

AMENDED BY-LAW NO. 2

A by-law relating generally to the transaction of the business and affairs of

Aptose Biosciences Inc.

DIRECTORS

1. Calling of and notice of meetings. Meetings of the board will be held on such day and at such time and place as the Chairman of the Board or the President of the Corporation or any two directors may determine. Notice of meetings of the board will be given to each director not less than 48 hours before the time when the meeting is to be held. Each newly elected board may without notice hold its first meeting for the purposes of organization and the appointment of officers immediately following the meeting of shareholders at which such board was elected.
2. Votes to govern. At all meetings of the board every question will be decided by a majority of the votes cast on the question.
3. Interest of directors and officers generally in contracts. No director or officer will be disqualified by his or her office from contracting with the Corporation nor will any contract or arrangement entered into by or on behalf of the Corporation with any director or officer or in which any director or officer is in any way interested be liable to be voided nor will any director or officer so contracting or being so interested be liable to account to the Corporation for any profit realized by any such contract or arrangement by reason of such director or officer holding that office or of the fiduciary relationship thereby established provided that, in each case, the director or officer has complied with the provisions of the *Canada Business Corporations Act*.

COMMITTEES

4. Committees of Directors. The directors may appoint from among their number one or more committees of directors and delegate to them any of the powers of the directors except those which under the *Canada Business Corporations Act* a committee of directors has no authority to exercise.
5. Transaction of Business. The powers of a committee appointed by the directors may be exercised at a meeting at which a quorum is present or by resolution in writing signed by all members of the committee entitled to vote on that resolution at a meeting of the committee. Meetings of a committee may be held at any place in or outside Canada.
6. Procedure. Unless otherwise determined by the directors each committee shall have power to fix its quorum and to regulate its procedure.

SHAREHOLDERS' MEETINGS

7. Notice of meetings. Notice of the time and place of a meeting of shareholders must be sent to each shareholder entitled to vote at the meeting, to each director and to the auditor of the Corporation not less than twenty-one days nor more than fifty days before the time when the meeting is to be held.

8. Quorum. Except as otherwise provided in the Articles of the Corporation, the quorum for the transaction of business at any meeting of shareholders shall be two persons present at the opening of the meeting who are entitled to vote thereat either as shareholders or as proxy holders and holding or representing not less than 25% of the outstanding shares of the Corporation entitled to be voted at such meeting. If a quorum is not present within such reasonable time (determined by the chair of the meeting) after the time fixed for the holding of the meeting, the persons present and entitled to vote thereat may adjourn the meeting to a fixed time and place. A person participating in a meeting by means of telephonic, electronic or other communication facilities shall be deemed for the purposes hereof to be present at the meeting.
9. Chairman. The Chairman of the Board, or in his absence the President, or in his absence a person chosen by a vote at the meeting shall be chairman of meetings of shareholders.
10. Meetings by telephonic or electronic means. A meeting of the shareholders may be held by means of a telephonic, electronic or other communication facility that permits all participants to communicate adequately with each other during the meeting.
11. Postponement or cancellation of meetings. A meeting of shareholders may be postponed or cancelled by the board at any time prior to the date of the meeting.
12. Executors and Others. An executor, administrator, committee of a mentally incompetent person, guardian or trustee and, where a corporation is such executor, administrator, committee, guardian or trustee of a testator, intestate, mentally incompetent person, ward or cestui que trust, any duly appointed representative of such corporation, upon filing with the secretary of the meeting sufficient proof of his appointment, shall represent the shares in his or its hands at all meetings of shareholders of the Corporation and may vote accordingly as a shareholder in the same manner and to the same extent as the shareholder of record. If there be more than one executor, administrator, committee, guardian or trustee, the provisions of this by-law respecting joint shareholders shall apply.
13. Procedures at meetings. The board may determine the procedures to be followed at any meeting of shareholders including, without limitation, the rules of order. Subject to the foregoing, the chair of a meeting may determine the procedures of the meeting in all respects.

OFFICERS

14. General. The directors may from time to time appoint a Chairman of the Board, a President, one or more Vice-Presidents, a Secretary, a Treasurer and such other officers as the directors may determine, including one or more assistants to any of the officers so appointed. The officers so appointed may but need not be members of the board of directors except as provided in sections 16 and 17.
15. Term of Office. Any officer may be removed by the directors at any time but such removal shall not affect the rights of such officer under any contract of employment with the Corporation. Otherwise, each officer shall hold office until his successor is appointed.
16. The Chairman of the Board. The Chairman of the Board, if any, shall be appointed from among the directors and shall, when present, be chairman of meetings of shareholders

and directors and shall have such other powers and duties as the directors may determine.

