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April 9, 2019

Division of Corporation Finance  
U.S. Securities and Exchange Commission  
100 F Street N.E.  
Washington, D.C. 20549  
USA

Attention: Jim B. Rosenberg, Senior Assistant Chief  
Accountant, Office of Healthcare and  
Insurance

Re: Aptose Biosciences Inc.  
Form 10-K for the Fiscal Year Ended December 31, 2018  
Filed March 12, 2019  
File No. 001-32001

Dear Sirs and Mesdames:

On behalf of our client, Aptose Biosciences Inc. (the "Company"), and pursuant to the Securities Exchange Act of 1934, as amended (the "Act"), and the rules and regulations thereunder, we transmit for your review the Company's response, as we have been informed by the Company, to the Staff's letter of comment, dated April 3, 2019 (the "Comment Letter"), in respect of the above noted filing. The Company's response below is keyed to the heading and comment number contained in the Comment Letter.

**Form 10-K for the Fiscal Year Ended December 31, 2018**

**Item 9A. Controls and Procedures, page 44**

- 1. Please revise to include the disclosures required by Item 307 of Regulation S-K. Please also tell us how the omission of these required disclosures impacts your conclusion with respect to the effectiveness of disclosure controls and procedures as of December 31, 2018.**

The Company proposes to include the following disclosure in an amendment to the Form 10-K:

"As of the end of our fiscal year ended December 31, 2018, an evaluation of the effectiveness of our "disclosure controls and procedures" (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the United States Securities Exchange Act of 1934) was carried out by our management, with the participation of our principal executive officer and principal financial officer. Based upon that evaluation, our principal executive officer and principal financial officer have concluded that as of the end of that fiscal year, our disclosure controls and procedures are effective to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms and (ii) accumulated and communicated to our management, including our principal executive officer and principal financial officers, to allow timely decisions regarding required disclosure.

It should be noted that while our principal executive officer and principal financial officer believe that our disclosure controls and procedures provide a reasonable level of assurance that they are effective, they do not expect that our disclosure controls and procedures or internal control over financial reporting will prevent all errors or fraud. A control system, no matter how well conceived or operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met.”

The Company respectfully advises the Staff that the omission of the above disclosure does not affect the Company’s management’s conclusion with respect to the effectiveness of the Company’s disclosure controls and procedures as of December 31, 2018, as the Company has determined that the omission of such disclosure was not related to the failure of any controls but was rather the result of the inadvertent deletion of the disclosure from a near-final version of the Form 10-K.

As of January 1, 2019, the Company became a “domestic issuer” for purposes of its reporting under the Securities Exchange Act of 1934. As a result, the Company was required for the first time to prepare its annual report on Form 10-K. The omitted disclosure regarding disclosure controls and procedures was included in most drafts of the Form 10-K. However, in the course of making the edits necessary to finalize the Form 10-K, the above disclosure was accidentally deleted while the related disclosure about internal control over financial reporting was being revised.

The Company also respectfully notes that it has always previously included the required disclosure about disclosure controls and procedures in its annual reports filed with the Commission, thus further demonstrating the Company’s belief that the failure to include such disclosure in the current Form 10-K was the result of an unfortunate accident rather than a failure in the effectiveness of its disclosure controls and procedures.

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Should you have further comments or require further information, or if any questions should arise in connection with this submission, please call the undersigned at (604) 630-5199. You also may email me at [miller.dan@dorsey.com](mailto:miller.dan@dorsey.com) or fax me at (604) 687-8504.

Yours truly,

/s/ Daniel M. Miller

Daniel M. Miller

cc: Gregory Chow  
Aptose Biosciences Inc.