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

SCHEDULE 13G

Under the Securities Exchange Act of 1934

APTOSE BIOSCIENCES INC.

(Name of Issuer)

Common shares, no par value per share

(Title of Class of Securities)

03835T200

(CUSIP Number)

December 17, 2019

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

☐ Rule 13d-1(b)

☒ Rule 13d-1(c)

☐ Rule 13d-1(d)

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1	NAMES OF REPORTING PERSONS Opaleye Management Inc. I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY) 20-5648796	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION Massachusetts	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	5	SOLE VOTING POWER 0
	6	SHARED VOTING POWER 4,085,000
	7	SOLE DISPOSITIVE POWER 0
	8	SHARED DISPOSITIVE POWER 4,085,000
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 4,085,000	
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 5.52% *	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) CO	

* Based upon an aggregate of 74,030,314 common shares issued and outstanding, including 55,486,564 common shares issued and outstanding on November 5, 2019 as reported by the Issuer on its quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 5, 2019 and 18,543,750 common shares issued in a public offering on December 17, 2019, as reported by the Issuer on its Form 8-K filed with the Securities and Exchange Commission on December 19, 2019. This calculation does not include the exercise or conversion of outstanding securities of the Issuer.

1	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY) Opaleye, L.P.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input type="checkbox"/> SEC USE ONLY	
3		
4	CITIZENSHIP OR PLACE OF ORGANIZATION	
	Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	5	SOLE VOTING POWER
		0
	6	SHARED VOTING POWER
		4,085,000
	7	SOLE DISPOSITIVE POWER
		0
	8	SHARED DISPOSITIVE POWER
		4,085,000
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 4,085,000	
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 5.52% *	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)	
	PN	

* Based upon an aggregate of 74,030,314 common shares issued and outstanding, including 55,486,564 common shares issued and outstanding on November 5, 2019 as reported by the Issuer on its quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 5, 2019 and 18,543,750 common shares issued in a public offering on December 17, 2019, as reported by the Issuer on its Form 8-K filed with the Securities and Exchange Commission on December 19, 2019. This calculation does not include the exercise or conversion of outstanding securities of the Issuer.

1	NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY) James Silverman	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input type="checkbox"/> SEC USE ONLY	
3		
4	CITIZENSHIP OR PLACE OF ORGANIZATION United States	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	5	SOLE VOTING POWER 0
	6	SHARED VOTING POWER 4,085,000
	7	SOLE DISPOSITIVE POWER 0
	8	SHARED DISPOSITIVE POWER 4,085,000
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 4,085,000	
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 5.52% *	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) IN	

* Based upon an aggregate of 74,030,314 common shares issued and outstanding, including 55,486,564 common shares issued and outstanding on November 5, 2019 as reported by the Issuer on its quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 5, 2019 and 18,543,750 common shares issued in a public offering on December 17, 2019, as reported by the Issuer on its Form 8-K filed with the Securities and Exchange Commission on December 19, 2019. This calculation does not include the exercise or conversion of outstanding securities of the Issuer.

Item 1(a). Name of Issuer:

The name of the issuer is Aptose Biosciences Inc. (the "Company").

Item 1(b). Address of Issuer's Principal Executive Offices:

The Company's principal executive offices are located at 251 Consumers Road, Suite 1105, Toronto, Ontario, Canada M2J 4R3.

Item 2(a). Name of Person Filing.

This statement is filed by the entities and persons listed below, who are collectively referred to herein as "Reporting Persons" with respect to the common shares of the Company:

Opaleye Fund

Opaleye, L.P. (the "Opaleye Fund"), a private fund formed in the state of Delaware.

Investment Manager

Opaleye Management Inc. (the "Investment Manager"), with respect to the common shares held by the Opaleye Fund, a private fund to which the Investment Manager serves as investment manager. The Investment Manager also serves as a portfolio manager for a separate managed account (the "Managed Account") and may be deemed to indirectly beneficially own securities owned by the Managed Account. The Investment Manager disclaims beneficial ownership of the shares held by the Managed Account.

Reporting Individual

Mr. James Silverman (the "Reporting Individual"), with respect to the common shares held by the Opaleye Fund. Mr. Silverman is the President of the Investment Manager.

Item 2(b). Address of Principal Business Office or, if None, Residence.

One Boston Place, 26th Floor
Boston, Massachusetts 02108

Item 2(c). Citizenship.

Citizenship is set forth in Row 4 of the cover page for each Reporting Person and is incorporated herein by reference for each such Reporting Person.

Item 2(d). Title of Class of Securities.

Common shares, no par value per share

Item 2(e). CUSIP Number.