17. The President. Unless the directors otherwise determine, the President shall be the chief executive officer of the Corporation and shall have general supervision of its business and affairs and in the absence of the Chairman of the Board shall be chairman at meetings of shareholders and directors when present.
18. Vice-President. A Vice-President shall have such powers and duties as the directors or the President may determine.
19. Secretary. The Secretary shall give, or cause to be given, all notices required to be given to shareholders, directors, auditors and members of committees; shall attend and be secretary of all meetings of shareholders, directors and committees appointed by the directors and shall enter or cause to be entered on books kept for that purpose minutes of all proceedings at such meetings; shall be the custodian of the corporate seal of the Corporation and of all records, books, documents and other instruments belonging to the Corporation; and shall have such other powers and duties as the directors or the President may determine.
20. Treasurer. The Treasurer shall keep proper books of account and accounting records with respect to all financial and other transactions of the Corporation; shall be responsible for the deposit of money, the safe-keeping of securities and the disbursement of the funds of the Corporation; shall render to the directors when required an account of all his transactions as Treasurer and of the financial position of the Corporation; and he shall have such other powers and duties as the directors or the President may determine.
21. Other Officers. The powers and duties of all other officers shall be such as the directors or the President may determine. Any of the powers and duties of an officer to whom an assistant has been appointed may be exercised and performed by such assistant, unless the directors or the President otherwise direct.
22. Variation of Duties. The directors may, from time to time, vary, add to or limit the powers and duties of any officer.
23. Conflict of Interest. An officer shall disclose his interest in any material contract or proposed material contract in accordance with the *Canada Business Corporations Act*.
24. Agents and Attorneys. The directors shall have power from time to time to appoint agents or attorneys for the Corporation in or out of Canada with such powers (including the power to sub-delegate) of management, administration or otherwise as the directors may specify.

SHARES

25. Transfer of Shares. Subject to the *Canada Business Corporations Act*, no transfer of a share shall be registered except upon presentation of the certificate representing such share with an endorsement which complies with the *Canada Business Corporations Act*, together with such reasonable assurance that the endorsement is genuine and effective as the directors may prescribe, upon payment of all applicable taxes and fees and upon compliance with the articles of the Corporation.

26. Non-Recognition of Trust. Subject to the *Canada Business Corporations Act*, the Corporation may treat the registered holder of any share as the person exclusively entitled to vote, to receive notices, to receive any dividend or other payment in respect of the share, and to exercise all the rights and powers of an owner of the share.
27. Replacement of Share Certificates. Where the owner of a share certificate claims that the share certificate has been lost, apparently destroyed or wrongfully taken, the Corporation shall issue or cause to be issued a new certificate in place of the original certificate if the owner (i) so requests before the Corporation has notice that the share certificate has been acquired by a *bona fide* purchaser; (ii) files with the Corporation an indemnity bond sufficient in the Corporation's opinion to protect the Corporation and any transfer agent, registrar or other agent of the Corporation from any loss that it or any of them may suffer by complying with the request to issue a new share certificate; and (iii) satisfies any other reasonable requirements imposed from time to time by the Corporation.

