.gov) and on SEDAR at [www.sedar.com](http://www.sedar.com); however we will promptly provide a copy of this document to any Shareholder of the Corporation free of charge upon request. All forward-looking statements in this Proxy Statement speak only as of the date of this Proxy Statement and are based on our current beliefs and expectations. We undertake no obligation to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise, except as otherwise required by law.

## VOTING SECURITIES AND PRINCIPAL HOLDERS OF VOTING SECURITIES

As of the record date April 18, 2022, 92,229,189 Shares are issued and outstanding. Each holder of Shares of record at the close of business on April 18, 2022 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.

### SHARE OWNERSHIP OF CERTAIN BENEFICIAL OWNERS, MANAGEMENT AND DIRECTORS

The table below sets forth information known to us regarding the beneficial ownership of our Shares as of April 19, 2022 for:

- each person the Corporation believes beneficially holds more than 5% of the outstanding shares of our Shares based solely on our review of SEC filings;

11

- each of our directors and nominees for directors;
- each of the named executive officers named in the Summary Compensation Table (we collectively refer to these persons as our “Named Executive Officers”); and
- all of our directors and executive officers as a group.

The number of Shares beneficially owned by a person includes shares subject to options held by that person that are currently exercisable or that become exercisable within 60 days of April 19, 2022. Percentage calculations assume, for each person and group, that all Shares that may be acquired by such person or group pursuant to options currently exercisable or that become exercisable within 60 days of April 19, 2022 are outstanding for the purpose of computing the percentage of Shares owned by such person or group. However, such unissued Shares described above are not deemed to be outstanding for calculating the percentage of Shares owned by any other person.

Except as otherwise indicated, the persons in the table below have sole voting and investment power with respect to all Shares shown as beneficially owned by them, subject to community property laws where applicable and subject to the information contained in the notes to the table.

Name of Beneficial Owner	Amount and Nature of Beneficial Ownership <sup>(1)</sup>	Percent of Class
<b><i>Named Executive Officers and Directors</i></b>		
Carol G. Ashe	188,750	*
Dr. Rafael Bejar	581,503	*
Dr. Denis Burger	367,672	*
Gregory K. Chow	2,416,848 <sup>(2)</sup>	2.62%
Caroline Loewy	188,750	*
Dr. Jotin Marango	1,021,055	1.11%
Dr. Erich Platzer	816,250	*
Dr. William G. Rice	3,853,384	4.18%
Mark D. Vincent	347,750	*
Warren Whitehead	311,875	*
All Executive Officers and Directors as a Group (ten persons)	10,093,837	10.94%
<b><i>Beneficial Owners of More Than 5%</i></b>		
Nantahala Capital Management, LLC <sup>(3)</sup>	7,604,693	8.25%
DRW Holdings, LLC <sup>(4)</sup>	8,892,437	9.64%
*Does not exceed one percent of common shares outstanding		
(1) Includes for the persons listed below the following Shares subject to options held by such persons that are currently exercisable or become exercisable within 60 days of April 19, 2022: Ms. Carol G. Ashe: 188,750; Dr. Rafael Bejar: 571,503; Dr. Denis Burger: 346,001; Mr. Gregory K. Chow: 2,184,002; Ms. Caroline Loewy: 188,750; Dr. Jotin Marango: 904,836; Dr. Erich Platzer: 311,250; Dr. William G. Rice: 3,510,132; Dr. Mark Vincent: 341,250; and Mr. Warren Whitehead: 296,875.		
(2) According to latest publicly available information.		

12

(3)Based on information contained in a schedule 13G filed with the SEC on February 14, 2022 by Nantahala Capital Management, LLC, Wilmot B. Harkey and Daniel Mack, 130 Main St. 2<sup>nd</sup> Floor, New Canaan, CT, 06840, United States of America. The filing indicates that, as of December 31, 2021, Nantahala Capital Management, LLC may be deemed to be the beneficial of 7,604,693 shares held by funds and separately managed accounts under its control, and as the managing members of Nantahala Capital Management, LLC, each of Wilmot B. Harkey and Daniel Mack may be deemed to be a beneficial owner of those shares.

- (4) Based on information contained in a schedule 13G filed with the SEC on August 3, 2021 by DRW Investments, LLC, DRW Commodities, LLC, DRW Securities, LLC, DRW Holdings, LLC, Donald R. Wilson, Jr., 540 West Madison Street, Suite 2500, Chicago, Illinois 60661, United States of America. The filing indicates that, as of August 3, 2021, each of DRW Holdings, LLC and Donald R. Wilson, Jr. could be deemed to beneficially own the 8,888,275 shares beneficially owned by DRW Investments, LLC and the 4,162 shares beneficially owned by DRW Commodities, LLC.

## RECEIPT OF FINANCIAL STATEMENTS

At the Meeting, Shareholders will receive and consider the financial statements of the Corporation for the fiscal year ended December 31, 2021 and the auditor's report thereon, but no vote by the Shareholders with respect thereto is required or proposed to be taken.

## PROPOSAL NO. 1—ELECTION OF DIRECTORS

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 Board is authorized to determine the actual number of directors to be elected from time to time. The Corporation currently has seven directors, six whom are being proposed for nomination at the Meeting. 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.

Ms. Caroline Loewy, who was first appointed to the board of directors on April 25, 2018, is not standing for re-election at the meeting.

On February 24, 2014, the Board adopted a majority voting policy (the "Majority Voting Policy", also known as a "plurality-plus" standard). 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 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 incumbent directors of the Corporation are nominated for election at the Meeting.

Director	Experience and Qualifications
Carol G. Ashe <sup>(2)(3)</sup> Pennsylvania, United States Director Since August 2018	Ms. Ashe, age 64, has been the Chief Business Officer at the New York Genome Center, an independent, non-profit academic research institution focused on furthering genomic research that leads to scientific advances and new insights and therapies for patients with neurodegenerative disease, neuropsychiatric disease, and cancer, since 2014. Previously, she served as Vice President of Corporate Development for Endo Pharmaceutical's branded, generic and platform drug delivery pharmaceutical business units from 2011 to 2013; a Partner at SR One, the corporate venture capital fund of GlaxoSmithKline ("GSK"), from 2008 to 2010; and head of GSK's US Corporate Legal Group supporting US-based mergers, acquisitions and equity investments from 2007 to 2008. Prior to that, Ms. Ashe led GSK's global Business Development Transactions Legal Team supporting both the pharmaceutical and consumer healthcare business units from 1995 to 2007. In 2020, Ms. Ashe joined the Board of Elicio Therapeutics, a privately held next generation immunotherapy company, as an independent director. Ms. Ashe received her BS degree in Biology from Pennsylvania State University, her law degree from Villanova University School of Law and is a registered patent attorney.
	Ms. Ashe makes valuable contributions to the Board based on over 25 years of experience in the pharmaceutical and biotechnology industry in business development and as legal counsel for business development transactions and patent matters.

Director	Experience and Qualifications
Dr. Denis Burger <sup>(1)(2)(4)</sup> Oregon, United States Director Since 2007	Dr. Burger, age 78, currently is a partner in Sovereign Ventures LLC, a healthcare consulting and funding firm based in Portland, Oregon since 1985. Previously, he co-founded Trinity Biotech, PLC, a diagnostic biotechnology company based in Dublin, Ireland, where he was Chairman from 1992 to 1995 and served on its board of directors until 2020. Dr. Burger served as the Chairman, Chief Executive Officer and a Director of AVI Biopharma Inc., an Oregon-based biotechnology company, from 1996 to 2007. Dr. Burger has also been the managing member of Paradigm Ventures LLC, a healthcare consulting and funding firm based in Portland, Oregon, from 1990 to present. He was a co-founder and Chairman of Epitope Inc. from 1981 to 1990. Dr. Burger was Vice Chairman and Chief Scientific Officer of CytoDyn Inc. from 2014 to 2018. Dr. Burger has served as President of Yamhill Valley Vineyards since 1983. In addition, Dr. Burger previously held a professorship in the Department of Microbiology and Immunology and Surgery (Surgical Oncology) at the Oregon Health Sciences University in Portland. Dr. Burger received his M.Sc. and Ph.D. in Microbiology and Immunology from the University of Arizona.
	Dr. Burger served on the board of directors of Trinity Biotech, PLC. (1992 to 2020)*, CytoDyn Inc. (2014 to 2018)* and AVI Biopharma Inc (1996-2007)*.
	Dr. Burger makes valuable contributions to the Board based on his Ph.D. in microbiology and immunology, and his more than 25 years of experience in the biotechnology industry as a senior executive and as a corporate director.

Dr. Erich Platzer<sup>(2)</sup>  
Basel, Switzerland

Director Since 2014

Dr. Platzer, age 71, served as a board certified physician in internal medicine, hematology and medical oncology between 1979 and 1991. In 2001, Dr. Platzer co-founded HBM Healthcare Investments (formerly HBM BioVentures), a global leader in healthcare investing and served as their investment advisor until 2015. Previously, he served as the business director of oncology, as well as the global strategic marketing and therapeutic area head of oncology at Roche, Basel. He also served in various other leadership roles at Roche and was responsible for various strategic corporate partnerships. 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 of the University of Erlangen, where he also received his “Dr. med. habil.” (M.D., Ph.D.).

Dr. Platzer has served as a pharmaceutical industry expert on the board of directors of multiple biotech companies in both the U.S. and Europe. Currently he serves as chairman of Vivoryon Therapeutics NV, AOT, and Léman Micro Devices, as well as a board member of Peripal and as a director and industry partner of MedTech Innovation Partners, MTIP, a Swiss VC firm focusing on MedTech and eHealth. He has also served as the president of Swiss business angel group StartAngels since 2015.

Dr. Platzer makes valuable contributions to the Board based on over twenty-five years’ experience in the biotechnology industry as a physician in hematology and medical oncology, as a corporate executive, and as a corporate director.

14

Director	Experience and Qualifications
Dr. William G. Rice California, United States  Director Since 2013	<p>Dr. Rice, age 63, 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 from 2003 to 2013. Prior to Cylene, Dr. Rice was the founder, President, Chief Executive Officer and Director of Achillion Pharmaceuticals, Inc. from 1998 to 2003. He also served as Senior Scientist and Head of the Drug Mechanism Laboratory at the National Cancer Institute-Frederick Cancer Research and Development Center from 1992 to 1998, and served as a faculty member in the division of Pediatric Hematology and Oncology at Emory University School of Medicine from 1989 to 1992. Dr. Rice received his Ph.D. from Emory University Department of Biochemistry.</p> <p>Dr. Rice continues to serve as the Chairman of the board of Cylene and was previously a member of the board of directors of Oncolytics Biotech Inc. (2015 to 2021)*.</p> <p>Dr. Rice makes valuable contributions to the Board based on his Ph.D. in Biochemistry, and his over 25 years of experience in the biotechnology industry as a senior executive and as a corporate director.</p>
Dr. Mark D. Vincent <sup>(3)</sup> Ontario, Canada  Director Since 2007	<p>Dr. Vincent, age 69, has been a Professor of Oncology at the University of Western Ontario since 2008 and a staff medical oncologist at the London Regional Cancer Program since 1990. Dr. Vincent has also served as the co-founder and Chief Executive Officer of Sarissa, Inc., a private company actively involved in the development of compounds which potentiate existing, approved targeted drugs including agents approved in leukemia, since 2000. Dr. Vincent holds multiple patents on the potentiation of cancer chemotherapy by the manipulation of drug resistance genes, sits on the advisory boards and speakers panels of several major pharmaceutical companies, and is a frequent international lecturer on the positioning of new drugs in the complex evolving management of lung and gastro-intestinal cancer. Dr. Vincent completed his oncology training at the Royal Marsden Hospital in London, England, with a major focus on leukemia/lymphoma.</p> <p>Dr. Vincent makes valuable contributions to the Board based on over 25 years of experience as a medical oncologist.</p>

15

Director	Experience and Qualifications
Warren Whitehead <sup>(1)</sup> Ontario, Canada Director Since 2011	<p>Mr. Whitehead, age 69, serves as the Chief Financial Officer of Satellos Bioscience Inc. (“Satellos”), a TSXV-listed regenerative medicine company aimed at developing therapeutics for degenerative muscle diseases, since August 2021. He previously served as the Chief Financial Officer of ProMIS Neurosciences Inc. (formerly Amorfis Life Sciences Ltd.), a TSX-listed company targeting detection and effective treatment of Alzheimer’s disease and amyotrophic lateral sclerosis, from 2013 to 2015, after which he concentrated on his role on corporate boards until he joined Satellos in 2021. From 2006 to 2008, he was the Chief Financial Officer of Arius Research Inc., a TSX-listed company developing anti-cancer antibodies, where he provided financial guidance and leadership during the acquisition of Arius by Roche in 2008. He was also the former Chief Financial Officer of Labopharm Inc. from 2000 to 2006, where he completed a series of public equity financings, including a cross-border Nasdaq offering. Other positions include Chief Financial Officer of Resolution Pharmaceuticals Inc., and a position in finance and business development at Glaxo Canada (now GlaxoSmithKline). Mr. Whitehead holds an MBA, and BComm from the University of Windsor and a BA from the University of Western Ontario.</p> <p>Mr. Whitehead was the former Chairman and board member of Plantform Corporation until 2019 and a former Board Member of Telesta Therapeutics (TSX), which was acquired by Prometic Life Sciences in 2016.</p> <p>Mr. Whitehead makes valuable contributions to the Board based on his financial expertise as a Chartered Professional Accountant (CPA) and a Certified Management Accountant (CMA) who has held chief financial officer roles at publicly traded pharmaceutical and biotechnology firms.</p>

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.
- \* SEC reporting issuer

No proposed director is, to the knowledge of the Corporation as at the date of the Proxy Statement, or has been, within 10 years before the date of this Proxy Statement, 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 compromise 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.

## Board Recommendation

**The Board recommends a vote FOR the election of all nominees for directors named in this Proxy Statement.**

## CORPORATE GOVERNANCE

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:

- a Board elected annually by a Majority Voting Policy, with an established written mandate;
- standing committees composed entirely of independent directors;
- an independent Lead Director;
- annual assessments of the Board, each committee and individual directors;
- established a written Disclosure and Insider Trading Policy; and
- established a written Code of Ethics.

Each of the committee charters and the Code of Ethics can be found on the Corporation's website at <https://ir.aptose.com/corporate-governance>.

**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 National Instrument 52-110 – *Audit Committees* ("NI 52-110"), which has been adopted in various Canadian provinces and territories and which prescribes certain requirements in relation to audit committees.**

## 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 A.

## Composition and Independence of the Board

The Corporation's Board is currently composed of seven directors, a majority (six) of whom meet the independence standards under the listing standards of Nasdaq and NI 52-110. Each year the Board reviews the composition of the Board and assesses whether a Board member is "independent".

Director	Independence
Carol Ashe	Yes
Denis Burger	Yes
Caroline Loewy	Yes
Erich Platzer	Yes
William G. Rice	No
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 where our directors serve on the board:

Director	Reporting Issuer
Caroline M. Loewy	CymaBay Therapeutics Inc. PhaseBio Pharmaceuticals Inc. Phoenix Biotech Acquisition Corp. Zogenix, Inc.
Erich Platzer	Vivoryon Therapeutics NV

## Board Leadership

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.

## **Board Oversight of Risk**

With regard to risk management, the Board will ensure that the business of the Corporation is conducted in compliance with applicable laws and regulations and according to the highest ethical standards; will 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 will adopt a disclosure policy.

The Board as a whole has responsibility for risk oversight, with more in-depth reviews of certain areas of risk being conducted by the relevant Board committees that report on their deliberations to the full Board. The Board and its committees fulfill their oversight responsibilities with the support of management, whose reporting processes are designed to provide information to the Board about the identification, assessment and management of critical risks and management's risk mitigation strategies. Areas of risk evaluated include regulatory, operational, financial (accounting, liquidity and tax), legal, cybersecurity compensation, competitive, health, safety and reputational risks.

The standing committees of the Board oversee risks associated with their respective principal areas of focus. The Audit Committee's role includes a particular focus on the qualitative aspects of financial reporting to stockholders, on our processes for the management of business and financial risk, our financial reporting obligations and for compliance with significant applicable legal, ethical and regulatory requirements. The Audit Committee, along with management, is also responsible for developing and participating in a process for review of important financial and operating topics that present potential significant risk to the Corporation. The Compensation Committee is responsible for overseeing risks and exposures associated with our compensation programs and arrangements, including our executive and director compensation programs and arrangements, and management succession planning. The Governance and Nominating Committee oversees risks relating to our corporate governance matters and policies and director succession planning.

We recognize that a fundamental part of risk management is understanding not only the risks a company faces and what steps management is taking to manage those risks, but also understanding what level of risk is appropriate for that company. Through their involvement in setting our business strategy, the Board can assess management's appetite for risk and also determine what constitutes an appropriate level of risk for the Corporation.

We believe our current Board leadership structure is appropriate and helps ensure proper risk oversight for the Corporation. The full Board conducts general risk oversight in connection with its role in reviewing our key long-term and short-term business strategies and monitoring on an ongoing basis the implementation of our key business strategies, while our standing Board committees conduct more specific risk oversight related to their responsibilities. The Chair ensures that there is sufficient time on the Board agenda for risk management discussions.

## **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.

It is the Corporate Governance and Nominating Committee's policy to consider director candidates recommended by our Shareholders in accordance with the provisions set forth in our Advance Notice By-Law, which may be accessed on our website at [www.aptose.com](http://www.aptose.com) in the Investors section. Candidates recommended by the Corporation's Shareholders will be considered by the Corporate Governance and Nominating Committee and, as stated in the Corporate Governance and Nominating Committee Charter, such candidates shall be evaluated in the same manner as all other director candidates. During 2021, we received no recommendations of director candidates from our Shareholders.

Shareholders who wish to suggest a candidate for our Board may submit a written recommendation to our Secretary at 251 Consumers Road, Suite 1105, Toronto, ON M2J 4R3 along with the Shareholder's name, setting forth, among other things:

- the name, age, and province or state, and country of residence of the proposed nominee;
- the principal occupation, business or employment of the proposed nominee, both at present and within the five years preceding the recommendation;
- the number of securities of each class of voting securities of the Corporation or its subsidiaries which are beneficially owned, or controlled or directed, directly or indirectly, by the proposed nominee as of the record date for the meeting of Shareholders (if such date shall then have been made publicly available and shall have occurred) and as of the date of such notice;
- a description of any agreement, arrangement or understanding (financial, compensation or indemnity related or otherwise) between the nominating Shareholder and the proposed nominee, or any affiliates or associates of, or any person acting jointly or in concert with the nominating Shareholder or the proposed nominee, in connection with the proposed nominee's election as director; and
- whether the proposed nominee is party to any existing or proposed relationship, agreement, arrangement or understanding with any competitor of the Corporation or its affiliates or any other third party which may give rise to a real or perceived conflict of interest between the interests of the Corporation and the interests of the proposed nominee.

The Corporate Governance and Nominating Committee may also request that the Shareholder provide certain additional information.

