SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934

Aptose Bioscience Inc. (Name of Issuer)

Common Shares, no par value (Title of Class of Securities)

03835T200 (CUSIP Number)

May 4, 2022 (Date of Event Which Requires Filing of this Statement)

| | (|
|-----|--|
| Che | ck the appropriate box to designate the rule pursuant to which this Schedule is filed: |
| | Rule 13d-1(b) |
| X | 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 disclosures provided in a prior cover page.

The information required on 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 (the "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 | | | ING PERSONS ON NOS. OF ABOVE PERSONS (entities only) | | |
|-----------------------|---|--|---|----------------|--|
| | Bios Special O | ity Fund, LP | | | |
| 2 | CHECK THE A | PPROP | RIATE BOX IF A MEMBER OF A GROUP (See Instructions) | (a) □ (b) ⊠ | |
| 3 | SEC USE ONL | Y | | | |
| 4 | CITIZENSHIP | OR PL | ACE OF ORGANIZATION | | |
| | USA | | | | |
| NUM O | | 5 | SOLE VOTING POWER 3,311,458 (1) | | |
| SHA BENEFI OWNI | RES 6 | | SHARED VOTING POWER 0 | | |
| REPOI PER | RTING SON | ACH 7 SOLE DISPOSITIVE POWER 3,311,458 (1) | | | |
| WI | ГН | 8 | SHARED DISPOSITIVE POWER 0 | | |
| 9 | AGGREGATE | AMOU | NT BENEFICIALLY OWNED BY EACH REPORTING PERSON | | |
| | 3,311,458 (1) | | | | |
| 10 | CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* | | | | |
| | Not Applicable. | | | | |
| 11 | PERCENT OF | CLASS | S REPRESENTED BY AMOUNT IN ROW 9 | | |
| | 3.6% (2) | | | | |

| 12 | TYPE OF REPORTING PERSON |
|----|--------------------------|
| | PN |

- (1) Consists of 3,311,458 outstanding shares of common stock of the Issuer, no par value ("Shares"), directly held by Bios Special Opportunity Fund, LP as of the date hereof. Aaron Fletcher is the manager of Bios Advisors GP, LLC, the general partner of Bios Capital Management, LP, the general partner of Bios Equity SOF I, LP, the general partner of Bios Special Opportunity Fund, LP.
- (2) Based on 92,294,734 Shares outstanding as of September 30, 2022, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 1, 2022.

| 1 | NAMES OF R | FPORT | ING PERSONS | | | | | | |
|-----------------|--|---|---|--|----------------|--|--|--|--|
| 1 | | | ON NOS. OF ABOVE PERSONS (entities only) | | | | | | |
| | Bios Special O | Bios Special Opportunity Fund II, LP | | | | | | | |
| 2 | CHECK THE A | .PPROP | RIATE BOX IF A MEMBER OF A GROUP (See Instructions) | | (a) □ (b) ⊠ | | | | |
| 3 | SEC USE ONL | Y | | | | | | | |
| 4 | CITIZENSHIP | OR PL | ACE OF ORGANIZATION | | | | | | |
| | USA | | | | | | | | |
| | MBER | 5 | SOLE VOTING POWER 925,042 (1) | | | | | | |
| SH BENEI | OF SHARES ENEFICIALLY OWNED BY EACH REPORTING PERSON | | SHARED VOTING POWER 0 | | | | | | |
| E REPO PE | | | SOLE DISPOSITIVE POWER 925,042 (1) | | | | | | |
| V | VITH | 8 | SHARED DISPOSITIVE POWER 0 | | | | | | |
| 9 | AGGREGATE | E AMOU | JNT BENEFICIALLY OWNED BY EACH REPORTING PERSON | | | | | | |
| | 925,042 (1) | | | | | | | | |
| 10 | CHECK IF TH | IE AGG | REGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* | | | | | | |
| | Not Applicable | Not Applicable. | | | | | | | |
| 11 | PERCENT OF | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 | | | | | | | |
| | 0.11% (2) | | | | | | | | |
| 12 | TYPE OF REF | ORTIN | G PERSON | | | | | | |
| | PN | | | | | | | | |
| | | | | | | | | | |

- (1) Consists of 925,042 outstanding Shares, directly held by Bios Special Opportunity Fund II, LP as of the date hereof. Aaron Fletcher is the manager of Bios Advisors GP, LLC, the general partner of Bios Capital Management, LP, the general partner of Bios Special Opportunity Fund II, LP.
- (2) Based on 92,294,734 Shares outstanding as of September 30, 2022, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 1, 2022.

| 1 | NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only) |
|---|---|
| | Bios Equity Partners SOF I, LP |

| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) | | | | | | |
|--------------------------|---|--------|---|--|--|--|--|
| 3 | SEC USE ONLY | | | | | | |
| 4 | CITIZENSHIP | OR PL | ACE OF ORGANIZATION | | | | |
| | USA | | | | | | |
| | • | 5 | SOLE VOTING POWER | | | | |
| NUM O | | | 4,236,500 (1) | | | | |
| SHA BENEFI OWNI | CIALLY ED BY | 6 | SHARED VOTING POWER 0 | | | | |
| EA REPOI PER WI | TING 7 SON | | SOLE DISPOSITIVE POWER 4,236,500 (1) | | | | |
| | | 8 | SHARED DISPOSITIVE POWER 0 | | | | |
| 9 | AGGREGATE | AMOU | INT BENEFICIALLY OWNED BY EACH REPORTING PERSON | | | | |
| | 4,236,500 (1) | | | | | | |
| 10 | CHECK IF TH | IE AGG | REGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* | | | | |
| | Not Applicable. | | | | | | |
| 11 | PERCENT OF | CLASS | S REPRESENTED BY AMOUNT IN ROW 9 | | | | |
| | 4.6% (2) | | | | | | |
| 12 | TYPE OF REP | PORTIN | G PERSON | | | | |
| | PN | | | | | | |
| | | | | | | | |