DIVIDENDS AND RIGHTS

28. Declaration of Dividends. Subject to the *Canada Business Corporations Act* and the articles of the Corporation, the directors may from time to time declare dividends payable to the shareholders according to their respective rights and interest in the Corporation.
29. Cheques. A dividend payable in money shall be paid by cheque to the order of each registered holder of shares of the class or series in respect of which it has been declared and mailed by prepaid ordinary mail to such registered holder at the address of such holder in the Corporation's securities register, unless such holder otherwise directs. In the case of joint holders the cheque shall, unless such joint holders otherwise direct, be made payable to the order of all such joint holders and mailed to them at their address in the Corporation's securities register. The mailing of such cheque as aforesaid, unless the same is not paid on due presentation, shall satisfy and discharge the liability for the dividend to the extent of the sum represented thereby plus the amount of any tax which the Corporation is required to and does withhold.
30. Non-Receipt of Cheques. In the event of non-receipt of any dividend cheque by the person to whom it is sent as aforesaid, the Corporation shall issue to such person a replacement cheque for a like amount on such terms as to indemnity, reimbursement of expenses and evidence of non-receipt and of title as the directors may from time to time prescribe, whether generally or in any particular case.
31. Record Date for Dividends and Rights. The directors may fix in advance a date, preceding by not more than fifty days the date for payment of any dividend or the date for the issue of any warrant or other evidence of the right to subscribe for securities of the Corporation, as a record date for the determination of the persons entitled to receive payment of such dividend or to exercise the rights to subscribe for such securities, and notice of any such record date shall be given not less than seven days before such record date in the manner provided by the *Canada Business Corporations Act*. If no record date is so fixed, the record date for the determination of the persons entitled to receive payment of any dividend or to exercise the right to subscribe for securities of the Corporation shall be at the close of business on the day on which the resolution relating to such dividend or right to subscribe is passed by the directors.

32. Unclaimed Dividends. Any dividend unclaimed after a period of six years from the date on which the same has been declared to be payable shall be forfeited and shall revert to the Corporation.

INDEMNIFICATION

33. Indemnification of directors and officers. The Corporation will indemnify a director or officer of the Corporation, a former director or officer of the Corporation or another individual who acts or acted at the Corporation's request as a director or officer, or in a similar capacity, of another entity, and his or her heirs and legal representatives to the extent permitted by the *Canada Business Corporations Act*.
34. Indemnity of others. Except as otherwise required by the *Canada Business Corporations Act*, the Corporation may from time to time indemnify and save harmless any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Corporation) by reason of the fact that he or she is or was an employee or agent of the Corporation, or is or was serving at the request of the Corporation as an employee, agent of or participant in another entity against expenses (including legal fees), judgments, fines and any amount actually and reasonably incurred by him or her in connection with such action, suit or proceeding if he or she acted honestly and in good faith with a view to the best interests of the Corporation or, as the case may be, to the best interests of the other entity for which he or she served at the Corporation's request and, with respect to any criminal or administrative action or proceeding that is enforced by a monetary penalty, had reasonable grounds for believing that his or her conduct was lawful. The termination of any action, suit or proceeding by judgment, order, settlement or conviction will not, of itself, create a presumption that the person did not act honestly and in good faith with a view to the best interests of the Corporation or other entity and, with respect to any criminal or administrative action or proceeding that is enforced by a monetary penalty, had no reasonable grounds for believing that his or her conduct was lawful.
35. Right of indemnity not exclusive. The provisions for indemnification contained in the by-laws of the Corporation will not be deemed exclusive of any other rights to which any person seeking indemnification may be entitled under any agreement, vote of shareholders or directors or otherwise, both as to action in his or her official capacity and as to action in another capacity, and will continue as to a person who has ceased to be, a director, officer, employee or agent and will inure to the benefit of that person's heirs and legal representatives.
36. No liability of directors or officers for certain matters. To the extent permitted by law, no director or officer for the time being of the Corporation will be liable for the acts, receipts, neglects or defaults of any other director or officer or employee or for joining in any receipt or act for conformity or for any loss, damage or expense happening to the Corporation through the insufficiency or deficiency of title to any property acquired by the Corporation or for or on behalf of the Corporation or for the insufficiency or deficiency of any security in or upon which any of the moneys of or belonging to the Corporation will be placed out or invested or for any loss or damage arising from the bankruptcy, insolvency or tortious act of any person, firm or body corporate with whom or which any moneys, securities or other assets belonging to the Corporation will be lodged or deposited or for any loss, conversion, misapplication or misappropriation of or any

damage resulting from any dealings with any moneys, securities or other assets belonging to the Corporation or for any other loss, damage or misfortune whatever which may happen in the execution of the duties of his or her respective office or trust or in relation thereto unless the same will happen by or through his or her failure to act honestly and in good faith with a view to the best interests of the Corporation and in connection therewith to exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances. If any director or officer of the Corporation is employed by or performs services for the Corporation otherwise than as a director or officer or is a member of a firm or a shareholder, director or officer of a body corporate which is employed by or performs services for the Corporation, the fact that the person is a director or officer of the Corporation will not disentitle such director or officer or such firm or body corporate, as the case may be, from receiving proper remuneration for such services.