For the Board to consider a candidate for nomination at the 2023 Annual Meeting, Shareholders should submit the required information to the Secretary by the date not less than 30 days before the 2023 Annual Meeting; provided, however, that if the 2023 Annual Meeting is to be held on a date that is fewer than 50 days after the date (the "Notice Date") on which the first public announcement of the meeting was made, notice by the nominating Shareholder may be given not later than the close of business on the tenth day following the Notice Date. These advance notice provisions are in addition to, and separate from, the requirements that a stockholder must meet in order for such Shareholder's director nominee to be eligible for inclusion in the proxy statement. Under the rules of the SEC and for such inclusion, such nomination must be received by our



To comply with the universal proxy rules (once effective), stockholders who intend to solicit proxies in support of director nominees other than the Company’s nominees must provide notice that sets forth the information required by Rule 14a-19 under the Securities Exchange Act of 1934 no later than April 1, 2023.

## Diversity

The Corporate Governance and Nominating Committee takes diversity, including diversity of experience, perspective and education, as well as individuals from other designated groups such as women, Aboriginal people, persons with disabilities and members of visible minorities (collectively, the “**Designated Groups**”), 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 or other members of the Designated Groups 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 diversity, including 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 values diversity of experience, perspective, education and race, and considers the representation of women and other members of the Designated Groups, as part of its overall annual evaluation of director nominees for election or re-election as well as candidates for management positions.

In addition, in searches for new directors or officers, the Corporate Governance and Nominating Committee will consider the level of representation of women and other members of the Designated Groups 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 representation of women and other members of the Designated Groups on the Board and in management positions and, where appropriate, recruiting qualified candidates who are members of the Designated Groups 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.

The Board has not adopted targets regarding the representation of women and other members of Designated Groups 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 or race, 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. We are actively seeking additional candidates to join our Board and we strongly prioritize diverse candidates.

Currently, two out of seven (29%) members of the Board and none of the executive officers are women. One executive officer identifies as being of “Hispanic, Latinx or Spanish origin” and there are otherwise no members of the Board or executive officers of the Corporation who self-identify as being part of any of the Designated Groups.

## Board Diversity Matrix

The table below provides certain highlights of the composition of our Board members as of December 31, 2021. Each of the categories listed in the table below has the meaning as it is used in Nasdaq Rule 5605(f).

Total Number of Directors	7			
	Female	Male	Non-Binary	Did Not Disclose Gender
<b>Part I: Gender Identity</b>				
Directors	2	5	-	-
<b>Part II: Demographic Background</b>				
African American or Black	-	-	-	-
Alaskan Native or Native American	-	-	-	-
Asian	-	-	-	-
Hispanic or Latinx	-	-	-	-
Native Hawaiian or Pacific Islander	-	-	-	-
White	2	5	-	-
Two or More Races or Ethnicities	-	-	-	-
LGBTQ+	-			
Did Not Disclose Demographic Background	-			

## 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.

## 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.

## 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.

## Meeting Attendance

As stated in the Board Mandate, all directors are expected to attend each meeting in person, by phone or by video conference depending on the format of the meeting, to the extent practicable. The Board of Directors and its committees held 22 meetings during 2021. More specifically, the Audit Committee met four times, the Corporate Governance and Nominating Committee met six times and the Compensation Committee met five times, in each case with all members in attendance, in addition to the seven meetings of the Board. Every director attended all meetings of the Board and all committees on which they served during our fiscal 2021.

23

The following table illustrates the attendance record of each director for all Board meetings held for the year ended December 31, 2021.

Director	Meetings Attended			
	Audit Committee	Corporate Governance and Nominating Committee	Compensation Committee	Board
Carol G. Ashe	-	6 of 6	5 of 5	7 of 7
Denis Burger	4 of 4	-	5 of 5	7 of 7
Caroline M. Loewy	4 of 4	6 of 6	-	7 of 7
Erich Platzer	-	-	5 of 5	7 of 7
William G. Rice	-	-	-	7 of 7
Mark Vincent	-	6 of 6	-	7 of 7
Warren Whitehead	4 of 4	-	-	7 of 7

All director nominees are expected to attend the annual and special meeting. All the current directors attended last year's Annual Meeting of Shareholders.

## Executive Sessions

The independent directors meet regularly without the presence of non-independent directors and members of management. During the year ended December 31, 2021, independent directors met six times without the presence of management non-independent directors as part of meetings of the Board, and members of the Audit Committee, Corporate Governance and Nominating Committee and Compensation Committee met two, six and five times, respectively, without the presence of management as part of meetings of their committees.

## Ethical Business Conduct

We have adopted a code of ethics for directors, officers (including our principal executive officer, principal financial officer and principal accounting officer) and employees, known as the Code of Business Conduct and Ethics. The Code of Business Conduct and Ethics is available on our website at <http://www.aptose.com> under the Corporate Governance section of our Investors page. We will promptly disclose on our website (i) the nature of any amendment to the policy that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions and (ii) the nature of any waiver, including an implicit waiver, from a provision of the policy that is granted to one of these specified individuals that is required to be disclosed pursuant to SEC rules and regulations, the name of such person who is granted the waiver and the date of the waiver.

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 by accessing the SEC's EDGAR filing database at [www.sec.gov](http://www.sec.gov), on SEDAR at [www.sedar.com](http://www.sedar.com) and on our website at [www.aptose.com](http://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, in addition to providing guidelines on employee trading in the Corporation's securities.

The Board has not granted any waiver of the Code in favor 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.

24

## 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.

## Shareholder Communications with the Board

Shareholders may communicate with the Board or any one particular director by sending correspondence, addressed to Dr. William G. Rice, Ph.D., Chairman, President and Chief Executive Officer, 12770 High Bluff Drive, San Diego, California, 92130, with an instruction to forward the communication to the Board or one or more particular directors. He will forward promptly all such shareholder communications to the Board, or the one or more particular directors, after ascertaining whether the communications are appropriate to duties and responsibilities of the Board.

## Board Committees

The Corporation has a standing Audit Committee, a Corporate Governance and Nominating Committee and a Compensation Committee, each of which are composed entirely of independent directors.

### *Audit Committee*

Membership. The current members of the Audit Committee are Caroline Loewy, Denis Burger and Warren Whitehead. Mr. Whitehead is the Chair of the Audit Committee. The Board has determined that all members of the Committee qualify as financial experts under the listing standards of Nasdaq.

In addition, each current member of the Audit Committee qualifies as “independent” for purposes of membership on audit committees under the listing standards of Nasdaq, the rules and regulations of the SEC and NI 52-110.

Meetings. The Audit Committee met four times during the period from January 1, 2021 until December 31, 2021.

Committee Mandate. Among its responsibilities, the Audit Committee:

- serves as an independent and objective party to monitor the integrity of our financial reporting process and systems of internal controls regarding finance, accounting, and legal compliance, including the review of our consolidated financial statements, MD&A and annual and interim results;
- identifies and monitors the management of the principal risks that could impact our financial reporting;
- monitors the independence and performance of our independent auditors, including the pre-approval of all audit fees and all permitted non-audit services in accordance with federal securities laws and the rules and regulations of the SEC;

---

25

- provides an avenue of communication among the independent auditors, management, and the Board; and
- encourages continuous improvement of, and foster adherence to, our policies, procedures and practices at all levels.

The Audit Committee is also responsible for implementing and overseeing our whistle-blowing procedures.

### *Corporate Governance and Nominating Committee*

Membership. The current members of the Corporate Governance and Nominating Committee are Mark Vincent, Carol Ashe and Caroline Loewy. Dr. Vincent is the Chair of the Committee. Each current member of the Committee qualifies as “independent” under the listing standards of Nasdaq, the rules and regulations of the SEC and NI 52-110.

Meetings. The Corporate Governance and Nominating Committee met six times during the period from January 1, 2021 until December 31, 2021. In addition, governance matters were discussed and considered at the Board level.

Committee Mandate. Among its responsibilities, the Corporate Governance and Nominating Committee:

- identifies qualified individuals to become Board members, consistent with criteria approved by the Board;
- determines the composition of the Board and its committees;
- selects the director nominees for the next annual meeting of shareholders;
- monitors a process to assess Board, committee and management effectiveness;
- aids and monitors management succession planning; and
- develops, recommends to the Board, implements and monitors policies and processes related to the Corporation’s corporate governance guidelines

### *Compensation Committee*

Membership. The Compensation Committee is currently comprised of Board members Dr. Burger, Dr. Platzer and Ms. Ashe. Dr. Burger is the Chair of the Compensation Committee. Each current member of the Compensation Committee qualifies as “independent” for purposes of membership on compensation committees under the listing standards of Nasdaq, the rules and regulations of the SEC and NI 52-110, and as a “non-employee director” within the meaning of Rule 16b-3 under the Exchange Act.

Meetings. The Compensation Committee met five times during the period from January 1, 2021 until December 31, 2021. In addition, compensation matters were discussed and considered at the Board level.

---

26

Committee Mandate. Among its responsibilities, the Compensation Committee:

- reviews and makes 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;
- evaluates the performance of the Chief Executive Officer and other senior executive officers;
- makes recommendations to the Board with respect to the compensation policies for the non-employee directors;
- 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.

As part of its process to make recommendations to the Board with respect of the compensation for the non-employee directors and other employees of the Corporation, the Compensation Committee consults with the President and Chief Executive Officer and other officers of the Corporation to obtain recommendations as it deems necessary.

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

## PROPOSAL NO. 2—APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board, on the Audit Committee’s advice, recommends the appointment of KPMG LLP, as the independent registered public accounting firm of the Corporation for the fiscal year ending December 31, 2022.

We are asking shareholders to approve the appointment of KPMG for the fiscal year ending December 31, 2022. If shareholders do not approve the appointment of KPMG LLP, the Audit Committee will reconsider its selection, but it retains sole responsibility for appointing and terminating our independent registered public accounting firm.

Representatives of KPMG LLP will be present at the Meeting.

### Board Recommendation

**The Board unanimously recommends a vote FOR the appointment of KPMG LLP as the independent registered public accounting firm of the Corporation for the fiscal year ending on December 31, 2022.**

### Audit, Audit-Related, Tax and Other Fees

The tables below present fees for professional services rendered by KPMG LLP for the fiscal years ended December 31, 2021 and 2020, respectively.

	Aggregate Amount Billed <sup>(3)</sup>	
	2021	2020
Audit Fees <sup>(1)</sup>	\$ 269,056	\$ 240,898
Tax Fees <sup>(2)</sup>	35,435	38,148
<b>Total</b>	<b>\$ 304,491</b>	<b>\$ 279,046</b>

- (1) Audit fees consisted of the audit of our annual financial statements for the fiscal years ended December 31, 2020 and 2021, respectively, and interim reviews. In addition, audit fees consist of the aggregate fees billed for assurance and related services that are reasonably related to the performance of the audit or review of the issuer’s financial and include the provision of comfort letters and consents and the review of documents filed with regulatory authorities.
- (2) Tax fees include fees billed for assistance in the preparation of corporate tax returns and related filings and general tax advisory services.
- (3) All fees by KPMG are invoiced and paid in Canadian dollars. Fees for 2021 have been translated to US dollars at the Bank of Canada average annual exchange rate of 0.7980 and 2020 have been translated to US dollars at the Bank of Canada average annual exchange rate of 0.7454.

### Pre-Approval Policies and Procedures

The Audit Committee has adopted procedures pursuant to which all audit, audit-related and tax services, and all permissible non-audit services provided by our independent registered public accounting firm must be pre-approved by the Audit Committee. All services rendered by KPMG LLP during our fiscal year 2021 were permissible under applicable laws and regulations and were all approved in advance by the Audit Committee in accordance with the rules adopted by the SEC in order to implement requirements of the Sarbanes-Oxley Act of 2002.

### Audit Committee Report

This report is furnished by the Audit Committee of the Board with respect to our financial statements for the year ended December 31, 2021.

One of the purposes of the Audit Committee is to oversee our accounting and financial reporting processes and the audit of our annual financial statements. Our management is responsible for the preparation and presentation of complete and accurate financial statements. Our independent registered public accounting firm, KPMG LLP, is responsible for performing an independent audit of our financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States) and for issuing a report on their audit.

In performing its oversight role, the Audit Committee has reviewed and discussed our audited financial statements for the year ended December 31, 2021 with our management. Management represented to the Audit Committee that our financial statements were prepared in accordance with generally accepted accounting principles. The Audit Committee has discussed with KPMG LLP, our independent registered public accounting firm, the matters required to be discussed by the applicable requirements of the Public Company Accounting Oversight Board and the Securities Exchange Commission. The Audit Committee has received the written disclosures and the letter from KPMG LLP required by the applicable requirements of the Public Company Accounting Oversight Board regarding communications with audit committees concerning independence. The Audit Committee has discussed with KPMG LLP its independence and concluded that the independent registered public accounting firm is independent from our company and our management.

Based on the review and discussions of the Audit Committee described above, the Audit Committee recommended to the Board that our audited financial statements for the year ended December 31, 2021 be included in our Annual Report on Form 10-K for the year ended December 31, 2021 for filing with the Securities and Exchange Commission.

*Audit Committee*  
Warren Whitehead, Chair  
Denis Burger  
Caroline Loewy

### PROPOSAL NO. 3—APPROVAL OF AMENDMENT TO THE CORPORATION'S 2021 STOCK INCENTIVE PLAN

At the Meeting, Shareholders will be asked to approve an ordinary resolution (the "Amendment Resolution") approving an amendment to the Corporation's 2021 stock incentive plan (the "2021 Stock Incentive Plan") to increase the number of Shares reserved thereunder by 3,000,000 Shares. All other provisions of the 2021 Stock Incentive Plan remain in full force and effect. A copy of the 2021 Stock Incentive Plan, as proposed to be amended, is attached hereto as APPENDIX B.

The Board believes that our success depends, in large part, in attracting and retaining employees, officers, consultants, advisors, independent contractors and non-employee directors capable of assuring the future success of the Corporation. Accordingly, the purpose of the 2021 Stock Incentive Plan is to offer such persons incentives to put forth maximum efforts for the success of the Corporation's business and to compensate such persons through stock-based awards in the form of stock options, stock appreciation rights ("SARs"), restricted stock, restricted stock units ("RSUs") or dividend equivalents (collectively, "Awards"), and provide them with opportunities for stock ownership in the Corporation, thereby aligning their interests with the Shareholders'. The 2021 Stock Incentive Plan is the only omnibus equity incentive plan under which the Corporation may grant equity awards.

As of April 19, 2022, there were 19,038,756 Shares subject to issuance upon exercise of outstanding options under all of our equity compensation plans, at a weighted average exercise price of \$3.89, and a weighted average remaining life of 7.13 years. There were no issued and outstanding RSUs and stock units.

The Board believes that the number of Shares currently remaining available for issuance pursuant to future Awards is not sufficient for future granting needs. In addition, the Compensation Committee has considered our historical annual burn rate in granting Awards and believes that our burn rate is reasonable for a clinical-stage biotechnology company that is prudently planning for success, see "Annual Burn Rate". Accordingly, on April 19, 2022, the Board unanimously approved, subject to the approval of the Shareholders, an amendment to the 2021 Stock Incentive Plan to Increase the number of Shares reserved thereunder by 3,000,000 Shares (the "Amendment"). We expect that the proposed Share pool under the 2021 Stock Incentive Plan will allow us to continue to grant equity awards at our historic rates. Future circumstances may require us to change our current equity grant practices, the future price of our Shares, our future sales of equity securities, or future human capital management needs with any degree of certainty at this time, and the Share reserve under the 2021 Stock Incentive Plan, as amended, could last for a shorter or longer time.

If Shareholders approve the Amendment, subject to equitable adjustment in the event of any change in capitalization, Awards may be made under the 2021 Stock Incentive Plan for up to the sum of 9,343,242 Shares, plus the number of Shares subject to awards outstanding under such the Corporation's share option plan (the "Prior Awards") that are not purchased or are forfeited, paid in cash or reacquired by the Corporation, or otherwise not delivered to the participant due to termination or cancellation of such Prior Award.

The Shares available for grant, if the Amendment is approved, would facilitate our ability to continue to grant equity incentives, which is vital to our ability to fully engage, attract and retain the highly skilled individuals which are so valuable to our business. We strongly believe that the approval of the Amendment is instrumental to our continued success.

#### 2021 Stock Incentive Plan Highlights, as proposed to be amended, and Certain Important Provisions

- *Overall Share Limit.* The total number of Shares reserved under the 2021 Stock Incentive Plan is 9,343,242 Shares, which represents an increase of 3,000,000 Shares in the number of Shares reserved for issuance thereunder, subject to equitable adjustment in the event of any change in capitalization. As of April 18, 2022, the closing price of a Share on Nasdaq was \$1.20.
- *Outstanding Awards under Incentive Plans.* As of April 19, 2022, there were 19,038,756 shares subject to issuance upon exercise of outstanding options under all of our equity compensation plans, at a weighted average exercise price of \$3.89, and a weighted average remaining life of 7.13 years. There were no issued and outstanding restricted shares and restricted stock units that remain outstanding.
- *No Liberal Recycling Provisions.* The 2021 Stock Incentive Plan provides that the following Shares shall not be recycled and shall not be made available again for grant under the 2021 Stock Incentive Plan: (i) any Shares which would have been issued upon any exercise of an option but for the fact that the exercise price was paid by a "net exercise" or any Shares tendered in payment of the exercise price of an option; (ii) any Shares withheld by the Corporation or Shares tendered to satisfy tax withholding obligations with respect to an Award; (iii) Shares covered by a stock-settled SAR issued under the 2021 Stock Incentive Plan that are not issued in connection with settlement in Shares upon exercise; or (iv) Shares that are repurchased by the Corporation using option exercise proceeds.
- *No Repricing of "Underwater" Options.* The Corporation will not reprice any previously granted Award for which the fair market value (being the closing price of the Shares, as reported on the Nasdaq or TSX, the "Fair Market Value") is less than the exercise price without Shareholder approval other than as a result of certain customary capitalization adjustments.

- *No Discount.* All options must have an exercise price equal to or greater than the Fair Market Value of the underlying Shares on the date of grant.
- *Change in Control.* Customary “Change in Control” provisions are triggered by the consummation of certain transactions, and not their approvals by the Board or the Shareholders. In addition, no Award agreement shall contain a definition of change in control that has the effect of accelerating the exercisability of any Award or the lapse of restrictions related to any Award upon only the announcement or Shareholder approval of (rather than consummation of) any reorganization, merger or consolidation of, or sale or other disposition of all or substantially all of the assets of, the Corporation.

## Summary of the 2021 Stock Incentive Plan

The following brief summary of the 2021 Stock Incentive Plan, as proposed to be amended, is not intended to be exhaustive and is qualified in its entirety by the terms of the 2021 Stock Incentive Plan, a copy of which is attached hereto as APPENDIX B.

### Eligibility

Eligibility under the 2021 Stock Incentive Plan is limited to employees, officers, non-employee directors, consultants, independent contractors or advisors providing services to the Corporation or any entity controlled by the Corporation (an “Affiliate”), or any person to whom an offer of employment or engagement with the Corporation or any Affiliate is extended.

As of April 19, 2022, there were 35 employees, 3 officers, 6 non-employee directors, 4 consultants who are eligible to participate under the 2021 Stock Incentive Plan. The Committee or subcommittee of the Board appointed from time to time by the Board to administer the 2021 Stock Incentive Plan (the “Administrator”), in its sole discretion, will determine which eligible persons will receive Awards under the 2021 Stock Incentive Plan.