03835T200

Item 3. If This Statement is Filed Pursuant to Rule 13d-1(b), or 13d-2(b) or (c), Check Whether the Person Filing is a:

- (a) ☐ Broker or dealer registered under Section 15 of the Exchange Act.
- (b) ☐ Bank as defined in Section 3(a)(6) of the Exchange Act.
- (c) ☐ Insurance company as defined in Section 3(a)(19) of the Exchange Act.
- (d) ☐ Investment company registered under Section 8 of the Investment Company Act.
- (e) ☐ An investment adviser in accordance with Rule 13d-1(b)(1)(ii)(E);
- (f) ☐ An employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F);
- (g) ☐ A parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G);
- (h) ☐ A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act;
- (i) ☐ A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act;
- (j) ☐ A non-U.S. institution in accordance with Rule 13d-1(b)(1)(ii)(J);
- (k) ☐ Group, in accordance with Rule 13d-1(b)(1)(ii)(K).

If filing as a non-U.S. institution in accordance with Rule 13d-1(b)(1)(ii)(J), please specify the type of institution: _____

Item 4. Ownership.

(a) Amount beneficially owned:

Opaleye Management Inc. — 4,085,000 common shares*
 Opaleye, L.P. — 4,085,000 common shares*
 James Silverman — 4,085,000 common shares*

* Includes 135,000 common shares held by the Managed Account

(b) Percent of class:

Opaleye Management Inc. — 5.52%**
 Opaleye, L.P. — 5.52%**
 James Silverman — 5.52%**

** Based upon an aggregate of 74,030,314 common shares issued and outstanding, including 55,486,564 common shares issued and outstanding on November 5, 2019 as reported by the Issuer on its quarterly report on Form 10-Q filed with the Securities and Exchange Commission on November 5, 2019 and 18,543,750 common shares issued in a public offering on December 17, 2019, as reported by the Issuer on its Form 8-K filed with the Securities and Exchange Commission on December 19, 2019. This calculation does not include the exercise or conversion of outstanding securities of the Issuer.

(c) Number of shares as to which the person has:

(i) Sole power to vote or to direct the vote:

Opaleye Management Inc. — 0 shares
Opaleye, L.P. — 0 shares
James Silverman — 0 shares

(ii) Shared power to vote or to direct the vote:

Opaleye Management Inc. — 4,085,000 common shares*
Opaleye, L.P. — 4,085,000 common shares*
James Silverman — 4,085,000 common shares*

* Includes 135,000 common shares held by the Managed Account

(iii) Sole power to dispose or to direct the disposition of:

Opaleye Management Inc. — 0 shares
Opaleye, L.P. — 0 shares
James Silverman — 0 shares

(iv) Shared power to dispose or to direct the disposition of:

Opaleye Management Inc. — 4,085,000 common shares*
Opaleye, L.P. — 4,085,000 common shares*
James Silverman — 4,085,000 common shares*

* Includes 135,000 common shares held by the Managed Account

Item 5. Ownership of Five Percent or Less of a Class.

If this statement is being filed to report the fact that as of the date hereof the Reporting Persons have ceased to be the beneficial owners of more than five percent of the class of securities, check the following [].

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

Not applicable.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported by the Parent Holding Company or Control Person.

Not applicable.

Item 8. Identification and Classification of Members of the Group.

Not applicable.

Item 9. Notice of Dissolution of Group.

Not applicable.

Item 10. Certification.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: December 27, 2019

By: /s/ James Silverman
James Silverman

Opaleye, L.P.

Date: December 27, 2019

By: /s/ James Silverman
Name: James Silverman
Title: Managing Member of Opaleye
GP LLC, the General Partner of
Opaleye, L.P.

Opaleye Management Inc.

Date: December 27, 2019

By: /s/ James Silverman
Name: James Silverman
Title: President

JOINT FILING AGREEMENT

This Joint Filing Agreement, dated December 27, 2019, is entered into by and among Opaleye Management Inc., a Massachusetts corporation, Opaleye, L.P., a Delaware limited partnership and James Silverman, an individual (collectively referred to herein as (the “Filers”). Each of the Filers may be required to file with the U.S. Securities and Exchange Commission a statement on Schedule 13G with respect to common shares, no par value per share, of Aptose Biosciences Inc. beneficially owned by them from time to time. Pursuant to and in accordance with Rule 13(d)(1)(k) promulgated under the Securities Exchange Act of 1934, as amended, the Filers hereby agree to file a single statement on Schedule 13G and/or 13D (and any amendments thereto) on behalf of each of such parties, and hereby further agree to file this Joint Filing Agreement as an exhibit to such statement, as required by such rule. This Joint Filing Agreement may be terminated by any of the Filers upon one week’s prior written notice or such lesser period of notice as the Filers may mutually agree.

DATED: December 27, 2019

By: /s/ James Silverman
James Silverman

Opaleye, L.P.

By: /s/ James Silverman
Name: James Silverman
Title: Managing Member of
Opaleye GP LLC, the General Partner
of Opaleye, L.P.

Opaleye Management Inc.

By: /s/ James Silverman
Name: James Silverman
Title: President