BANKING ARRANGEMENTS, CONTRACTS, ETC.

37. Banking arrangements. The banking business of the Corporation, or any part thereof, will be transacted with such banks, trust companies or other financial institutions as the board may designate, appoint or authorize from time to time and all such banking business, or any part thereof, will be transacted on the Corporation's behalf by one or more officers or other persons as the board may designate, direct or authorize from time to time.
38. Execution of instruments. Contracts, documents or instruments in writing requiring execution by the Corporation will be signed by hand any two directors or officers and all contracts, documents or instruments in writing so signed will be binding upon the Corporation without any further authorization or formality. The board is authorized from time to time by resolution
- (a) to appoint any officer or any other person on behalf of the Corporation to sign by hand (whether under the corporate seal of the Corporation, if any, or otherwise) and deliver either contracts, documents or instruments in writing generally or to sign either by hand or by facsimile or mechanical signature or otherwise (whether under the corporate seal of the Corporation, if any, or otherwise) and deliver specific contracts, documents or instruments in writing, and
 - (b) to delegate to any two officers of the Corporation the powers to designate, direct or authorize from time to time in writing one or more officers or other persons on the Corporation's behalf to sign either by hand or by facsimile or mechanical signature or otherwise (whether under the corporate seal of the Corporation, if any, or otherwise) and deliver contracts, documents or instruments in writing of such type and on such terms and conditions as such two officers see fit.

Contracts, documents or instruments in writing that are to be signed by hand may be signed electronically. The term "contracts, documents or instruments in writing" as used in this by-law includes without limitation deeds, mortgages, charges, conveyances, powers of attorney, transfers and assignments of property of all kinds (including specifically but without limitation transfers and assignments of shares, warrants, bonds, debentures or other securities), proxies for shares or other securities and all paper writings.

NOTICES

39. General. A notice or document required by the *Canada Business Corporations Act*, the regulations thereunder, the articles or the by-laws of the Corporation to be sent to a shareholder or director of the Corporation may be sent by prepaid mail addressed to, or may be delivered personally to, the shareholder at his latest address as shown in the records of the Corporation or to the director at his latest address as shown in the records of the Corporation or in the most recent notice filed under the *Canada Business Corporations Act*, whichever is the more current, or may be sent by any electronic means that produces a written copy. A notice or document if mailed to a shareholder or director of the Corporation shall be deemed to have been given when deposited in a post office or public letter box. If the Corporation sends a notice or document to a shareholder in accordance with this section and the notice or document is returned on three consecutive occasions because the shareholder cannot be found, the Corporation is not required to send any further notices or documents to the shareholder until he informs the Corporation in writing of his new address.

MISCELLANEOUS

40. Invalidity of any provisions of this by-law. The invalidity or unenforceability of any provision of this by-law will not affect the validity or enforceability of the remaining provisions of this by-law.
41. Omissions and errors. The accidental omission to give any notice to any shareholder, director, officer or auditor or the non-receipt of any notice by any shareholder, director, officer or auditor or any error in any notice not affecting its substance will not invalidate any action taken at any meeting to which the notice related or otherwise founded on the notice.

INTERPRETATION

42. Interpretation. In this by-law and all other by-laws of the Corporation words importing the singular number only include the plural and vice versa; words importing any gender include all genders; words importing persons include individuals, corporations, limited and unlimited liability companies, general and limited partnerships, associations, trusts, unincorporated organizations, joint ventures and governmental authorities; “board” means the board of directors of the Corporation; “*Canada Business Corporations Act*” means *Canada Business Corporations Act*, R.S.C. 1985, c. C-44 as from time to time amended, re-enacted or replaced; terms that are not otherwise defined in this by-law have the meanings attributed to them in the *Canada Business Corporations Act*; and “meeting of shareholders” means an annual meeting of shareholders or a special meeting of shareholders.

REPEAL

43. Repeal. By-law No. 1 of the Corporation is repealed as of the coming into force of this by-law provided that such repeal will not affect the previous operation of any by-law so repealed or affect the validity of any act done or right, privilege, obligation or liability acquired or incurred under or the validity of any contract or agreement made pursuant to any such by-law prior to its repeal. All officers and persons acting under any by-law so repealed will continue to act as if appointed by the directors under the provisions of this by-law or the *Canada Business Corporations Act* until their successors are appointed,