### New Plan Benefits

Future benefits under the 2021 Stock Incentive Plan, as proposed to be amended, cannot be determined at this time because the grants are at the discretion of the Board and because their value may be dependent upon the satisfaction of vesting conditions and the future price of the Shares. For additional information on the grants and awards made under the 2021 Stock Incentive Plan during the year ended December 31, 2021, see “Summary Compensation Table.”

### Shares Available for Awards

Subject to customary capitalization adjustments, as of April 19, 2022, the aggregate number of Shares that may be issued under all Awards under the 2021 Stock Incentive Plan, as proposed to be amended, shall equal 9,343,242 Shares. Any Shares subject to an Award pursuant to the Corporation’s share option plan (the “Share Option Plan”) or the 2021 Stock Incentive Plan that is forfeited, cancelled, exchanged or surrendered or that otherwise terminates or expires without a distribution of Shares shall again be available for grant under the 2021 Stock Incentive plan. Shares underlying Awards that can only be paid in cash do not count against the overall 2021 Stock Incentive Plan share limit.

The 2021 Stock Incentive Plan provides that the following Shares shall not be recycled and again made available for grant under the 2021 Stock Incentive Plan: (i) any Shares which would have been issued upon any exercise of an option but for the fact that the exercise price was paid by a “net exercise” or any Shares tendered in payment of the exercise price of an option; (ii) any Shares withheld by the Corporation or Shares tendered to satisfy tax withholding obligations with respect to an Award; (iii) Shares covered by a stock-settled SAR issued under the 2021 Stock Incentive Plan that are not issued in connection with settlement in Shares upon exercise; or (iv) Shares that are repurchased by the Corporation using option exercise proceeds. In addition, Shares issued under Awards granted in substitution for awards previously granted by an entity that is acquire by or merged with the Corporation or an Affiliate shall not be counted against the aggregate number of Shares available for Awards under the 2021 Stock Incentive Plan.

In the event that any dividend (other than a regular cash dividend) or other distribution (whether in the form of cash, Shares, other securities or property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase or exchange of Shares or other securities of the Corporation, issuance of warrants or other rights to purchase Shares or other securities of the Corporation order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the 2021 Stock Incentive Plan, then the Administrator shall, in accordance with applicable law and in such manner as it may deem equitable, adjust any or all of (i) the number and type of Shares (or other securities or other property) that thereafter may be made the subject of Awards, and (ii) the number and type of Shares (or other securities or other property) subject to outstanding Awards.

## Types of Awards

### Options

The 2021 Stock Incentive Plan authorizes awards of options. Subject to the limitations of the 2021 Stock Incentive Plan, the Administrator may grant options for such number of Shares and having such terms as the Administrator designates.

Options shall vest and be exercisable in the timeframe determined by the Administrator, which shall be set forth in the applicable option award agreement. The Administrator fixes the term of each option when granted, but such term may not be greater than 10 years from the date of grant. The exercise price of options is established by the Administrator and shall not be less than 100% of the Fair Market Value of a Share on the date of grant, except in limited circumstances. Payment for the exercise price may be made in cash or its equivalent, payment in unrestricted Shares already owned by the participant or, to the extent permitted under the relevant option award agreement, payment through (i) the sale by a broker acceptable to the Corporation on behalf of the participant of a portion of the Shares subject to the option, or (ii) the withholding of Shares that would otherwise be issuable in connection with the exercise of the options.

### Stock Appreciation Rights

The 2021 Stock Incentive Plan authorizes awards of SARs, which confer to the holder a right to receive the excess of (i) the Fair Market Value of one Share on the date of exercise over (ii) the grant price of the SAR as specified in the relevant award agreement, which price shall not be less than 100% of the Fair Market Value of one Share on the date of grant of the SAR. The terms and conditions of a SAR will be set forth in an applicable award agreement, as determined by the Administrator. The Administrator fixes the term of each SAR when granted, but such term may not be greater than 10 years from the date of grant.

### Restricted Stock and Restricted Stock Units

The 2021 Stock Incentive Plan authorizes awards of restricted stock and Restricted Stock Units, which will confer to the holder Shares or a right to receive Shares subject to such restrictions as the Administrator may impose in an award agreement.

Restricted stock shall be issued at the time such Awards are granted and will be held by the Corporation or a nominee until they are no longer subject to restrictions. In the case of Restricted Stock Units, no Shares shall be issued at the time such Awards are granted. Upon the lapse or waiver of restrictions and the restricted period relating to Restricted Stock Units evidencing the right to receive Shares, such Shares shall be issued and delivered to the holder of such Restricted Stock Units.

#### *Dividend Equivalents*

The 2021 Stock Incentive Plan authorizes the Administrator to grant Dividend Equivalents under which the participant shall be entitled to receive payments equivalent to and in lieu of the amount of cash dividends paid by the Corporation to holders of Shares with respect to a number of Shares determined by the Administrator. The Administrator may not, however, grant Dividend Equivalents to participants in connection with grants of options or SARs and dividend and Dividend equivalent amounts with respect to any Share underlying restricted stock or Restricted Stock Unit awards may be accrued but not paid to a participant until all conditions or restrictions relating to such Share have been satisfied, waived or lapsed.

#### *Limitations on Awards*

The sum of the grant date fair value of equity-based Awards and the amount of any cash-based compensation granted to a non-employee director during any calendar year shall not exceed \$500,000, subject to certain exceptions for compensation granted to a non-executive chair of the Board, in limited circumstances.

#### *Transfer of Awards*

No Award (other than fully vested and unrestricted Shares issued pursuant to any Award) and no right under any such Award shall be transferrable other than by will or by the laws of descent and distribution. In addition, no Award (other than fully vested and unrestricted Shares issued pursuant to any Award) and no right under any such Award may be pledged, alienated, attached or otherwise encumbered, and any purported pledge, alienation, attachment or encumbrance thereof shall be void and unenforceable against the Corporation or any Affiliate.

#### *Amendment and Termination*

The Board may from time to time amend, suspend or terminate the 2021 Stock Incentive Plan or any Award agreement, and the Administrator may amend the terms of any previously granted Award, provided that no amendment to the terms of any previously granted Award may (except as expressly provided in the 2021 Stock Incentive Plan), materially and adversely alter or impair the terms or conditions of the Award previously granted without the participant's consent. Any amendment to the 2021 Stock Incentive Plan, an Award agreement or to the terms of any Award previously granted is subject to compliance with all applicable laws, rules, regulations and policies of any applicable laws, rules, regulations and policies of any applicable governmental entity or stock exchange.

Prior approval of the Shareholders shall be required to make any amendment to the 2021 Stock Incentive Plan or an Award that would (i) require Shareholder approval under the rules of the TSX, the rules or regulations of the SEC, or any other securities exchange that is applicable to the Corporation; (ii) increase the number of Shares authorized under the 2021 Stock Incentive Plan; (iii) permit repricing of Options or SARs, which is currently prohibited; (iv) permit the award of Options or SARs at a price less than 100% of the Fair Market Value of a Share on the date of grant; (v) increase the maximum term permitted for options and for SARs; or (vi) increase the maximum number of Shares or dollar value of Awards which can be granted to a participant in a calendar year.

#### *Change in Control*

Effective upon the consummation (or immediately prior to the consummation) of any reorganization, merger, consolidation, split-up, spin-off, combination, plan of arrangement, take-over bid or tender offer, repurchase or exchange of Shares or other securities of the Corporation or any other similar corporate transaction or event involving the Corporation (each, a "Change in Control Event"), the Administrator may, in its sole discretion, provide for (i) the termination of any Award, whether or not vested, in exchange for an amount of cash and/or other property; (ii) the replacement of any Award with other rights or property selected by the Administrator in its sole discretion; (iii) the Award to be assumed by, or substituted for a similar Award from, the successor or survivor of the Corporation, or a parent or subsidiary thereof, with appropriate adjustments; (iv) the vesting or exercisability of Awards notwithstanding anything to the contrary in the applicable Award Agreement; or (v) the determination of a future date after which Awards cannot vest, be exercised or become available, which may be the effective date of the Change in Control Event.

#### *Clawback Provisions*

All awards under the 2021 Stock Incentive Plan are subject to forfeiture or other penalties pursuant to any clawback policy that may be adopted by the Corporation.

### **U.S. Federal Income Tax Consequences**

*Grant of Options and SARs* The grant of a stock option or SAR is not expected to result in any taxable income to the recipient.

*Exercise of Options and SARs* Upon exercising a non-qualified stock option, the optionee must recognize ordinary income equal to the excess of the fair market value of the shares of the Corporation's common stock acquired on the date of exercise over the exercise price. The holder of a tax-qualified Incentive Stock Option ("ISO") generally will have no taxable income upon exercising the option (except that an alternative minimum tax liability may arise). Upon exercising a SAR, the amount of any cash received and the fair market value on the exercise date of any of our Shares received are taxable to the recipient as ordinary income.

*Disposition of Shares Acquired Upon Exercise of Options and SARs* The tax consequence upon a disposition of Shares acquired through the exercise of an option or SAR will depend on how long the Shares have been held and whether the shares were acquired by exercising an ISO or by exercising a non-qualified stock option or SAR. Generally, there will be no tax consequence to the Corporation in connection with the disposition of Shares acquired under an option or SAR in the case of the disposition of Shares acquired under an ISO if the disposition occurs before the applicable ISO holding periods set forth in the Internal Revenue Code have been satisfied.

*Awards Other Than Options and SARs* If an award is payable in Shares that are subject to substantial risk of forfeiture, unless a special election is made by the holder of the award under the Internal Revenue Code, the holder must recognize ordinary income equal to the excess of: (i) the fair market value of the Shares received (determined as of the first time the Shares become transferable or not subject to substantial risk of forfeiture, whichever occurs earlier) over (ii) the amount (if any) paid for the Shares by the holder of the award. As to other awards granted under the 2021 Stock Incentive Plan that are payable either in cash or shares of our common stock not subject to substantial risk of forfeiture, the holder of the award must recognize ordinary income equal to: (a) the amount of cash received or, as applicable, (b) the excess of (i) the fair market value of the shares received (determined as of the date such shares are received) over (ii) the amount (if any) paid for the shares by the holder of the award.

*Special Rules for Executive Officers Subject to Section 16 of the Exchange Act* Special rules may apply to individuals subject to Section 16 of the Securities Exchange Act of 1934. In particular, unless a special election is made pursuant to the Internal Revenue Code, shares received through the exercise or settlement of an award may be treated as restricted as to transferability and subject to a substantial risk of forfeiture for a period of up to six months after the date of exercise. Accordingly, the amount of any ordinary income recognized will be determined as of the end of that period.

*Section 409A of the Internal Revenue Code.* The Administrator intends to administer and interpret the 2021 Stock Incentive Plan and all award agreements in a manner consistent to satisfy the requirements of Section 409A of the Internal Revenue Code to avoid any adverse tax results thereunder to a holder of an award.

THE FOREGOING IS ONLY A SUMMARY OF THE EFFECT OF U.S. FEDERAL INCOME TAXATION UPON PARTICIPANTS AND THE CORPORATION UNDER THE 2021 STOCK INCENTIVE PLAN. IT DOES NOT PURPORT TO BE COMPLETE AND DOES NOT DISCUSS THE TAX CONSEQUENCES OF A PARTICIPANT'S DEATH OR THE PROVISIONS OF THE INCOME TAX LAWS OF ANY MUNICIPALITY, STATE OR FOREIGN COUNTRY IN WHICH THE PARTICIPANT MAY RESIDE.

### **Canadian Federal Income Tax Consequences**

The following is, as of the date of this Proxy Statement, a summary of the principal Canadian federal income tax consequences under the *Income Tax Act* (Canada) (referred to throughout as the "Act") applicable to the granting, holding and disposing of rights to acquire, or one or more resulting, Shares by an eligible person on the exercise or settlement of an award granted to the eligible person pursuant to the 2021 Stock Incentive Plan.

The summary is based on the current provisions of the Act and the regulations thereunder in effect on the date of this Proxy Statement and does not take into account any proposed amendments to the Act. In particular, it does not take into account draft legislation tabled or any announced changes resulting from an Economic Statement or Federal Budget affecting the taxation of employee stock options.

This summary does consider the current administrative policies of Canada Revenue Agency, and we assume that each administrative policy will continue to be applied and that no other relevant change to any applicable law will be made, although no assurance can be given in these respects.

This summary does not take into account any applicable provincial, territorial or foreign tax laws. Comment is restricted to the case of an eligible person who is an individual and who holds his common shares as capital property and deals at arm's length with the Corporation and each of our associated, affiliated, controlled and subsidiary companies.

We assume in this summary that such eligible person does not use or hold (and will not use or hold) and is not (and will not be) deemed to use or hold his Shares in, or in the course of carrying on, a business in Canada. We further assume that the exercise price of any stock option granted is not less than the fair market value of the Shares at the time the option was granted and that at the time any options are exercised, the common shares will satisfy the requirements for "prescribed shares" as set out in section 6204 of the regulations under the Act.

Generally speaking, a "prescribed share" is an ordinary common share that does not have any fixed or special entitlements and cannot reasonably be expected to be redeemed, acquired or cancelled by the corporation or a specified person, except in certain limited circumstances specified in section 6204 of the regulations.

For all equity based compensation awards granted to a resident of Canada, the Corporation or an affiliate will be required to deduct, withhold and remit tax and social security (i.e. Canada or Québec Pension Plan and Employment Insurance premiums) amounts and report the award on the employee's T4 slip for the year in which income taxation is realized.

This summary assumes that an eligible person participating in the 2021 Stock Incentive Plan will be a resident of Canada (referred to throughout as a "Canadian Participant") for purposes of both the Act and the Convention Between Canada and the United States of America with Respect to Taxes on Income and on Capital, signed September 26, 1980, as amended (the "Canada-U.S. Tax Convention"). A Canadian Participant may be a director, officer or employee of the Company or any of our associated, affiliated, controlled and subsidiary companies (referred to throughout as a "Canadian Employee") or a consultant (referred to throughout as a "Canadian Consultant").

Finally, the following discussion is not exhaustive and may not cover all aspects of a participant's unique tax situation. This summary should not be construed as tax advice by the Corporation, and it was not intended or written to be used, and it cannot be used, by any person for the purpose of avoiding any tax penalties that may be imposed on such person. Participants should seek advice based on their particular circumstances from an independent tax advisor.

**Grant of Options.** No Canadian federal income tax consequences should arise as a consequence of the grant of a stock option to a Canadian Employee in respect of, in the course of, or by virtue of their employment. Where a Canadian Consultant receives an option under the 2021 Stock Incentive Plan as payment for services, generally the fair market value of the option at the time of grant will be taxable as regular business income.

**Exercise of Options.** A Canadian Employee who acquires Shares in a taxation year pursuant to the exercise of an option will be deemed to have received a benefit by virtue of his employment equal to the amount by which the value of the common shares at the time of acquisition exceeds the amount paid by him for the common shares (the "Benefit"). The Benefit is included in the employment income of the Canadian Employee in the year the option is exercised.

The Canadian Employee may be entitled to a deduction in computing his taxable income for the year in which the Benefit is included in income, equal to one-half of the amount of the Benefit (the "Deduction"), provided that: (i) the exercise price of the option was not less than the fair market value of the common shares at the time the option was granted; (ii) there has not been any adjustment of the exercise price or the number of common shares to be issued on the exercise of options (to account for the payment of dividends or otherwise); (iii) the only securities acquired on the exercise of the options are common shares that are prescribed shares at the time they are acquired; and (iv) the Canadian Employee dealt at arm's length with us and with each of our subsidiaries immediately after the grant of the options.

For options granted by certain companies on or after July 1, 2021, recent changes to the Act result in a C\$200,000 annual cap applying to the amount of employee stock options that may "vest" for an employee in a year and continue to qualify for the Deduction. No changes have been made to the initial income inclusion; rather, this cap only applies to the ability to claim the 50% Deduction. An option is said to vest when it first becomes exercisable. For the purpose of determining the amount of options that vest in any calendar year, the value of those options will be the fair market value of the underlying shares when the options were granted.

If an employee exercises an option that exceeds the C\$200,000 limit in a particular vesting year, the difference between the fair market value of the share at the time the option is exercised and the exercise price paid by the employee to acquire the share will simply be treated as employment income and will be fully taxable, making it consistent with the treatment of other forms of employment income such as salary, wages or a bonus. In other words, the employee won't be entitled to the Deduction on the exercise of these options. Where an employee works for more than one employer, the C\$200,000 annual limit is combined where employers do not deal at arm's length; however, if the employers deal at arm's length with one another, then a separate C\$200,000 cap applies to each such employer. These new tax rules only apply to employee stock options granted after June 30, 2021. The former rules continue to apply to options granted before July 1, 2021.

Generally, an employer is not entitled to a deduction for tax purposes in respect of employee stock options. However, where the employee is not entitled to the 50% stock option Deduction, the employer will be entitled to a tax deduction for the amount of the stock option benefit included in the employee's income. Employers are required to notify employees where options granted will not be eligible for the 50% stock option deduction.



While these new rules may be significant for future grants of options, they do not apply to options exercised in 2021 as employers whose annual gross revenue does not exceed C\$500 million are generally not subject to the new rules. Because they are exempt from the new rules, neither the Corporation nor any Canadian affiliate have the option to opt in to the new rules (which may have been desirable should they have been able to deduct all or a portion of the stock option benefit from their income).

**Disposition of Shares Acquired Upon Exercise of Options.** Shares acquired by a Canadian Employee are generally capital property for purposes of the Act. The Canadian Employee's adjusted cost base of each Share at any time is generally determined by reference to the average cost of all Shares of the same class held by the Canadian Employee at that time, whether acquired through stock options or otherwise. On a disposition of Shares, the Canadian Employee will realize a capital gain (or loss) equal to the amount by which the net proceeds of disposition exceed (or, are exceeded by) the Canadian Employee's adjusted cost base of such shares. One half of capital gains ("taxable capital gain") net of one half of capital losses ("allowable capital loss") realized in the year is included in the employee's income for the year and taxed at ordinary rates. If allowable capital losses exceed taxable capital gains realized in the year, the net capital loss may generally be carried back three taxation years and forward to future years to offset taxable capital gains realized in those years.

#### SARs

From the perspective of the Canadian Employee, there will be no income inclusion at the time of grant of a SAR provided that the initial value at the date of grant of the SAR, from which the increase will be measured, is no greater than the fair market value of the Share at the time of grant.

The amount equal to the appreciation in value (if any) in the stock price from the grant date to a pre-settlement date will be included in the Canadian Employee's income from employment in the year of receipt.

Where Shares are issued, neither the Corporation nor any Canadian affiliate would be entitled to a deduction.

#### Restricted Stock

The 2021 Stock Incentive Plan authorizes awards of restricted stock which will confer to the holder Shares subject to such restrictions as the Administrator of the 2021 Stock Incentive Plan may impose in an award agreement. Under Canadian tax rules, the Canadian Employee would be taxed on the value of restricted stock at the time such Shares are issued. The only relief is that the Canada Revenue Agency will permit a reasonable discount from the fair market value of a share that is not subject to any restrictions in determining the value of a restricted share. Dividends received on Shares are taxed to the Canadian Employee as dividend income.

Neither the Corporation nor any Canadian affiliate would be entitled to a deduction.

#### Restricted Share Units

In the case where Shares are issued and delivered to a Canadian Employee upon vesting and settlement of the RSUs, no amount is required to be included in the Canadian Employee's income until such Shares are issued and delivered. At such time, an amount equal to the fair market value of the Shares received is included in the Canadian Employee's employment income to be taxed at the Canadian Employee's applicable marginal tax rates.

The 2021 Stock Incentive Plan authorizes the Administrator to grant Dividend Equivalents under which Canadian Employees shall be entitled to receive payments equivalent to and in lieu of the amount of cash dividends paid by the Corporation to holders of Shares with respect to a number of Shares determined by the Administrator. Dividend Equivalents are effectively a book entry only and are not taxable until the DSUs are settled.

Where the RSUs are settled in Shares, the subsequent disposition of the Shares by the Canadian Employee would generate capital gains or a capital loss depending on the value of the Shares at that time and such capital gain or loss (if any) would be reflected in the Canadian Employee's tax return.

Neither the Corporation nor any Canadian affiliate would be entitled to deduction.

THE FOREGOING IS ONLY A SUMMARY OF THE EFFECT OF CANADIAN FEDERAL INCOME TAXATION UPON PARTICIPANTS AND THE CORPORATION UNDER THE 2021 STOCK INCENTIVE PLAN. IT DOES NOT PURPORT TO BE COMPLETE AND DOES NOT DISCUSS THE TAX CONSEQUENCES OF A PARTICIPANT'S DEATH OR THE PROVISIONS OF THE INCOME TAX LAWS OF ANY MUNICIPALITY, PROVINCE, STATE OR FOREIGN COUNTRY IN WHICH THE PARTICIPANT MAY RESIDE.

#### **Approval**

With respect to the Amendment, the Corporation is relying on an exemption from certain requirements of the TSX Company Manual relating to security based compensation arrangements as it qualifies as an "Eligible Interlisted Issuer" as defined in Section 602.1 of the TSX Company Manual.

The Amendment Resolution requires the approval of a majority of the votes cast by the Shareholders at the Meeting. If the Amendment is not approved, no additional Shares available for grant will be added to the 2021 Stock Incentive Plan. Given that, as of April 19, 2022, we only have 1,504,707 Shares currently available under the 2021 Stock Incentive Plan, we may not have sufficient Shares available for future Awards, which could hamper our ability to retain and incentivize our current employees as well as limit our ability to attract and incentivize new employees. Therefore, we consider approval of the Amendment vital to our future success. Therefore, at the Meeting, Shareholders will be asked to consider, and if deemed advisable, to pass the following Amendment Resolution:

#### **BE IT RESOLVED AS AN ORDINARY RESOLUTION OF THE SHAREHOLDERS THAT:**

1. Aptose Biosciences Inc. (the "Corporation") is hereby authorized to amend its 2021 stock incentive plan (the "2021 Stock Incentive Plan") to increase the number of Shares reserved for issuance thereunder by 3,000,000; and
2. any director or officer of the Corporation is authorized and directed to execute and deliver for and in the name of and on behalf of the Corporation all such certificates, instruments, agreements, notices and other documents and to do such other acts and things as, in the opinion of such persons, may be necessary or desirable to give effect to the foregoing and facilitate the implementation of the foregoing resolutions.

**Unless you have specified in the enclosed form of proxy that the votes attaching to the Shares represented by the proxy are to be voted against the Amendment Resolution on any ballot that may be called for, 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 Amendment Resolution.**

## Board Recommendation

**The Board believes the passing of the Amendment Resolution is in the best interest of the Corporation and unanimously recommends a vote FOR the passing of the Amendment Resolution.**

### PROPOSAL NO. 4—ADVISORY (NON-BINDING) VOTE ON THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS

As required by Section 14A of the Exchange Act, the Corporation is seeking a vote on an advisory basis to approve the compensation of the Named Executive Officers (as defined below), as disclosed in this Proxy Statement. Because this vote is advisory, the results will not be binding on the Corporation or the Board. However, this proposal, commonly known as a “say-on-pay” proposal, gives Shareholders the opportunity to endorse or not endorse the Corporation’s executive compensation programs and the results will be taken into consideration when future decisions regarding executive compensation are made. The Company provides its shareholders with the opportunity to cast an annual advisory vote on executive compensation (a “Say on Pay Proposal”).

As described under “Executive Compensation” below, the Corporation believes that its executive compensation programs are designed to:

- attract and retain qualified, motivated and achievement-oriented individuals by offering compensation that is competitive in the industry and marketplace, especially given the current challenging market conditions for recruiting and retaining talent;
- 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.

The Corporation, the Board and the Compensation Committee believe that the executive compensation of its Named Executive Officers is reasonable and appropriate, justified by the Corporation’s performance and conducive for long-term value creation. The Corporation’s view is that the compensation of its executives must be competitive, weighted and fair. For this reason, the Compensation Committee retained Radford (an Aon Consulting Company) in 2018, and more recently in 2020, to provide independent advice regarding executive compensation to the Compensation Committee. Radford concluded, in December 2020, that the executive compensation program was generally aligned with market (between the 50<sup>th</sup> and the 75<sup>th</sup> percentile for the cash and equity portions of the compensation package).

The Corporation urges Shareholders to read the section entitled “Executive Compensation” and the related narrative and tabular compensation disclosure included in this Proxy Statement. The section entitled “Executive Compensation” provides detailed information regarding the Corporation’s executive compensation program, as well as the compensation of the Named Executive Officers.

At the Meeting, Shareholders will be asked to consider and, if deemed appropriate, to approve, an advisory (non-binding) resolution in the form set out below (the “Say-on-Pay Resolution”), subject to such amendments, variations or additions as may be approved at the Meeting. In order to be passed, the advisory (non-binding) Say-on-Pay Resolution must be passed by a majority of the votes cast by Shareholders present virtually or by proxy at the Meeting.

The text of the advisory (non-binding) Say-on-Pay Resolution to be submitted to Shareholders at the Meeting is set forth below:

### BE IT RESOLVED THAT:

1. the compensation paid to the Corporation’s named executive officers, as disclosed pursuant to Item 402 of Regulation S-K, including the compensation tables and related narrative discussion contained in the proxy statement dated April 19, 2022, is approved on an advisory basis.

## Board Recommendation

**The Board believes the passing of the Say-on-Pay Resolution is in the best interest of the Corporation and unanimously recommends a vote FOR the passing of the Say-on-Pay Resolution.**

## EXECUTIVE COMPENSATION

### Information About Our Executive Officers

Aptose's leadership team comprises accomplished industry, financial and clinical research professionals who are dedicated to building a comprehensive anticancer drug pipeline and clinical development programs focused on targeted therapeutics directed against dysregulated oncogenic processes in patients with life. For the year ended December 31, 2021, the team included our Chairman, President and Chief Executive Officer, Dr. William G. Rice, whose biography is listed above; our Senior Vice President, Chief Business Officer and Chief Financial Officer, Dr. Jotin Marango; and our Chief Medical Officer, Dr. Rafael Bejar. Mr. Gregory K. Chow also was part of the leadership team as Aptose's Executive Vice President and Chief Financial Officer prior to his resignation, effective March 26, 2021.

On April 7, 2022, we announced that Dr. Jotin Marango, Aptose's Senior Vice President, Chief Business Officer and Chief Financial Officer, was resigning to pursue other opportunities.

*Dr. Jotin Marango*, M.D, Ph.D., age 42, joined Aptose as Senior Vice President and Chief Business Officer in June 2019, and was promoted to the additional role of Chief Financial Officer in 2021. Prior to joining Aptose, from 2017 to 2019, Dr. Marango was a managing director and senior research analyst at Roth Capital Partners covering biotechnology and therapeutics. Dr. Marango joined Roth from H.C. Wainwright & Co., where he worked from 2015 to 2017 and covered hematology, oncology, and pulmonary therapeutics, with a focus on epigenetic and molecularly targeted therapies. Dr. Marango began his career in equity research with Collins Stewart/Canaccord Genuity in 2010. Previously, Dr. Marango also served as Chief Operating Officer at the Samuel Waxman Cancer Research Foundation from 2012 to 2015, where he oversaw academic collaborations in translational therapeutics, as well as venture philanthropy initiatives in drug development. Dr. Marango studied theoretical chemistry and classical literature at Harvard University and later received his M.D. and Ph.D. degrees from the Mount Sinai School of Medicine in New York.

*Dr. Rafael Bejar*, M.D, Ph.D., age 50, joined Aptose as Senior Vice President and Chief Medical Officer in January 2020. Dr. Bejar is an internationally recognized physician scientist with extensive research and clinical experience in the area of hematologic malignancies. Dr. Bejar joined Aptose from UC San Diego ("UCSD") where he began working in 2012. He continues to serve at UCSD as an Associate Professor of Clinical Medicine, caring for patients and maintaining a research laboratory focused on translational studies of myeloid malignancies and also serves and is an independent consultant as a member of the Independent Data Monitoring Committee for other pharmaceutical companies. At UCSD, he founded the MDS Center of Excellence and led the Hematology Disease Team from 2017 to 2019. There he has directed several clinical studies and served as an advisor for numerous companies including Celgene, Takeda, AbbVie, Astex, Genoptix, Forty Seven, PersImmune, and Daiichi-Sankyo. Outside UCSD, Dr. Bejar sits on the Scientific Advisory Board for the MDS Foundation, is a prior member of the National Comprehensive Cancer Network Guidelines Committee, and has led projects for the International Working Group for MDS. He is frequently invited to speak at national and international meetings and has published articles in a variety of journals including The New England Journal of Medicine, Journal of Clinical Oncology, Leukemia, Blood, and Blood Advances. Dr. Bejar completed his fellowship at the Dana-Farber Cancer Institute and has been board certified in Hematology and Oncology. He completed his internship in Internal Medicine at the University of Chicago followed by his residency at the Brigham and Women's Hospital in Boston where he later served a Medical Chief Resident and an Instructor in Hematology. He holds an MD degree and Neuroscience PhD from UCSD and a BS in Physics from MIT.

The following discussion covers the compensation arrangements for Dr. Rice, Dr. Marango, Dr. Bejar, as well as Mr. Chow (each, an "NEO" and, collectively the "Named Executive Officers").

### Compensation 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 equity-based compensation plans, 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, especially given the current challenging market conditions for recruiting and retaining talent;
- 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 equity-based compensation plans.

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.

#### *Impact of COVID 19 on the Corporation's workforce*

COVID-19 has caused global economic and social disruptions that could adversely affect the Corporation's ongoing or planned research and development and clinical trial activities and its workforce.

Aptose's team proactively addressed these new challenges swiftly and appropriately, implementing safeguards and procedures to ensure both the safety of the employees and stakeholders, and accommodate the potential challenges due to COVID-19. Aptose was early in directing its employees to work-from-home and provided the tools to minimize productivity disruptions. Aptose's clinical operations team reached out to active and future clinical sites to determine their needs and challenges and assist where possible, including virtual monitoring of patients, which reduces patients' visits. Since the early part of the COVID-19 pandemic in the first quarter of 2020, the Corporation began to carefully monitor the potential impact of COVID-19, and on a regular basis, communicated with investigators at its clinical sites to gain an evolving understanding of competing COVID-19 related activities and clinical trial related activities. While it is difficult to estimate the duration and impact of COVID-19 on the Corporation's workforce, as of the date of this report, the Corporation has not experienced and does not foresee material impacts.

#### **Independent Advice**

In 2020, the Compensation Committee retained Radford (an Aon Consulting Company), to provide independent advice to the Compensation Committee and to conduct a detailed assessment of the executive compensation program of the Corporation. Radford was retained to identify a peer group of companies as well as perform an assessment of the competitiveness of the Corporation's executive compensation process. Radford did 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.

The Committee conducted an independence assessment for Radford in accordance with the Committee's charter and Nasdaq listing standards, considering factors included in the listing standards. The Committee determined, based on an analysis of these factors, that the work of Radford as the independent compensation consultant did not create any conflict of interest.

Radford concluded, in December 2020, that the executive compensation program was generally aligned with market (between the 50<sup>th</sup> and the 75<sup>th</sup> percentile for the cash and equity portions of the compensation package).

#### **Comparator Group**

In 2020, 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 comparator group takes into account direct competitors for talent, especially for industry specific roles. The comparator group is comprised of 15 publicly traded U.S. biotechnology companies which range in size from approximately 2/3 × to 4 1/2 × the market capitalization of the Corporation (as of November 2020). The companies comprising the comparator group are as follows:

Comparator Group Companies	
AnaptysBio, Inc.	MEI Pharma, Inc.
Apria Therapeutics, Inc.	Mersana Therapeutics, Inc.
Atreca, Inc.	Replimune Group, Inc.
Constellation Pharmaceuticals, Inc.	Syndax Pharmaceuticals, Inc.
CytomX Therapeutics, Inc.	Syros Pharmaceuticals, Inc.
IGM Biosciences, Inc.	TCR2 Therapeutics, Inc.
ImmunoGen, Inc.	ZIOPHARM Oncology, Inc.
Kura Oncology, Inc.	

#### **Pay Positioning**

The Corporation endeavors to target total cash compensation (salary and short-term incentive) somewhat above the 50<sup>th</sup> percentile of the comparator group, and generally provides long-term incentive opportunities in the 50<sup>th</sup> to 75<sup>th</sup> percentile of the comparator group. The Compensation Committee believes this approach aligns executive compensation with the long-term interests of shareholders and with the Corporation's strategy, particularly when relatively few executives are performing multiple executive roles. In 2020, 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, as further explained below, the Compensation Committee set compensation for the executives for 2020 aligned with the target pay positioning set out above.

Although the Compensation Committee considers Radford's recommendations in its review of executive compensation, the Compensation Committee ultimately makes its own decisions about compensation matters. The Compensation Committee realizes that using a peer benchmark such as the one provided by Radford is neither the only means for gathering and validating market data nor the only criteria for establishing executive compensation. In instances where an executive is uniquely critical to our success, the Compensation Committee may provide compensation in excess of the benchmark of the comparator group companies. Upward or downward variations for base salary and long-term incentives may also occur as a result of the individual's experience level, the balance of the individual's different elements of compensation, market factors and other strategic considerations. The Compensation Committee believes that, given the competitiveness of our industry and our company culture, our base compensation, cash incentives and equity programs must remain flexible, reward the achievement of clearly defined corporate goals. In addition, the Compensation Committee believes that such programs must be sufficient to retain our existing executive officers and to hire new executive officers, when necessary, and that unnecessary turnover at the executive

level can have expensive consequences from the perspectives of time lost and capital required.

In 2021, achievements that were considered by the Compensation Committee when making compensation recommendations, included the completion of the luxetiniib (“Lux”) dose escalation Phase 1 trial in CLL/NHL B-Cell cancer patients, the completion of the Lux dose escalation Phase 1 trial in AML patients, the introduction of the Lux Generation 3 (G3) formulation into the clinic, the organization of a clinical steering committee for the Lux trials and the completion of a dose escalation trial for APTO-253. The hiring of several new employees, collaborations with academic investigators, the in-licensing of HM43239 and additional responsibilities undertaken as a result of the departure of the CFO were also considered. In addition, the exceptional market environment for the hiring and retention of talent was an important factor for the Compensation Committee and the Board when making compensation decisions.

#### ***Base Salary***

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.

---

46

---

#### ***Short-Term Compensation Incentives***

Short-term compensation incentives motivate our executive officers to achieve specified performance objectives 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 incentive 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 and short-term incentives are reviewed by the Compensation Committee and approved by the Board.

For each executive officer, during the year ended December 31, 2021, the annual cash incentives ranged from 40% to 54% of base salary.

Cash incentives 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.

#### ***Short-Term Compensation Incentives - Performance Metrics***

The performance of the Named Executive Officers for the period ended December 31, 2021 was measured with respect to the following objectives:

- 1) Achievement of certain milestones for the clinical development of the CG-806 program;
- 2) Achievement of certain milestones related to finance, financing and operations;
- 3) Achievement of certain milestones related to corporate development; and
- 4) Achievement of certain milestones related to research support.

Each of the above objectives is weighted at 50%, 30%, 10% and 10%, respectively, in relation to assessment of satisfaction of overall corporate objectives and determination of any general corporate bonuses and additional unanticipated accomplishments during 2021 were also considered.

#### ***Long-Term Incentive Plans***

Long-term compensation incentives at Aptose 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 and of stock-based awards under the 2021 Stock Incentive Plan.

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.

---

47

---

The number of options granted for certain executives of Aptose for the year ended December 31, 2021 was based on achievement of both corporate and executive officer objectives. The Compensation Committee recommends the allocation of options, and options are priced using the closing market price of the Shares on the TSX or on Nasdaq, as applicable, on the last trading day prior to the grant. Options to purchase Shares granted under the Corporation’s share option plan (the “Share Option Plan”) expire ten years from the date of grant and vest over a term recommended by the Compensation Committee and approved by the Board of Directors. During 2021, options granted to Aptose Named Executive Officers vested over four years, except for 800,000 options which vest in accordance to performance criteria established by the Board of Directors. The Compensation Committee and the Board consider previous grants of options when considering new grants of options.

Stock and option awards may be subject to accelerated vesting in the event of termination or change of control, see “Termination and Change of Control Benefits.”

#### ***Other Benefits***

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 a competitive remuneration package for executives.

#### ***Hedge or Offset Instruments***

Named Executive Officers, other Aptose employees, and directors are not restricted from purchasing financial instruments that are designed to hedge or offset a decrease in market value of the Corporation’s 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.

#### ***Employment Agreements***

Aptose entered into an employment agreement with Dr. Rice on October 25, 2013 upon his commencement as Chairman, President, and Chief Executive Officer. This agreement was amended and restated on August 19, 2014. Pursuant to the amended and restated employment agreement, Dr. Rice is entitled to an annual base salary of \$480,000, which amount is reviewed annually by the Board and increased at the Board's discretion, upon the advice of the Compensation Committee. Dr. Rice is also eligible for an annual discretionary bonus of up to 50% of his current base salary. The annual bonus is based on the Corporation's and Dr. Rice's achievement of objectives and milestones to be determined on an annual basis by the Board. Dr. Rice is entitled to receive termination benefits described under "Termination and Change of Control Benefits," below. Dr. Rice also receives employee benefits including, without limitation, participation in the Corporation's 401(k) plan with a 3% non-elective company contribution, participation in Aptose's group health coverage plan and life insurance plan for US employees, 25 days of paid vacation time annually, and an annual automobile allowance of \$18,000. Dr. Rice is subject to certain non-compete restrictions.

Aptose entered into an employment agreement with Dr. Marango upon his commencement as Chief Business Officer, effective June 3, 2019. Pursuant to the employment agreement, Dr. Marango is entitled to an annual base salary of \$390,000 which amount is reviewed annually by the Board and increased at the Board's discretion, upon the advice of the Compensation Committee. Dr. Marango is also eligible for an annual discretionary bonus of up to 40% of his current base salary. The annual bonus is based on the Corporation's and Dr. Marango's achievement of objectives and milestones to be determined on an annual basis by the Board. Dr. Marango's agreement also provides for termination benefits described under "Termination and Change of Control Benefits," below. Dr. Marango also receives employee benefits, including, without limitation, participation in any 401(k) plan with a 3% non-elective company contribution, participation in other benefits provided by Aptose to its U.S. based executive officers and other employees, which consist to date of life insurance and health benefits, and 20 days of paid vacation time annually. Dr. Marango's is subject to certain non-compete restrictions.

48

Aptose entered into an employment agreement with Dr. Bejar upon his commencement as Chief Business Officer, effective January 1, 2020. Pursuant to the employment agreement, Dr. Bejar is entitled to an annual base salary of \$400,000 which amount is reviewed annually by the Board and increased at the Board's discretion, upon the advice of the Compensation Committee. Dr. Bejar is also eligible for an annual discretionary bonus of up to 40% of his current base salary. The annual bonus is based on the Corporation's and Dr. Bejar's achievement of objectives and milestones to be determined on an annual basis by the Board. Dr. Bejar's agreement also provides for termination benefits described under "Termination and Change of Control Benefits," below. Dr. Bejar also receives employee benefits, including, without limitation, participation in any 401(k) plan with a 3% non-elective company contribution, participation in other benefits provided by Aptose to its U.S. based executive officers and other employees, which consist to date of life insurance and health benefits, and 20 days of paid vacation time annually. Dr. Bejar is subject to certain non-compete restrictions.

Aptose entered into an employment agreement with Mr. Chow upon his commencement as Chief Financial Officer, effective November 29, 2013, which agreement was terminated as a result of Mr. Chow's resignation effective as of March 26, 2021. Pursuant to the employment agreement, Mr. Chow was entitled to an annual base salary of \$315,000, which amount was reviewed annually by the Board and increased at the Board's discretion, upon the advice of the Compensation Committee. Mr. Chow was also eligible for an annual discretionary bonus of up to 40% of his base salary. The annual bonus is based on the Corporation's and Mr. Chow's achievement of objectives and milestones determined on an annual basis by the Board. Mr. Chow's agreement also provided for termination benefits described under "Termination and Change of Control Benefits," below. Mr. Chow also received employee benefits, including, without limitation, participation in any 401(k) plan with a 3% non-elective company contribution, participation in other benefits provided by Aptose to its U.S. based executive officers and other employees, which consisted of life insurance and health benefits, and 20 days of paid vacation time annually and an annual automobile allowance of \$18,000. Mr. Chow is subject to certain non-compete restrictions.

49

## Summary Compensation Table

The following table details the compensation information for the fiscal years ended December 31, 2020 and December 31, 2021 of the Corporation for the Named Executive Officers. All amounts presented in the following tables are as recorded in US dollars.

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock awards <sup>(1)</sup> (\$)	Option awards <sup>(2)</sup> (\$)	All other compensation <sup>(3)</sup> (\$)	Total compensation (\$)
Dr. William G. Rice <i>Chairman, President and Chief Executive Officer</i>	2021	581,519	310,240	-	953,366	26,700	1,871,825
	2020	581,519	290,760	2,196,000	9,327,516	26,550	12,422,345
Dr. Jotin Marango <i>Senior Vice President, Chief Business Officer and Chief Financial Officer</i>	2021	445,000	194,875	-	1,575,740	22,546	2,238,161
	2020	403,650	161,460	878,400	1,865,503	8,550	3,317,563
Dr. Rafael Bejar <i>Senior Vice President and Chief Medical Officer</i>	2021	440,000	176,000	-	1,575,740	8,700	2,200,440
	2020	400,000	160,000	-	2,466,939	6,923	3,033,862
Mr. Gregory K. Chow <i>Former Chief Operating Officer and Chief Financial Officer</i>	2021 <sup>(4)</sup>	103,846	-	-	2,561,673	64,777	2,730,296
	2020	404,673	161,869	1,647,000	5,596,510	26,550	7,836,602

- (1) The dollar amounts in this column reflect the aggregate grant date fair value of all stock awards granted during the indicated fiscal year. These amounts have been calculated in accordance with ASC 718, excluding the effect of estimated forfeitures. Assumptions used in the calculation of these amounts are included in note 12 to our audited consolidated financial statements included in the Corporation's Annual Report on Form 10-K for the fiscal year ended December 31, 2021 (the "10-K"). These amounts do not necessarily correspond to the actual value recognized or that may be recognized by the NEOs. Stock awards are subject to the executives' continued employment with the Corporation. All stock awards issued to Dr. Rice, Dr. Marango and Dr. Bejar may be subject to accelerated vesting following termination of employment. See "Termination and Change of Control Benefits" below.

- (2) The dollar amounts in this column reflect the aggregate grant date fair value of all share option awards granted during the indicated fiscal year. These amounts have been calculated in accordance with ASC 718, using the Black-Scholes option-pricing model and excluding the effect of estimated forfeitures. Assumptions used in the calculation of these amounts are included in note 12 to our audited consolidated financial statements included in the Corporation's 10-K. These amounts do not necessarily correspond to the actual value recognized or that may be recognized by the NEOs.

During the year ended December 31, 2021 the following share options were granted to NEOs: 343,000 share options for Dr. Rice, 343,000 share options for Mr. Chow, 343,000 share options for Dr. Marango and 343,000 share options for Dr. Bejar at an exercise price of \$4.37 per share. Dr. Marango and Dr. Bejar were also granted 400,000 share options at an exercise price of \$2.35. All options granted will vest over four years. As part of a separation and release agreement with Mr. Chow, vested options of 1,679,169, with exercise prices ranging from \$1.03 to \$7.44, were allowed to continue to be exercisable for an additional 12 month period, and also 504,833 options that would have expired unvested, were allowed to continue to vest for a 12 month period.

50

Share options are subject to the executives' continued employment with the Corporation and have a maximum term of 10 years. All share option grants issued to Dr. Rice, Dr. Marango and Dr. Bejar may be subject to accelerated vesting following termination of employment. See "Termination and Change of Control Benefits" below.

- (3) The dollar amounts in this column reflect the Corporation's contributions to the executives' accounts in our 401(k) plan and car allowances. The contributions to our executives' accounts in our 401(k) plan were as follows: for 2020: \$8,550 for each of Dr. Rice, Mr. Chow and Dr. Marango and \$6,923 for Dr. Bejar and for 2021: \$8,700 for each of Dr. Rice, Mr. Chow and Dr. Marango and Dr. Bejar. Car allowances were as follows: for 2020: \$18,000 to each of Dr. Rice and Mr. Chow for 2021, \$18,000 to Dr. Rice, \$13,846 for Dr. Marango, and \$4,154 for Mr. Chow. Mr. Chow was also paid \$51,923 in accrued vacation at the time he left Aptose.
- (4) Mr. Chow left Aptose on March 26, 2021.

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

Name and Principal Position	Option-based Awards				Share-based awards	
	Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Option exercise price (\$)	Option expiration date	Number shares or units of stock that have not vested (#)	Market value of shares or units of stock that have not vested (\$)
Dr. William G. Rice <i>Chairman, President and Chief Executive Officer</i>	35,417 65,136 5,281 140,000 396,129 120,000 60,000 100,000 50,000 300,000 266,668 266,666 1,000,000 Nil	Nil Nil Nil Nil Nil Nil Nil Nil Nil Nil 66,666 <sup>(1)</sup> 133,334 <sup>(2)</sup> 1,000,000 <sup>(4)</sup> 343,000 <sup>(7)</sup>	2.75 <sup>(5)</sup> 5.79 <sup>(5)</sup> 5.51 <sup>(5)</sup> 4.75 <sup>(5)</sup> 4.51 <sup>(5)</sup> 5.51 <sup>(5)</sup> 3.02 <sup>(5)</sup> 1.20 <sup>(5)</sup> 1.03 2.80 3.07 1.91 6.91 4.37	Oct 27, 2023 Dec 10, 2023 Jan 29, 2024 Apr 10, 2024 Jun 15, 2024 Jun 9, 2025 Mar 30, 2026 Mar 28, 2027 Jun 6, 2027 Jan 19, 2028 Jan 22, 2028 Jan 2, 2029 Jan 30, 2030 Jan 4, 2031	Nil	N/A
Dr. Jotin Marango <i>Senior Vice President, Chief Business Officer and Financial Officer</i>	213,334 200,000 Nil 200,000	106,666 <sup>(3)</sup> 200,000 <sup>(4)</sup> 343,000 <sup>(7)</sup> 200,000 <sup>(8)</sup>	2.00 6.91 4.37 2.35	Jun 3, 2029 Jan 30, 2030 Jan 4, 2031 Aug 19, 2031	Nil	N/A
Dr. Rafael Bejar <i>Senior Vice President and Chief Medical Officer</i>	200,000 100,000 Nil Nil	200,000 <sup>(6)</sup> 100,000 <sup>(4)</sup> 343,000 <sup>(7)</sup> 400,000 <sup>(8)</sup>	5.67 6.91 4.37 2.35	Jan 1, 2030 Jan 30, 2030 Jan 4, 2031 Aug 19, 2031	Nil	N/A
Mr. Gregory K. Chow <i>Former Chief Operating Officer and Chief Financial Officer<sup>(9)</sup></i>	35,417 35,417 35,417 22,083 64,167 60,000 60,000 100,000 50,000 150,000 291,667 200,000 600,000 Nil	Nil Nil Nil Nil Nil Nil Nil Nil Nil Nil 58,333 <sup>(1)</sup> 50,000 <sup>(2)</sup> 200,000 <sup>(4)</sup> 171,501 <sup>(7)</sup>	7.41 <sup>(5)</sup> 5.79 <sup>(5)</sup> 4.75 <sup>(5)</sup> 4.48 <sup>(5)</sup> 4.15 <sup>(5)</sup> 5.46 <sup>(5)</sup> 3.02 <sup>(5)</sup> 1.20 <sup>(5)</sup> 1.03 2.80 3.07 1.91 6.91 4.37	Jun 26, 2022 Jun 26, 2022 Jun 26, 2022 Jun 26, 2022 Jun 26, 2022 Jun 26, 2022 Jun 26, 2022 Jun 26, 2022 Jun 26, 2022 Jun 26, 2022 Jun 26, 2022 Jun 26, 2022 Jun 26, 2022	Nil	N/A

1. Unexercisable options vest on January 22, 2022.
2. Unexercisable options vest as follows: 50% vest on January 2, 2022, and 50% vest on January 22, 2023 for William Rice and 100% vest on January 2, 2022 for Gregory Chow.
3. Unexercisable options vest as follows: 50% vest on June 3, 2022, and 50% vest on June 3, 2023.
4. Unexercisable options vest as follows: 33.33 % vest on January 30, 2022, 33.33% vest on January 30, 2023, and 33.33% vest on January 30, 2024 for William Rice, Jotin Marango and Rafael Bejar and 100% vest on January 30, 2022 for Gregory Chow.
5. Converted from the Canadian exercise price at the conversion rate of 0.7913 Canadian dollars per U.S. dollar.
6. Unexercisable options vest as follows: 33.33% vest on January 1, 2022, 33.33% vest on January 1, 2023, and 33.33% vest on January 1, 2024.
7. Unexercisable options vest as follows : 50% vest on January 4, 2022, 16.67% vest on January 4, 2023, 16.67% vest on January 4, 2024, and 16.67% vest on January 4, 2025 for William Rice, Jotin Marango, Rafael Bejar and 100% vest on January 4, 2022 for Gregory Chow.
8. Unexercisable options vest either (i) upon reaching certain performance triggers as determined by the Board, or (ii) if such performance triggers are not attained in the opinion of the Board, on August 19, 2025.
9. Gregory Chow left Aptose effective March 26, 2021. As part of a separation and release agreement, with Mr. Chow, vested options of 1,679,169, with exercise prices ranging from \$1.03 to \$7.44, were allowed to continue to be exercisable for an additional 12 month period, and also 504,833 options that would have expired unvested, were allowed to continue to vest for a 12 month period.

## Retirement Benefits

The Corporation maintains a 401(k) plan in which eligible employees of the Corporation may choose to participate, including the Named Executive Officers. The Corporation makes non-elective contributions of 3% of compensation for all eligible employees, subject to the maximum allowed by the Internal Revenue Code Section 401(k).

## Termination and Change of Control Benefits

The employment agreements of Dr. Rice and Dr. Bejar, as well as Dr. Marango prior to his resignation effective April 8, 2022, provide that if their employment is terminated by the Corporation other than for “cause” (defined as (i) theft, fraud, dishonesty or material misconduct of the executive involving the property, business or affairs of the Corporation, which results, or could result in material harm to the Corporation, (ii) any material breach by the NEO of any term of his employment agreement, or (iii) any material breach of the Employee Information and Inventions Agreement (as defined in each employment agreement)), or if the Named Executive Officer resigns for “good reason” (defined as a material reduction in Executive Base Salary (as defined in each employment agreement), unless pursuant to a salary reduction program, a material reduction in the NEO’s duties or the relocation of the NEO’s principal place of employment) each of Dr. Rice, Dr. Marango and Dr. Bejar 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, 2021 annual base salary represents \$581,519, Dr. Marango’s December 31, 2021 base salary represents \$450,000 and Dr. Bejar’s December 31, 2021 base salary represents \$440,000), 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, Dr. Marango and Dr. Bejar provide that certain payments related to health benefits will continue to be made for a period of 12 months following termination of their employment.

52

The employment agreements of Dr. Rice and Dr. Marango 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” (defined as the consummation of any of the following: (a) the acquisition of the Corporation by another entity by means of any transaction or series of related transactions to which the Corporation is a party, (b) a sale, lease or other conveyance of all or substantially all of the assets of the Corporation, or (c) an liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary), each of Dr. Rice and Dr. Marango 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. Chow had, prior to his resignation, the same benefits as Dr. Rice, Dr. Marango and Dr. Bejar. As part of a separation and release agreement with Mr. Chow, vested options of 1,679,169, with exercise prices ranging from \$1.03 to \$7.44, were allowed to continue to be exercisable for an additional 12 month period, and also 504,833 options that would have expired unvested, were allowed to continue to vest for a 12 month period. Mr. Chow was also paid \$51,923 in accrued vacation at the time he left Aptose.

The employment agreements of Dr. Rice, Dr. Marango and Dr. Bejar provide that in the event of their termination, other than for cause, the vesting and exercisability of all then outstanding unvested share options, RSUs or other equity awards then held by such NEO become immediately vested and exercisable and shall remain exercisable as set forth in the applicable award documents.

## DIRECTOR COMPENSATION

### Overview

The Compensation Committee makes recommendations regarding compensation payable to our non-employee directors to the entire Board, which then makes final decisions regarding such compensation.

### Cash Compensation

Non-employee directors are entitled to an annual fee of \$60,000 with no per meeting fees. The Lead Director is entitled to an additional annual fee of \$40,000. The chair of each committee is entitled to an additional annual fee of \$15,000, with the exception of the chair of the Audit Committee who is entitled to an additional annual fee of \$20,000. Each committee member is entitled to receiving an annual fee of \$10,000 per committee. All fees are paid in quarterly installments.

Non-employee directors are reimbursed for any out-of-pocket travel expenses incurred in order to attend meetings. Executive directors are not entitled to directors’ compensation.

### Option Awards

Upon appointment to the Board a non-employee director will be entitled to an option grant of 25,000 options under the Share Option Plan and each year thereafter are eligible for an additional grant at the beginning of the fiscal year. The options vest 50% after one year, and 25% for each of the second and third years. If a director resigns, the director will have 90-days to exercise all vested and unexercised options from the date resignation.

53

The following table details the compensation received by each non-employee director for the year ended December 31, 2021:



Name	Fees earned or paid in cash (\$)	Option awards <sup>(1)(2)</sup> (\$)	Total (\$)
Carol G. Ashe	80,000 <sup>(3)</sup>	138,975	218,975
Caroline M. Loewy	80,000 <sup>(4)</sup>	138,975	218,975
Dr. Denis Burger	125,000 <sup>(5)</sup>	138,975	263,975
Dr. Mark Vincent	75,000 <sup>(6)</sup>	138,975	213,975
Mr. Warren Whitehead	80,000 <sup>(7)</sup>	138,975	218,975
Dr. Erich Platzter	70,000 <sup>(8)</sup>	138,975	208,975

- (1) The dollar amounts in this column reflect the aggregate grant date fair value of all share option awards granted during the indicated fiscal year. These amounts have been calculated in accordance with ASC 718, using the Black-Scholes option-pricing model and excluding the effect of estimated forfeitures. Assumptions used in the calculation of these amounts are included in note 11 to our audited consolidated financial statements included in the Corporation's Annual Report on Form 10-K. These amounts do not necessarily correspond to the actual value recognized or that may be recognized by the non-employee directors.

During the year ended December 31, 2021, the following share options were granted to Aptose directors: 50,000 share options for Ms. Ashe, 50,000 share options for Ms. Loewy, 50,000 share options for Dr. Burger, 50,000 share options for Dr. Vincent, 50,000 share options for Mr. Whitehead and 50,000 share options for Dr. Platzter. All options granted will vest over three years.

- (2) The aggregate number of shares subject to outstanding share options held by each of the non-employee directors listed in the table above as of December 31, 2021 was as follows: 230,000 for Ms. Ashe, 230,000 for Ms. Loewy, 415,251 for Dr. Burger, 406,833 for Dr. Vincent, 360,000 for Mr. Whitehead and 370,000 for Dr. Platzter.
- (3) Ms. Ashe received this amount for her services as director on the Board and as a member of the Board's Corporate Governance and Nominating Committee and Compensation Committee.
- (4) Ms. Loewy received this amount for her services as director on the Board and as a member of the Board's Corporate Governance and Nominating Committee and Audit Committee.
- (5) Dr. Burger received this amount for his services as lead director on the Board, as Chair of the Board's Compensation Committee and as a member of the Board's Audit Committee.
- (6) Dr. Vincent received this amount for his services as director on the Board and as Chair of the Board's Corporate Governance and Nominating Committee.
- (7) Mr. Whitehead received this amount for his services as director on the Board and as Chair of the Board's Audit Committee.
- (8) Dr. Platzter received this amount for his services as director on the Board and as a member of the Board's Compensation Committee.

## EQUITY COMPENSATION PLAN INFORMATION

### General

As of December 31, 2021, the total number of Shares subject to outstanding awards and available for future issuance by the Corporation under the 2021 Stock Incentive Plan and the Share Option Plan was 20,557,628. As of December 31, 2021, there were outstanding options to purchase 1,503,000 Shares issued under the 2021 Stock Incentive Plan and outstanding options to purchase 13,606,838 Shares issued under the Share Option Plan, which, combined, represented 16.39% of the issued and outstanding Shares of the Corporation as of December 31, 2021 and Nil RSUs issued and outstanding under the 2021 Stock Incentive Plan, representing 0.0% of the issued and outstanding Shares of the Corporation.

### 2021 Stock Incentive Plan

On April 20, 2021, the Board unanimously approved and adopted, subject to the approval of the Shareholders, the 2021 Stock Incentive Plan. The 2021 Stock Incentive Plan was ratified, confirmed and approved by the Shareholders at the annual and special meeting held on June 1, 2021.

For a summary of the terms of the 2021 Stock Incentive Plan, see *"Proposal No. 3 – Amendment to the Corporation's 2021 Incentive Plan."*

The Corporation currently maintains its existing Share Option Plan. However, following the approval of the 2021 Stock Incentive Plan by the shareholders at the June 1, 2021 annual shareholder meeting, no further grants were permitted to be made under the Share Option Plan, though existing grants under the Share Option Plan continue in effect in accordance with their terms.

### Share Option Plan

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. Further to the approval of the 2021 Stock Incentive Plan by Shareholders, the Share Option Plan no longer makes new option grants available under the Share Option Plan upon the exercise of options previously granted. A copy of the Share Option Plan was filed on SEDAR at [www.sedar.com](http://www.sedar.com) on June 12, 2015.

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 Corporation did not provide financial assistance to any Eligible Person to facilitate the exercise of Options during the year ended December 31, 2021.

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.

#### **Employee Share Purchase Plan**

On April 20, 2021, the Board unanimously approved and adopted, subject to the approval of the Shareholders, the Corporation’s 2021 employee stock purchase plan (the “ESPP”), a copy of which is attached to the Corporation’s proxy statement dated April 20, 2021 as Appendix C. After being approved by the Shareholders at the annual and special meeting held on June 1, 2021, the ESPP became effective on July 2, 2021.

#### **ESPP Highlights**

##### **The ESPP**

- Reserves 1,700,000 Shares. As of April 19, 2022, the closing price of a Share on Nasdaq was \$1.20;
- permits a participant to contribute up to 15% of his or her eligible compensation each pay period through payroll deductions;

- establishes offering periods (usually two 6-month offering periods);
- permits participants to purchase Shares at a purchase price equal to 85% of the lesser of (i) the Fair Market Value of the Shares on the first trading day of an offering period (the “Offering Date”), and (ii) the Fair Market Value of the Shares on the last trading day of any offering period (or purchase period, if applicable) (the “Exercise Date”); and
- limits the value of Shares that a participant may purchase in a calendar year to \$25,000 and limits the number of Shares that may be purchased by a participant under the ESPP to less than 5% of the outstanding Shares or 10,000 Shares per offering period.

#### **ESPP Benefits**

Participation in the ESPP is voluntary and each eligible employee will have the discretion to determine whether and to what extent to participate in and contribute to the ESPP. Accordingly, the benefits and amounts that will be received or allocated to officers and other employees under the ESPP are not determinable at this time.

#### **Summary of Material Provisions of the ESPP**

The following brief summary of the ESPP is not intended to be exhaustive and is qualified in its entirety by the terms of the ESPP, a copy of which is attached to the Corporation’s proxy statement dated April 20, 2021 as Appendix C.

##### **Plan Administration**

The ESPP is administrated by the Compensation Committee, or by the Board acting in place of the Compensation Committee. Subject to the terms of the ESPP, the Compensation Committee has the authority to, among other matters determine the terms and conditions of offerings under the ESPP, determine the eligibility of participants, and construe, interpret and apply the terms of the ESPP.

##### **Shares Reserved for Issuance**

Subject to customary capitalization adjustments, the maximum number of Shares reserved for issuance from treasury under the ESPP is 1,700,000.

##### **Eligibility**

Any individual who is a common law employee of the Corporation and any of its subsidiaries designated by the Compensation Committee for at least 20 hours per week on any given Offering Date will be eligible to participate in the ESPP.

The Compensation Committee may, in its discretion, exclude the following categories of employees from participation: (i) employees who have not completed at least two years of service since their last hire date; (ii) employees who customarily work not more than 20 hours per week or five months per calendar year; or (iii) certain highly-compensated employees.

As of April 19, 2022, there are approximately 38 employees which are eligible to participate under the ESPP.

### Offering Periods

The ESPP is currently expected to be administered through consecutive six-month periods referred to as “Offering Periods”. The Offering Periods will be determined by the Compensation Committee, provided that no Offering Period may extend for a period longer than 27 months.

On the Offering Date, each eligible employee who has properly enrolled in that Offering Period will be granted an option to purchase Shares to be funded by payroll deductions, based on the participant’s elected contribution rate. Unless a participant has properly withdrawn from the Offering Period, each option granted under the ESPP will automatically be exercised on the Exercise Date. The purchase price will be equal to 85% of the lesser of the Fair Market Value of the Shares on (i) the Offering Date; and (ii) the Exercise Date.

### Contribution and Purchase Limitations

Unless otherwise determined by the Compensation Committee in accordance with the terms of the ESPP, no participant may (i) elect a contribution rate of more than 15% of his or her compensation for the purchase of Shares under the ESPP in any one payroll period; (ii) purchase more than 10,000 Shares under the ESPP on any one Exercise Date; or (iii) purchase Shares that have a Fair Market Value of more than \$25,000, determined as of the Offering Date, in any calendar year.

### Certain Corporate Transactions

If the number of outstanding Shares is changed by a dividend or other distribution (whether in the form of cash, Shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Shares or other securities of the Corporation, or other change in the corporate structure of the Corporation affecting the Shares occur, the Compensation Committee, in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the ESPP will, in such manner as it may deem equitable, adjust the number and class of shares which may be delivered under the ESPP, the purchase price and the number of Shares covered by each option under the ESPP which has not yet been exercised, and the contribution and purchase limitations.

### Amendments and Termination

The Compensation Committee may generally amend, suspend, or terminate the ESPP at any time without Shareholder approval.

During the year ended December 31, 2021, Named Executive Officers, as a group, and employees did not purchase any Shares pursuant to the Employee Share Purchase Plan.

### Equity Compensation Plan Information

The following table sets forth certain details as at the end of the year ended December 31, 2021 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 (a)	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)) <sup>(1)</sup>
Equity compensation plans approved by security holders	15,109,838	4.61	5,447,790
Equity compensation plans not approved by security holders	-	-	-
<b>Total</b>	<b>15,109,838</b>	<b>4.61</b>	<b>5,447,790</b>

1. Includes share option awards, RSUs, and Dividend Equivalents that may be awarded under our 2021 Stock Incentive Plan, Share Option Plan and ESPP as at December 31, 2021. Does not include additional shares whose issuance is subject to shareholder approval under Proposal 3.

### Annual Burn Rate

The following table provides the annual burn rate associated with the 2021 Stock Incentive Plan for the year ended December 31, 2021 and the Share Option Plan for each of the Corporation’s three most recent fiscal years:

Equity Compensation Plan	Fiscal year	Number of securities granted under the plan <sup>(1)</sup>	Weighted average number of securities outstanding <sup>(2)</sup>	Annual burn rate <sup>(3)</sup>
2021 Stock Incentive Plan	2021	1,503,000	89,086,199	1.69%
Share Option Plan	2021	3,155,750	89,086,199	3.54%
	2020	6,361,834	81,836,545	7.77%
	2019	2,160,050	50,158,936	4.31%

(1) Corresponds to the number of securities granted under the plan in the applicable fiscal year.

(2) The weighted average number of securities outstanding during the period corresponds to the number of securities outstanding at the beginning of the period, adjusted by the number of securities repurchased or issued during the period, and multiplied by a time-weighting factor.

(3) The annual burn rate percent corresponds to the number of securities granted under the plan divided by the weighted average number of securities outstanding.

## 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, 2021, 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 RELATED PERSONS IN TRANSACTIONS

For the last two completed fiscal years, no director, proposed director, executive officer, or immediate family member of a director, proposed director or executive officer nor, to the knowledge of our directors or executive officers, after having made reasonable inquiry, any person or company who beneficially owns, directly or indirectly, Shares carrying more than 5% of the voting rights attached to all Shares outstanding at the date hereof, or any immediate family member thereof, had any material interest, direct or indirect, in any transaction or proposed transaction of the Corporation which involves an amount exceeding the lesser of \$120,000 or one percent of the average of the Corporation's total assets at year-end for the last two completed fiscal years.

---

60

---

## HOUSEHOLDING OF ANNUAL PROXY MATERIALS

Some banks, brokers and other nominee record holders may be participating in the practice of "householding" proxy statements and annual reports. This means that only one copy of our Notice of Internet Availability of Proxy Materials, proxy materials or annual report to Shareholders may have been sent to multiple Shareholders in each household unless otherwise instructed by such Shareholders. We will deliver promptly a separate copy of these documents to any Shareholder upon written or oral request to our Chairman, President and Chief Executive Officer at Aptose Biosciences Inc., Suite 120, 12770 High Bluff Drive, San Diego, California, telephone: 858-926-2730. Any Shareholder who wants to receive separate copies of our Notice of Internet Availability of Proxy Materials, proxy materials or annual report to Shareholders in the future, or any Shareholders who is receiving multiple copies and would like to receive only one copy per household, should contact the Shareholder's bank, broker, or other nominee record holder, or the Shareholder may contact us at the above address and phone number.

## 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, 2021 or from January 1, 2022 to the date hereof.

## 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 \$30,000,000. The annual premium payable by the Corporation for directors' and officers' liability insurance for the year ended December 31, 2021 was \$2.1 million.

## 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.

## ADDITIONAL INFORMATION

Additional information relating to us, including our most current Annual Report on Form 10-K (together with documents incorporated therein by reference), our consolidated financial statements for the year ended December 31, 2021, the report of the independent registered public accounting firm thereon, and management's discussion and analysis of our financial condition and results of operations for the year ended December 31, 2021 can be found by accessing the SEC's EDGAR filing database at [www.sec.gov](http://www.sec.gov) and on SEDAR at [www.sedar.com](http://www.sedar.com). Copies of those documents are available upon written request to the Chairman, President and Chief Executive Officer at Aptose Biosciences Inc., Suite 120, 12770 High Bluff Drive, San Diego, California, free of charge to our securityholders. Our financial information is provided in our consolidated financial statements for the year ended December 31, 2021 and management's discussion and analysis of our financial condition and results of operations for the year ended December 31, 2021.

---

61

---

## DIRECTORS' APPROVAL

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

(signed) William G. Rice, Ph.D.  
Chairman, President and Chief Executive Officer  
April 19, 2021

## APPENDIX A

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**”), applicable United States securities laws, the rules and regulations of the applicable stock exchanges (including, without limitation, Nasdaq Listing Rule 5605(a)(2)) and any other laws applicable to the Corporation. The Board shall affirmatively determine the independence of each director. 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. The Corporation will have, or explain why it does not have, at least two directors of the Board who are Diverse, including (i) at least one Diverse director who self-identifies as Female; and (ii) at least one Diverse director who self-identifies as an Underrepresented Minority or LGBTQ+. Capitalized but undefined terms used in this paragraph have the meanings given to them in Nasdaq Listing Rule 5605(f).
3. 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

64

---

- (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;

65

---

- (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.

## APPENDIX B

**APTOSE BIOSCIENCES INC.  
2021 STOCK INCENTIVE PLAN, AS AMENDED**

**Section 1. Purpose**

The purpose of the Plan is to promote the interests of the Company and its shareholders by aiding the Company in attracting and retaining employees, officers, consultants, advisors, independent contractors and non-employee Directors capable of assuring the future success of the Company, to offer such persons incentives to put forth maximum efforts for the success of the Company's business and to compensate such persons through stock-based awards and provide them with opportunities for stock ownership in the Company, thereby aligning the interests of such persons with the Company's shareholders.

**Section 2. Definitions**

As used in the Plan, the following terms shall have the meanings set forth below:

- (a) "Affiliate" shall mean any entity that, directly or indirectly through one or more intermediaries, is controlled by the Company.
- (b) "Award" shall mean any Option, Stock Appreciation Right, Restricted Stock, Restricted Stock Unit or Dividend Equivalent granted under the Plan.
- (c) "Award Agreement" shall mean any written agreement, contract or other instrument or document evidencing an Award granted under the Plan (including a document in an electronic medium) executed in accordance with the requirements of Section 9(b).
- (d) "Board" shall mean the Board of Directors of the Company.
- (e) "Code" shall mean the Internal Revenue Code of 1986, as amended from time to time, and any regulations promulgated thereunder.
- (f) "Committee" means a committee or subcommittee of the Board appointed from time to time by the Board. Notwithstanding the foregoing, if, and to the extent that no Committee exists which has the authority to administer this Plan, the functions of the Committee shall be exercised by the Board and all references herein to the Committee shall be deemed to be references to the Board. The Committee shall be comprised of not less than such number of Directors as shall be required to permit Awards granted under the Plan to qualify under Rule 16b-3, and each member of the Committee shall be a "non-employee director" within the meaning of Rule 16b-3.
- (g) "Common Share" or "Common Shares" shall mean common shares of the Company (or such other securities or property as may become subject to Awards pursuant to an adjustment made under Section 4(c) of the Plan), provided that such class is listed on a securities exchange.

- (h) "Company" shall mean Aptose Biosciences Inc., a corporation incorporated under the laws of Canada and any successor corporation.
- (i) "Director" shall mean a member of the Board.
- (j) "Dividend Equivalent" shall mean any right granted under Section 6(b) of the Plan.
- (k) "Eligible Person" shall mean any employee, officer, non-employee Director, consultant, independent contractor or advisor providing services to the Company or any Affiliate, or any such person to whom an offer of employment or engagement with the Company or any Affiliate is extended. An Eligible Person must be a natural person.
- (l) "Exchange Act" shall mean the Securities Exchange Act of 1934, as amended.
- (m) "Fair Market Value" shall mean the closing price of the Common Shares, as reported on the NASDAQ Stock Market or Toronto Stock Exchange, whichever exchange is designated in the Award Agreement, and any successor securities exchange thereof, or, if the applicable securities exchange is not open for trading on such date, on the most recent preceding date when such exchange is open for trading. In all other cases, Fair Market Value shall mean the amount which is determined by the Committee, in good faith, to be the fair market value of one Common Share.
- (n) "Incentive Stock Option" shall mean an option granted under Section 6(a) of the Plan that is intended to meet the requirements of Section 422 of the Code or any successor provision.
- (o) "Non-Qualified Stock Option" shall mean an option granted under Section 6(a) of the Plan that is not intended to be an Incentive Stock Option.
- (p) "Option" shall mean an Incentive Stock Option or a Non-Qualified Stock Option to purchase Common Shares of the Company.
- (q) "Participant" shall mean an Eligible Person designated to be granted an Award under the Plan.
- (r) "Plan" shall mean the Aptose Biosciences Inc. 2021 Stock Incentive Plan, as amended from time to time.
- (s) "Prior Stock Plans" shall mean the Aptose Biosciences Inc. 2015 Stock Incentive Plan and the Aptose Biosciences Inc. Share Option Plan, as amended from time to time.

(t) “*Restricted Stock*” shall mean any Common Share granted under Section 6(c) of the Plan.

(u) “*Restricted Stock Unit*” shall mean any unit granted under Section 6(c) of the Plan evidencing the right to receive a Common Share (or a cash payment equal to the Fair Market Value of a Common Share) at some future date.

68

(v) “*Rule 16b-3*” shall mean Rule 16b-3 promulgated by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended, or any successor rule or regulation.

(w) “*Section 409A*” shall mean Section 409A of the Code, or any successor provision, and applicable Treasury Regulations and other applicable guidance thereunder.

(x) “*Securities Act*” shall mean the Securities Act of 1933, as amended.

(y) “*Specified Employee*” shall mean a specified employee as defined in Section 409A(a)(2)(B) of the Code or applicable proposed or final regulations under Section 409A, determined in accordance with procedures established by the Company and applied uniformly with respect to all plans maintained by the Company that are subject to Section 409A.

(z) “*TSX Rules*” means the rules of the Toronto Stock Exchange Company Manual relating to changes in the capital structure of listed companies in connection with security based compensation arrangements (currently Section 613), as those rules may be amended, renumbered or reclassified from time to time, or any successors.

(aa) “*Stock Appreciation Right*” shall mean any right granted under Section 6(b) of the Plan.

### **Section 3. Administration**

(a) Power and Authority of the Committee. The Plan shall be administered by the Committee. Subject to the express provisions of the Plan and to applicable law, the Committee shall have full power and authority to: (i) designate Participants and grant Awards; (ii) determine the type or types of Awards to be granted to each Participant under the Plan; (iii) determine the number of Common Shares to be covered by (or the method by which payments or other rights are to be calculated in connection with) each Award; (iv) 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, Common Shares or other amounts payable with respect to any Award; (v) amend the terms and conditions of any Award or Award Agreement, subject to the limitations under Sections 6 and 7; (vi) accelerate the exercisability of any Award or the lapse of any restrictions relating to any Award, subject to the limitations of Sections 6 and 7; (vii) determine whether, to what extent and under what circumstances Awards may be exercised in cash, Common Shares, other securities, other Awards or other property (but excluding promissory notes), or canceled, forfeited or suspended; (viii) determine whether, to what extent and under what circumstances amounts payable with respect to an Award under the Plan shall be deferred either automatically or at the election of the holder thereof or the Committee, subject to the requirements of Section 409A; (ix) interpret and administer the Plan and any instrument or agreement, including an Award Agreement, relating to the Plan; (x) establish, amend, suspend or waive such rules and regulations and appoint such agents as it shall deem appropriate for the proper administration of the Plan; (xi) make any other determination and take any other action that the Committee deems necessary or desirable for the administration of the Plan; and (xii) adopt such modifications, rules, procedures and sub-plans as may be necessary or desirable to comply with provisions of the laws of non-U.S. or Canadian jurisdictions in which the Company or an Affiliate may operate, including, without limitation, establishing any special rules for Affiliates, Eligible Persons or Participants located in any particular country, in order to meet the objectives of the Plan and to ensure the viability of the intended benefits of Awards granted to Participants located in such non-United States jurisdictions. Any sub-plan established hereunder shall be deemed a part of the Plan, except to the extent of any inconsistency between the terms of the Plan and the terms of such sub-plan, in which event the terms of such sub-plan shall prevail. Each sub-plan shall apply only to the Eligible Persons in the jurisdiction for which the sub-plan was designed. Unless otherwise expressly provided in the Plan, all designations, determinations, interpretations and other decisions under or with respect to the Plan or any Award or Award Agreement shall be within the sole discretion of the Committee, may be made at any time and shall be final, conclusive and binding upon any Participant, any holder or beneficiary of any Award or Award Agreement, and any employee of the Company or any Affiliate.

69

(b) Delegation. The Committee may delegate to one or more officers or Directors of the Company, subject to such terms, conditions and limitations as the Committee may establish in its sole discretion, the authority to grant Awards; provided, however, that the Committee shall not delegate such authority (i) with regard to grants of Awards to be made to officers or directors of the Company or (ii) in such a manner as would contravene applicable law or applicable exchange rules.

(c) Power and Authority of the Board. Notwithstanding anything to the contrary contained herein, the Board may, at any time and from time to time, without any further action of the Committee, exercise all the powers and duties of the Committee under the Plan, unless the exercise of such powers and duties by the Board would cause the Plan not to comply with the requirements of Rule 16b-3; and only the Committee (or another committee of the Board comprised of directors who qualify as independent directors within the meaning of the independence rules of any applicable securities exchange where the Common Shares are then listed) may grant Awards to Directors who are not also employees of the Company or an Affiliate.

(d) Indemnification. To the full extent permitted by law, (i) no member of the Board, the Committee or any person to whom the Committee delegates authority under the Plan shall be liable for any action or determination taken or made in good faith with respect to the Plan or any Award made under the Plan, and (ii) the members of the Board, the Committee and each person to whom the Committee delegates authority under the Plan shall be entitled to indemnification and reimbursement by the Company with regard to such actions and determinations in accordance with applicable law in the manner provided in the Company’s by-laws and any indemnification agreements as they may be amended from time to time. The provisions of this paragraph shall be in addition to such other rights of indemnification as a member of the Board, the Committee or any other person may have by virtue of such person’s position with the Company.

70

### **Section 4. Common Shares Available for Awards**



(a) Common Shares Available. Subject to adjustment as provided in Section 4(c) of the Plan, the aggregate number of Common Shares that may be issued under all Awards under the Plan shall equal:

- (i) 9,343,242 Common Shares of which all of the Common Shares may be granted as Incentive Stock Options, plus
- (ii) any Common Shares subject to any outstanding award under the Prior Stock Plans that, on and after the date shareholders approve the Plan, are not purchased or are forfeited, paid in cash or reacquired by the Company (subject to the limitations in Section 4(b) below), or otherwise not delivered to the Participant due to termination or cancellation of such award.

On and after stockholder approval of this Plan, no awards shall be granted under the Prior Stock Plans, but all outstanding awards previously granted under the Prior Stock Plans shall remain outstanding and subject to the terms of the Prior Stock Plans.

When determining the Common Shares added to and subtracted from the aggregate reserve, the number of Common Shares added or subtracted shall be also determined in accordance with the Common Share counting rules described in Section 4(b) below.

(b) Counting Common Shares. Except as set forth in this Section 4(b) below, if an Award entitles the holder thereof to receive or purchase Common Shares, the number of Common Shares covered by such Award or to which such Award relates shall be counted on the date of grant of such Award against the aggregate number of Common Shares available for granting Awards under the Plan.

- (i) Common Shares Added Back to Reserve. Subject to the limitations in (ii) below, if any Common Shares covered by an Award or to which an Award relates are not purchased or are forfeited or are reacquired by the Company, or if an Award otherwise terminates or is cancelled without delivery of any Common Shares, then the number of Common Shares counted against the aggregate number of Common Shares available under the Plan with respect to such Award, to the extent of any such forfeiture, reacquisition by the Company, termination or cancellation, shall again be available for granting Awards under the Plan.
- (ii) Common Shares Not Added Back to Reserve. Notwithstanding anything to the contrary in (i) above, the following Common Shares will not again become available for issuance under the Plan: (A) any Common Shares which would have been issued upon any exercise of an Option but for the fact that the exercise price was paid by a "net exercise" or any Common Shares tendered in payment of the exercise price of an Option; (B) any Common Shares withheld by the Company or Common Shares tendered to satisfy any tax withholding obligation with respect to an Award; (C) Common Shares covered by a stock-settled Stock Appreciation Right issued under the Plan that are not issued in connection with settlement in Common Shares upon exercise; or (D) Common Shares that are repurchased by the Company using Option exercise proceeds.

71

- (iii) Cash-Only Awards. Awards that do not entitle the holder thereof to receive or purchase Common Shares shall not be counted against the aggregate number of Common Shares available for Awards under the Plan.
- (iv) Substitute Awards Relating to Acquired Entities. Common Shares issued under Awards granted in substitution for awards previously granted by an entity that is acquired by or merged with the Company or an Affiliate shall not be counted against the aggregate number of Common Shares available for Awards under the Plan.

(c) Adjustments. In the event that any dividend (other than a regular cash dividend) or other distribution (whether in the form of cash, Common Shares, other securities or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase or exchange of Common Shares or other securities of the Company, issuance of warrants or other rights to purchase Common Shares or other securities of the Company or other similar corporate transaction or event affects the Common Shares such that an adjustment is necessary in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan, then the Committee shall, in accordance with applicable law and in such manner as it may deem equitable, adjust any or all of (i) the number and type of Common Shares (or other securities or other property) that thereafter may be made the subject of Awards, and (ii) the number and type of Common Shares (or other securities or other property) subject to outstanding Awards.

(d) Individual Limitations Under the Plan. The limitation contained in this Section 4(d) shall apply only with respect to any Award or Awards granted under this Plan, and limitations on awards granted under any other shareholder-approved incentive plan maintained by the Company will be governed solely by the terms of such other plan.

- (i) Annual Limit on Awards Granted to Non-Employee Directors. Notwithstanding any provision to the contrary in the Plan, the sum of the grant date fair value of equity-based Awards (such value computed as of the date of grant in accordance with applicable financial accounting rules) and the amount of any cash-based compensation granted to a non-employee Director during any calendar year shall not exceed \$500,000. The independent members of the Board may make exceptions to this limit for a non-executive chair of the Board, provided that the non-employee Director receiving such additional compensation may not participate in the decision to award such compensation.

72

## **Section 5. Eligibility**

Any Eligible Person shall be eligible to be designated as a Participant. In determining which Eligible Persons shall receive an Award and the terms of any Award, the Committee may take into account the nature of the services rendered by the respective Eligible Persons, their present and potential contributions to the success of the Company or such other factors as the Committee, in its discretion, shall deem relevant. Notwithstanding the foregoing, an Incentive Stock Option may only be granted to full-time or part-time employees (which term as used herein includes, without limitation, officers and Directors who are also employees) who are subject to taxation in the United States, and an Incentive Stock Option shall not be granted to an employee of an Affiliate unless such Affiliate is also a "subsidiary corporation" of the Company within the meaning of Section 424(f) of the Code or any successor provision.

## **Section 6. Awards**

(a) Options. The Committee is hereby authorized to grant Options to Eligible Persons with the following terms and conditions and with such additional terms and conditions not inconsistent with the provisions of the Plan as the Committee shall determine:

- (i) Exercise Price. The purchase price per Common Share purchasable under an Option shall be determined by the Committee and shall not be less than one hundred percent (100%) of the Fair Market Value of a Common Share on the date of grant of such Option; *provided, however*, that the Committee may, subject to applicable law, designate a purchase price below Fair Market Value on the date of grant if the Option is granted in substitution for a stock option previously granted by an entity that is acquired by or merged with the Company or an Affiliate.
- (ii) Option Term. The term of each Option shall be fixed by the Committee at the date of grant but shall not be longer than 10 years from the date of grant.

- (iii) Time and Method of Exercise. The Committee shall determine the time or times at which an Option may be exercised within the Option term (subject to the exercise provisions in Section 6), either in whole or in part, and the method of exercise, except that any exercise price tendered shall be in either cash, wire transfer of immediately available funds, Common Shares having a Fair Market Value on the exercise date equal to the applicable exercise price or a combination thereof, as determined by the Committee and as provided in an Award Agreement.
- (A) Promissory Notes. For avoidance of doubt, the Committee may not accept a promissory note as consideration.
- (B) Net Exercises. The terms of any Option may be written to permit, (i) delivery of a written or electronic notice that the Participant has placed a market sell order with a broker acceptable to the Company with respect to Common Shares then issuable upon exercise of the Option, and that the broker has been directed to pay a sufficient portion of the net proceeds of the sale to the Company in satisfaction of the aggregate exercise price; *provided* that payment of such proceeds is then made to the Company upon settlement of such sale, or (ii) except in the case of Options issued to Participants subject to taxation in Canada, the Option to be exercised by delivering to the Participant a number of Common Shares having an aggregate Fair Market Value (determined as of the date of exercise) equal to the excess, if any, of the Fair Market Value of the Common Shares underlying the Option being exercised, on the date of exercise, over the exercise price of the Option for such Common Shares.

---

73

- (iv) Incentive Stock Options. Notwithstanding anything in the Plan to the contrary, the following additional provisions shall apply to the grant of stock options which are intended to qualify as Incentive Stock Options to Eligible Participants who are subject to taxation in the United States:
- (A) Each Option will be designated, in writing, as an Incentive Stock Option or Non-Qualified Stock Option at the time of grant; *provided*, however, that if an Option is not so designated or if an Option designated as an Incentive Stock Option fails to qualify as an Incentive Stock Option, then such Option will be a Non-Qualified Stock Option, and the Common Shares purchased upon exercise of each type of Option will be separately accounted for.
- (B) To the extent that the aggregate Fair Market Value (determined at the time of grant) of the Common Shares with respect to which Incentive Stock Options are exercisable for the first time by any Participant during any calendar year (under all plans of the Company and any Affiliates) exceeds \$100,000 (or such other limit established in the Code) or otherwise does not comply with the rules governing Incentive Stock Options, the Options or portions thereof that exceed such limit (according to the order in which they were granted) or otherwise do not comply with such rules will be treated as Non-Qualified Stock Options, notwithstanding any contrary provision of the applicable Award Agreement(s).
- (C) All Incentive Stock Options must be granted within ten years from the date on which this Plan was approved by the shareholders of the Company.
- (D) Unless sooner exercised, all Incentive Stock Options shall expire and no longer be exercisable no later than ten (10) years after the date of grant; *provided, however*, that in the case of a grant of an Incentive Stock Option to a Participant who, at the time such Option is granted, owns (within the meaning of Section 422 of the Code) stock possessing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or of its Affiliates, such Incentive Stock Option shall expire and no longer be exercisable no later than five (5) years from the date of grant.

---

74

- (E) The purchase price per Common Share for an Incentive Stock Option shall be not less than one hundred percent (100%) of the Fair Market Value of a Common Share on the date of grant of the Incentive Stock Option; *provided, however*, that, in the case of the grant of an Incentive Stock Option to a Participant who, at the time such Option is granted, owns (within the meaning of Section 422 of the Code) stock possessing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or of its Affiliates, the purchase price per Common Share purchasable under an Incentive Stock Option shall be not less than one hundred ten percent (110%) of the Fair Market Value of a Common Share on the date of grant of the Incentive Stock Option.
- (F) Any Incentive Stock Option authorized under the Plan shall contain such other provisions as the Committee shall deem advisable, but shall in all events be consistent with and contain all provisions required in order to qualify the Option as an Incentive Stock Option.

(b) Stock Appreciation Rights. The Committee is hereby authorized to grant Stock Appreciation Rights to Eligible Persons subject to the terms of the Plan and any applicable Award Agreement. A Stock Appreciation Right granted under the Plan shall confer on the holder thereof a right to receive upon exercise thereof the excess of (i) the Fair Market Value of one Common Share on the date of exercise over (ii) the grant price of the Stock Appreciation Right as specified by the Committee, which price shall not be less than one hundred percent (100%) of the Fair Market Value of one Common Share on the date of grant of the Stock Appreciation Right; *provided, however*, that subject to applicable law, the Committee may designate a grant price below Fair Market Value on the date of grant if the Stock Appreciation Right is granted in substitution for a stock appreciation right previously granted by an entity that is acquired by or merged with the Company or an Affiliate. Subject to the terms of the Plan and any applicable Award Agreement, the grant price, term, methods of exercise, dates of exercise, methods of settlement and any other terms and conditions of any Stock Appreciation Right shall be as determined by the Committee (except that the term of each Stock Appreciation Right shall be subject to the term limitation in Section 6(a)(ii) applicable to Options). The Committee may impose such conditions or restrictions on the exercise of any Stock Appreciation Right as it may deem appropriate. (c) Restricted Stock and Restricted Stock Units. The Committee is hereby authorized to grant an Award of Restricted Stock and Restricted Stock Units to Eligible Persons with the following terms and conditions and with such additional terms and conditions not inconsistent with the provisions of the Plan as the Committee shall determine:

---

75

- (i) Restrictions. Common Shares of Restricted Stock and Restricted Stock Units shall be subject to such restrictions as the Committee may impose (including, without limitation, any limitation on the right to vote a Common Share of Restricted Stock or the right to receive any dividend or other right or property with respect thereto), which restrictions may lapse separately or in combination at such time or times, in such installments or otherwise as the Committee may deem appropriate. For purposes of clarity and without limiting the Committee's general authority under Section 3(a), vesting of such Awards may, at the Committee's discretion, be conditioned upon the Participant's completion of a specified period of service with the Company or an Affiliate, or upon the achievement of one or more performance goals established by the Committee, or upon any combination of service-based and performance-based conditions (subject to the minimum requirements in Section 6). Notwithstanding the foregoing, rights to dividend or Dividend Equivalent payments shall be subject to the limitations described in Section 6(d).

- (ii) Issuance and Delivery of Common Shares. Any Restricted Stock granted under the Plan shall be issued at the time such Awards are granted and may be evidenced in such manner as the Committee may deem appropriate, including book-entry registration or issuance of a stock certificate or certificates, which certificate or certificates shall be held by the Company or held in nominee name by the stock transfer agent or brokerage service selected by the Company to provide such services for the Plan. Common Shares representing Restricted Stock that are no longer subject to restrictions shall be delivered (including by updating the book-entry registration) to the Participant promptly after the applicable restrictions lapse or are waived. In the case of Restricted Stock Units, no Common Share shall be issued at the time such Awards are granted. Upon the lapse or waiver of restrictions and the restricted period relating to Restricted Stock Units evidencing the right to receive Common Shares, such Common Shares shall be issued and delivered to the holder of the Restricted Stock Units.

(d) Dividend Equivalents. The Committee is hereby authorized to grant Dividend Equivalents to Eligible Persons under which the Participant shall be entitled to receive payments (net of any applicable withholding tax and on terms and subject to conditions established and determined by and in the discretion of the Committee) equivalent to and in lieu of the amount of cash dividends paid by the Company to holders of Common Shares with respect to a number of Common Shares determined by the Committee. Subject to the terms of the Plan and any applicable Award Agreement, such Dividend Equivalents may have such terms and conditions as the Committee shall determine. Notwithstanding the foregoing, (i) the Committee may not grant Dividend Equivalents to Eligible Persons in connection with grants of Options and Stock Appreciation Rights and (ii) dividend and Dividend Equivalent amounts with respect to any Common Share underlying Restricted Stock or Restricted Stock Unit Award may be accrued but not paid to a Participant until all conditions or restrictions relating to such Common Share have been satisfied, waived or lapsed.

---

76

(e) General.

- (i) Consideration for Awards. Awards may be granted for no cash consideration or for any cash or other consideration as may be determined by the Committee or required by applicable law.
- (ii) Awards May Be Granted Separately or Together. Awards may, in the discretion of the Committee, be granted either alone or in addition to, in tandem with or in substitution for any other Award or any award granted under any other plan of the Company or any Affiliate. Awards granted in addition to or in tandem with other Awards or in addition to or in tandem with awards granted under any other plan of the Company or any Affiliate may be granted either at the same time as or at a different time from the grant of such other Awards or awards.
- (iii) Limits on Transfer of Awards. No Award (other than fully vested and unrestricted Common Shares issued pursuant to any Award) and no right under any such Award shall be transferable by a Participant other than by will or by the laws of descent and distribution, and no Award (other than fully vested and unrestricted Common Shares issued pursuant to any Award) or right under any such Award may be pledged, alienated, attached or otherwise encumbered, and any purported pledge, alienation, attachment or encumbrance thereof shall be void and unenforceable against the Company or any Affiliate. Notwithstanding the foregoing, subject to applicable laws, the Committee may permit the transfer of an Award to family members if such transfer is for no value and in accordance with the rules of Form S-8. Subject to applicable law, the Committee may also establish procedures as it deems appropriate for a Participant to designate a person or persons, as beneficiary or beneficiaries, to exercise the rights of the Participant and receive any property distributable with respect to any Award in the event of the Participant's death.
- (iv) Restrictions; Securities Exchange Listing. All Common Shares or other securities delivered under the Plan pursuant to any Award shall be subject to such restrictions as the Committee may deem advisable under the Plan, applicable federal, provincial or state securities laws and regulatory requirements, and the Committee may cause appropriate entries to be made with respect to, or legends to be placed on the certificates for, such Common Shares or other securities to reflect such restrictions. The Company shall not be required to deliver any Common Shares or other securities covered by an Award unless and until the requirements of any federal, provincial or state securities or other laws, rules or regulations (including the rules of any securities exchange) as may be determined by the Company to be applicable are satisfied.

---

77

- (v) Section 409A Provisions. Notwithstanding anything in the Plan or any Award Agreement to the contrary, to the extent that any amount or benefit that constitutes "deferred compensation" to a Participant under Section 409A and applicable guidance thereunder is otherwise payable or distributable to a Participant under the Plan or any Award Agreement solely by reason of the occurrence of a change in control or due to the Participant's disability or "separation from service" (as such term is defined under Section 409A), such amount or benefit will not be payable or distributable to the Participant by reason of such circumstance unless the Committee determines in good faith that (i) the circumstances giving rise to such change in control event, disability or separation from service meet the definition of a change in control event, disability, or separation from service, as the case may be, in Section 409A(a)(2)(A) of the Code and applicable proposed or final regulations, or (ii) the payment or distribution of such amount or benefit would be exempt from the application of Section 409A by reason of the short-term deferral exemption or otherwise. Any payment or distribution that otherwise would be made to a Participant who is a Specified Employee (as determined by the Committee in good faith) on account of separation from service may not be made before the date which is six months after the date of the Specified Employee's separation from service (or if earlier, upon the Specified Employee's death) unless the payment or distribution is exempt from the application of Section 409A by reason of the short-term deferral exemption or otherwise.
- (vi) Prohibition on Option and Stock Appreciation Right Repricing. Except as provided in Section 4(c) hereof, the Committee may not, without prior approval of the Company's shareholders, seek to effect any re-pricing of any previously granted, "underwater" Option or Stock Appreciation Right by: (i) amending or modifying the terms of the Option or Stock Appreciation Right to lower the exercise price; (ii) canceling the underwater Option or Stock Appreciation Right and granting either (A) replacement Options or Stock Appreciation Rights having a lower exercise price; or (B) Restricted Stock, Restricted Stock Units or Other Stock-Based Award in exchange; or (iii) cancelling or repurchasing the underwater Option or Stock Appreciation Right for cash or other securities. An Option or Stock Appreciation Right will be deemed to be "underwater" at any time when the Fair Market Value of the Common Shares covered by such Option or Stock Appreciation Right is less than the exercise price.
- (vii) Limits on Acceleration or Waiver of Restrictions Upon Change in Control. No Award Agreement shall contain a definition of change in control that has the effect of accelerating the exercisability of any Award or the lapse of restrictions relating to any Award upon only the announcement or shareholder approval of (rather than consummation of) any reorganization, merger or consolidation of, or sale or other disposition of all or substantially all of the assets of, the Company.

---

78

**Section 7. Amendment and Termination; Corrections**

(a) Amendments to the Plan and Awards. The Board may from time to time amend, suspend or terminate this Plan or any Award Agreement, and the Committee may amend the terms of any previously granted Award, provided that no amendment to the terms of any previously granted Award may, (except as expressly

provided in the Plan) materially and adversely alter or impair the terms or conditions of the Award previously granted to a Participant under this Plan without the written consent of the Participant or holder thereof. Any amendment to this Plan, an Award Agreement or to the terms of any Award previously granted, is subject to compliance with all applicable laws, rules, regulations and policies of any applicable governmental entity or securities exchange, including receipt of any required approval from the governmental entity or stock exchange. For greater certainty and without limiting the foregoing, the Board may amend, suspend, terminate or discontinue the Plan or any Award Agreement, and the Committee may amend or alter any previously granted Award, as applicable, without obtaining the approval of shareholders of the Company in order to:

- (i) correct any defect, supply any omission or reconcile any inconsistency in the Plan 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 Plan;
- (ii) amend the eligibility for, and limitations or conditions imposed upon, participation in the Plan;
- (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 (including amendments to Awards necessary or desirable to maximize any available tax deduction or to avoid any adverse tax results, and no action taken to comply with such laws, rules, regulations and policies shall be deemed to impair or otherwise adversely alter or impair the rights of any holder of an Award or beneficiary thereof);
- (iv) amend any terms relating to the administration of the Plan, including the terms of any administrative guidelines or other rules related to the Plan; or
- (v) make any other amendment, whether fundamental or otherwise, not requiring shareholders' approval under TSX Rules, the rules or regulations of the Securities and Exchange Commission or any other securities exchange that are applicable to the Company.

For greater certainty, prior approval of the shareholders of the Company shall be required for any amendment to the Plan or an Award that would:

79

---

- (I) require shareholder approval under TSX Rules, the rules or regulations of the Securities and Exchange Commission or any other securities exchange that are applicable to the Company;
- (II) increase the number of shares authorized under the Plan as specified in Section 4(a) of the Plan;
- (III) permit repricing of Options or Stock Appreciation Rights, which is currently prohibited by Section 6 of the Plan;
- (IV) permit the award of Options or Stock Appreciation Rights at a price less than one-hundred percent (100%) of the Fair Market Value of a Common Share on the date of grant of such Option or Stock Appreciation Right, contrary to the provisions of Section 6(a)(i) and Section 6(b) of the Plan;
- (V) increase the maximum term permitted for Options and Stock Appreciation Rights as specified in Section 6(a) and Section 6(b); or
- (VI) increase the number of shares or dollar value subject to the annual limitations contained in Section 4(d) of the Plan.

(b) **Corporate Transactions.** In the event of any reorganization, merger, consolidation, split-up, spin-off, combination, plan of arrangement, take-over bid or tender offer, repurchase or exchange of Common Shares or other securities of the Company or any other similar corporate transaction or event involving the Company, the Committee or the Board may, in its sole discretion, provide for any of the following at the election of the applicable Participant but subject to the approval of the Board or the Committee, as the case may be, to be effective upon the consummation of the event (or effective immediately prior to the consummation of the event, provided that the consummation of the event subsequently occurs), and no action taken under this Section 7(b) shall be deemed to impair or otherwise adversely alter or impair the rights of any holder of an Award or beneficiary thereof:

- (i) either (A) termination of any Award, whether or not vested, in exchange for an amount of cash and/or other property, if any, equal to the amount that would have been attained upon the exercise of the vested portion of the Award or realization of the Participant's vested rights (and, for the avoidance of doubt, if, as of the date of the occurrence of the transaction or event described in this Section 7(b)(i)(A), the Committee or the Board determines in good faith that no amount would have been attained upon the exercise of the Award or realization of the Participant's rights, then the Award may be terminated by the Company without any payment) or (B) the replacement of the Award with other rights or property selected by the Committee or the Board, in its sole discretion;
- (ii) that the Award be assumed by the successor or survivor corporation, or a parent or subsidiary thereof, or shall be substituted for by similar options, rights or awards covering the stock of the successor or survivor corporation, or a parent or subsidiary thereof, with appropriate adjustments as to the number and kind of shares and prices;

80

---

- (iii) that the Award shall be exercisable or payable or fully vested with respect to all Common Shares covered thereby, notwithstanding anything to the contrary in the applicable Award Agreement; or
- (iv) that the Award cannot vest, be exercised or become payable after a date certain in the future, which may be the effective date of the event.

## **Section 8. Income Tax Withholding and Tax Treatment**

(a) **Income Tax Withholding.** In order to comply with all applicable federal, state, provincial, local or foreign income tax laws or regulations, the Company may take such action as it deems appropriate to ensure that all applicable federal, state, provincial, local or foreign payroll, withholding, income or other amounts and taxes, which are the sole and absolute responsibility of a Participant, are withheld or collected from such Participant. Without limiting the foregoing, for avoidance of doubt, the Committee, in its discretion and subject to such additional terms and conditions as it may adopt, may permit the Participant to satisfy such tax obligation by (a) electing to have the Company withhold a portion of the Common Shares otherwise to be delivered upon exercise or receipt of (or the lapse of restrictions relating to) such Award with a Fair Market Value equal to the amount of such taxes (subject to any limitations required by ASC Topic 718 to avoid adverse accounting treatment) and by the Company selling, or causing a broker to sell, on behalf of the Participant such Common Shares in the open market and use the proceeds from such sale to satisfy the amount of such taxes; (b) delivering to the Company Common Shares other than Common Shares issuable upon exercise or receipt of (or the lapse of restrictions relating to) such Award with a Fair Market Value equal to the amount of such taxes or (c) by any other means set forth in the applicable Award Agreement. For greater certainty, it is the responsibility of the Participant to complete and file any tax returns that may be required under applicable laws within the periods specified in those laws as a result of the Participant's participation in the Plan or any Award. Notwithstanding any other provision of this Plan, a Participant shall be solely responsible for all tax withholding obligations arising as a result of the Participant's participation in the Plan or any Award.

(b) **No Guarantees Regarding Tax Treatment** Participants (and their beneficiaries) shall be responsible for all taxes with respect to any Award under the Plan. The Company, the Board and the Committee make no guarantees to any Person regarding the tax treatment in respect of the Awards or payments made under the Plan.

(c) Other Tax Matters. Each Option granted to a Participant who is a Canadian taxpayer will be construed and administered such that, in the reasonable good-faith determination of the Committee, the Participant qualifies for a deduction under paragraph 110(1)(d) of the Income Tax Act (Canada). Notwithstanding the foregoing, in no event will the Company, the Board or the Committee have any liability.

81

---

## Section 9. General Provisions

(a) No Rights to Awards. No Eligible Person, Participant or other person shall have any claim to be granted any Award under the Plan, and there is no obligation for uniformity of treatment of Eligible Persons, Participants or holders or beneficiaries of Awards under the Plan. The terms and conditions of Awards need not be the same with respect to any Participant or with respect to different Participants.

(b) Award Agreements. No Participant shall have rights under an Award granted to such Participant unless and until an Award Agreement shall have been signed by the Participant (if requested by the Company), or until such Award Agreement is delivered and accepted through an electronic medium in accordance with procedures established by the Company. An Award Agreement need not be signed by a representative of the Company unless required by the Committee. Each Award Agreement shall be subject to the applicable terms and conditions of the Plan and any other terms and conditions (not inconsistent with the Plan) determined by the Committee. The Committee, in its sole discretion, may include such further provisions and limitations in any Award Agreement, as it may deem equitable and in the best interests of the Company that are not inconsistent with the provisions of the Plan.

(c) Plan Provisions Control. In the event that any provision of an Award Agreement conflicts with or is inconsistent in any respect with the terms of the Plan as set forth herein or subsequently amended, the terms of the Plan shall control.

(d) No Rights of Shareholders. Except with respect to Common Shares issued under Awards (and subject to such conditions as the Committee may impose on such Awards), neither a Participant nor the Participant's legal representative shall be, or have any of the rights and privileges of, a shareholder of the Company with respect to any Common Shares issuable upon the exercise or payment of any Award, in whole or in part, unless and until such Common Shares have been issued.

(e) No Limit on Other Compensation Arrangements. Nothing contained in the Plan shall prevent the Company or any Affiliate from adopting or continuing in effect other or additional compensation plans or arrangements, and such plans or arrangements may be either generally applicable or applicable only in specific cases.

(f) No Right to Employment or Directorship. The grant of an Award shall not be construed as giving a Participant the right to be retained as an employee of the Company or any Affiliate, or the right to be retained as a Director, nor will it affect in any way the right of the Company or an Affiliate to terminate a Participant's employment at any time, with or without cause, or remove a Director in accordance with applicable law. In addition, the Company or an Affiliate may at any time dismiss a Participant from employment, or remove a Director who is a Participant, free from any liability or any claim under the Plan or any Award, unless otherwise expressly provided in the Plan or in any Award Agreement. Nothing in this Plan shall confer on any person any legal or equitable right against the Company or any Affiliate, directly or indirectly, or give rise to any cause of action at law or in equity against the Company or an Affiliate. Under no circumstances shall any person ceasing to be an employee or Director of the Company or any Affiliate be entitled to any compensation for any loss of any right or benefit under the Plan which such employee or Director might otherwise have enjoyed but for termination of employment or directorship, whether such compensation is claimed by way of damages for wrongful or unfair dismissal, breach of contract or otherwise. By participating in the Plan, each Participant shall be deemed to have accepted all the conditions of the Plan and the terms and conditions of any rules and regulations adopted by the Committee and shall be fully bound thereby.

82

(g) Governing Law. The internal law, and not the law of conflicts, of the Province of Ontario shall govern all questions concerning the validity, construction and effect of the Plan or any Award, and any rules and regulations relating to the Plan or any Award.

(h) Severability. If any provision of the Plan or any Award is or becomes or is deemed to be invalid, illegal or unenforceable in any jurisdiction or would disqualify the Plan or any Award under any law deemed applicable by the Committee, such provision shall be construed or deemed amended to conform to applicable laws, or if it cannot be so construed or deemed amended without, in the determination of the Committee, materially altering the purpose or intent of the Plan or the Award, such provision shall be stricken as to such jurisdiction or Award, and the remainder of the Plan or any such Award shall remain in full force and effect.

(i) No Trust or Fund Created. Neither the Plan nor any Award shall create or be construed to create a trust or separate fund of any kind or a fiduciary relationship between the Company or any Affiliate and a Participant or any other person. To the extent that any person acquires a right to receive payments from the Company or any Affiliate pursuant to an Award, such right shall be no greater than the right of any unsecured general creditor of the Company or any Affiliate.

(j) Other Benefits. No compensation or benefit awarded to or realized by any Participant under the Plan shall be included for the purpose of computing such Participant's compensation or benefits under any pension, retirement, savings, profit sharing, group insurance, disability, severance, termination pay, welfare or other benefit plan of the Company, unless required by law or otherwise provided by such other plan.

(k) No Fractional Common Shares. No fractional Common Shares shall be issued or delivered pursuant to the Plan or any Award, and the Committee shall determine whether cash shall be paid in lieu of any fractional Common Share or whether such fractional Common Share or any rights thereto shall be canceled, terminated or otherwise eliminated.

(l) Clawback and Recoupment. All Awards under this Plan shall be subject to forfeiture or other penalties pursuant to any Company clawback policy, as may be adopted or amended from time to time, and such forfeiture and/or penalty conditions or provisions as determined by the Committee.

(m) Headings. Headings are given to the sections and subsections of the Plan solely as a convenience to facilitate reference. Such headings shall not be deemed in any way material or relevant to the construction or interpretation of the Plan or any provision thereof.

83

---

## Section 10. Effective Date of the Plan

The Plan was adopted by the Board on April 20, 2021 and approved by the shareholders of the Company at the annual and special meeting of shareholders of the Company held on June 1, 2021, and the Plan shall be effective as of the date of such shareholder approval. An amendment to the Plan was approved by the Board on April 19, 2022 and shall be subject to approval by the shareholders of the Company at the annual and special meeting of shareholders of the Company to be held on May 31, 2022.

## Section 11. Term of the Plan

No Award shall be granted under the Plan, and the Plan shall terminate, on the tenth anniversary of the earlier of the date of adoption of the Plan by the Board or date of approval by the Company's shareholders or any earlier date of discontinuation or termination established pursuant to Section 7(a) of the Plan. Unless otherwise expressly provided in the Plan or in an applicable Award Agreement, any Award theretofore granted may extend beyond such dates, and the authority of the Committee provided for hereunder with respect to the Plan and any Awards, and the authority of the Board to amend the Plan, shall extend beyond the termination of the Plan.

LORQ 000001

SAM SAMPLE  
123 SAMPLES STREET  
SAMPLETOWN SS X9X X9X  
CANADA

Security Class  
COMMON SHARES

Holder Account Number  
C9999999999 IND



Fold

## Form of Proxy - Annual and Special Meeting to be held on May 31, 2022

**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 Management Nominees 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 may be required to provide documentation evidencing your power to sign this proxy with signing capacity stated.
3. This proxy should be signed in the exact manner as the name(s) appear(s) on the proxy.
4. If a date is not inserted in the space provided on the reverse of this proxy, it will be deemed to bear the date on which it was mailed to the holder by Management.
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, and the proxy appoints the Management Nominees listed on the reverse, 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. If you have 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 and Management Information Circular or other matters that may properly come before the meeting or any adjournment or postponement thereof, unless prohibited by law.
8. This proxy should be read in conjunction with the accompanying documentation provided by Management.

Fold

**Proxies submitted must be received by 5:00 pm, Eastern Daylight Time, on May 27, 2022.**

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



### To Vote Using the Telephone

- Call the number listed BELOW from a touch tone telephone.

**1-866-732-VOTE (8683) Toll Free**



### To Vote Using the Internet

- Go to the following web site:  
[www.investorvote.com](http://www.investorvote.com)
- Smartphone?  
Scan the QR code to vote now.



### To Receive Documents Electronically

- You can enroll to receive future securityholder communications electronically by visiting [www.investorcentre.com](http://www.investorcentre.com).



### To Virtually Attend the Meeting

- You can attend the meeting virtually by visiting the URL provided on the back of this document.

**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 23456 78901 23456**

LORQ\_PRX\_339416/000001/000001/4



SAM SAMPLE

C9999999999



IND C04

**Appointment of Proxyholder**

I/We being holder(s) of securities of Aptose Biosciences Inc. (the "Corporation") hereby appoint William G. Rice, or failing this person, Denis Burger (the "Management Nominees")

OR

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

Note: If completing the appointment box above YOU MUST go to <http://www.computershare.com/aptose> and provide Computershare with the name and email address of the person you are appointing. Computershare will use this information ONLY to provide the appointee with a user name to gain entry to the online meeting.

as my/our proxyholder with full power of substitution and to attend, act and to vote for and on behalf of the holder in accordance with the following direction (or if no directions have been given, as the proxyholder sees fit) and on all other matters that may properly come before the Annual and Special Meeting of shareholders of the Corporation to be held online at <https://web.lumiagm.com/421602377> on May 31, 2022 at 10:00 am, Pacific Daylight Time (the "Meeting") and at any adjournment or postponement thereof.

VOTING RECOMMENDATIONS ARE INDICATED BY **HIGHLIGHTED TEXT** OVER THE BOXES.

**1. Election of Directors****For** Withhold**For** Withhold**For** Withhold

01. Carol Ashe

☐ ☐

02. Dr. Denis Burger

☐ ☐

03. Dr. Eric Platzer

☐ ☐

04. Dr. William G. Rice

☐ ☐

05. Dr. Mark D. Vincent

☐ ☐

06. Warren Whitehead

☐ ☐
**2. Appointment of Auditors**

Appointment of KPMG, LLP as the independent accounting firm for the Corporation.

**For** Against Abstain
☐ ☐ ☐
**For** Against Abstain
☐ ☐ ☐
**3. Amendment to 2021 Stock Incentive Plan**

Resolution approving an amendment to the Corporation's 2021 stock incentive plan to increase the number of shares available thereunder by 3,000,000 shares.

**For** Against Abstain
☐ ☐ ☐
**4. Say-on-Pay**

Advisory (non-binding) resolution on the compensation of the Corporation's named executive officers.

**For** Against Abstain
☐ ☐ ☐
**Signature of Proxyholder**

Signature(s)

Date

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, and the proxy appoints the Management Nominees, this Proxy will be voted as recommended by Management.**



**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/mailinfo](http://www.computershare.com/mailinfo).



L O R Q

3 3 9 4 1 6

1 P I

A R 2

9 9 9 9





LORQ 000002

SAM SAMPLE  
123 SAMPLES STREET  
SAMPLETOWN SS X9X X9X  
AUSTRALIA

Security Class  
COMMON SHARES

Holder Account Number  
C9999999999 IND



-----  
Fold

## Form of Proxy - Annual and Special Meeting to be held on May 31, 2022

**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 Management Nominees 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 may be required to provide documentation evidencing your power to sign this proxy with signing capacity stated.
3. This proxy should be signed in the exact manner as the name(s) appear(s) on the proxy.
4. If a date is not inserted in the space provided on the reverse of this proxy, it will be deemed to bear the date on which it was mailed to the holder by Management.
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, and the proxy appoints the Management Nominees listed on the reverse, 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. If you have 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 and Management Information Circular or other matters that may properly come before the meeting or any adjournment or postponement thereof, unless prohibited by law.
8. This proxy should be read in conjunction with the accompanying documentation provided by Management.

-----  
Fold

**Proxies submitted must be received by 5:00 pm, Eastern Daylight Time, on May 27, 2022.**

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



### To Vote Using the Telephone

- Call the number listed BELOW from a touch tone telephone.

**312-588-4290 Direct Dial**



### To Vote Using the Internet

- Go to the following web site:  
[www.investorvote.com](http://www.investorvote.com)
- Smartphone?  
Scan the QR code to vote now.



### To Receive Documents Electronically

- You can enroll to receive future securityholder communications electronically by visiting [www.investorcentre.com](http://www.investorcentre.com).



### To Virtually Attend the Meeting

- You can attend the meeting virtually by visiting the URL provided on the back of this document.

**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 23456 78901 23456**

LORQ\_PRX\_339416/000002/000002/6



SAM SAMPLE

C9999999999



IND C04

**Appointment of Proxyholder**

I/We being holder(s) of securities of Aptose Biosciences Inc. (the "Corporation") hereby appoint William G. Rice, or failing this person, Denis Burger (the "Management Nominees")

OR

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

Note: If completing the appointment box above YOU MUST go to <http://www.computershare.com/aptose> and provide Computershare with the name and email address of the person you are appointing. Computershare will use this information ONLY to provide the appointee with a user name to gain entry to the online meeting.

as my/our proxyholder with full power of substitution and to attend, act and to vote for and on behalf of the holder in accordance with the following direction (or if no directions have been given, as the proxyholder sees fit) and on all other matters that may properly come before the Annual and Special Meeting of shareholders of the Corporation to be held online at <https://web.lumiagm.com/421602377> on May 31, 2022 at 10:00 am, Pacific Daylight Time (the "Meeting") and at any adjournment or postponement thereof.

VOTING RECOMMENDATIONS ARE INDICATED BY HIGHLIGHTED TEXT OVER THE BOXES.

**1. Election of Directors**

For	Withhold
-----	----------

For	Withhold
-----	----------

For	Withhold
-----	----------

01. Carol Ashe

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

02. Dr. Denis Burger

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

03. Dr. Eric Platzer

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

04. Dr. William G. Rice

<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"/>
--------------------------	--------------------------

For	Against	Abstain
-----	---------	---------

**2. Appointment of Auditors**

Appointment of KPMG, LLP as the independent accounting firm for the Corporation.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

For	Against	Abstain
-----	---------	---------

**3. Amendment to 2021 Stock Incentive Plan**

Resolution approving an amendment to the Corporation's 2021 stock incentive plan to increase the number of shares available thereunder by 3,000,000 shares.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

For	Against	Abstain
-----	---------	---------

**4. Say-on-Pay**

Advisory (non-binding) resolution on the compensation of the Corporation's named executive officers.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Fold

Fold

**Signature of Proxyholder**

Signature(s)

Date

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, and the proxy appoints the Management Nominees, this Proxy will be voted as recommended by Management.



**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/mailinlist](http://www.computershare.com/mailinlist).



L O R Q

3 3 9 4 1 6

1 P I

A R 2

9 9 9 9