- (1) Consists of 4,236,500 outstanding Shares of which 925,042 shares are directly held by Bios Special Opportunity Fund II, LP and 3,311,458 are directly held by Bios Special Opportunity Fund, LP. Aaron Fletcher is the manager of Bios Advisors GP, LLC, the general partner of Bios Capital Management, LP, the general partner of Bios Equity SOF I, LP, the general partner of Bios Special Opportunity Fund II, LP and Bios Special Opportunity Fund, LP.
- (2) Based on 92,294,734 Shares outstanding as of September 30, 2022, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 1, 2022.

| 1 | | NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only) | | | | | | | |
|---------------------------|-------------------------------------|---|------------------------------------|--|--|--|--|--|--|
| | Precise Bios S | Precise Bios Special Opportunities LLC | | | | | | | |
| 2 | CHECK THE A | HECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) (b) (b) | | | | | | | |
| 3 | SEC USE ONI | LY | | | | | | | |
| 4 | CITIZENSHI | CITIZENSHIP OR PLACE OF ORGANIZATION USA | | | | | | | |
| NUM | | 5 | SOLE VOTING POWER 250,000 (1) | | | | | | |
| O SHA BENEFI OWN | RES CIALLY | 6 | SHARED VOTING POWER 0 | | | | | | |
| REPOI PER | EACH REPORTING PERSON WITH | | SOLE DISPOSITIVE POWER 250,000 (1) | | | | | | |
| WI | 1H | 8 | SHARED DISPOSITIVE POWER 0 | | | | | | |

| 9 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON | |
|----|---|--|
| | 250,000 (1) | |
| 10 | CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* | |
| | Not Applicable. | |
| 11 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 | |
| | 0.3% (2) | |
| 12 | TYPE OF REPORTING PERSON | |
| | 00 | |

- (1) Consists of 250,000 outstanding Shares directly held by Precise Bios Special Opportunities LLC as of the date hereof.
- (2) Based on 92,294,734 Shares outstanding as of September 30, 2022, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 1, 2022.

| | NAMES OF I | DEDOD | TING PERSONS | | | | | | |
|-----------|------------------|---|--|--|----------------|--|--|--|--|
| 1 | | | ION NOS. OF ABOVE PERSONS (entities only) | | | | | | |
| | Joseph O'Dor | Joseph O'Donnell | | | | | | | |
| | Joseph O Doi | | | | | | | | |
| 2 | CHECK THE | APPROF | PRIATE BOX IF A MEMBER OF A GROUP (See Instructions) | | (a) □ (b) ⊠ | | | | |
| | | | | | (-) | | | | |
| 3 | SEC USE ONI | LY. | | | | | | | |
| 4 | CITIZENSHI | P OR PI | LACE OF ORGANIZATION | | | | | | |
| | USA | | | | | | | | |
| | | Τ. | SOLE VOTING POWER | | | | | | |
| 3.17.11 | MED | 5 | SOLE VOTING POWER 100,000 (1) | | | | | | |
| | MBER OF | | | | | | | | |
| | ARES FICIALLY | 6 | SHARED VOTING POWER 0 | | | | | | |
| | NED BY | | | | | | | | |
| | ACH ORTING | 7 | SOLE DISPOSITIVE POWER | | | | | | |
| PE | RSON | | 100,000 (1) | | | | | | |
| W | /ITH | 8 | SHARED DISPOSITIVE POWER | | | | | | |
| | | | 0 | | | | | | |
| 9 | AGGREGAT | E AMO | UNT BENEFICIALLY OWNED BY EACH REPORTING PERSON | | | | | | |
| | 100,000 (1) | | | | | | | | |
| 10 | CHECK IF T | HE AGO | GREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* | | | | | | |
| 10 | | | | | | | | | |
| | | Not Applicable. | | | | | | | |
| 11 | PERCENT O | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 | | | | | | | |
| 0.11% (2) | | | | | | | | | |
| 12 | TYPE OF RE | PORTIN | NG PERSON | | | | | | |
| | IN | | | | | | | | |
| | | | | | | | | | |

- (1) Consists of 100,000 outstanding Shares, directly held by Joseph O'Donnell as of the date hereof.
- (2) Based on 92,294,734 Shares outstanding as of September 30, 2022, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 1, 2022.

| 1 | | | ING PERSONS ON NOS. OF ABOVE PERSONS (entities only) | | | | | |
|----------------|---|---|---|----------------|--|--|--|--|
| | | | | | | | | |
| | Kleinheinz Family Foundation for the Arts and Education | | | | | | | |
| 2 | CHECK THE A | PPROP | RIATE BOX IF A MEMBER OF A GROUP (See Instructions) | (a) □ (b) ⊠ | | | | |
| | | | | (D) 🖾 | | | | |
| 3 | SEC USE ONLY | <i>T</i> | | | | | | |
| 4 | CITIZENSHIP | OR PL | ACE OF ORGANIZATION | | | | | |
| | USA | | | | | | | |
| | | 5 | SOLE VOTING POWER | | | | | |
| NUM | | | 124,100 (1) | | | | | |
| O SHA | RES | 6 | SHARED VOTING POWER | | | | | |
| BENEFI OWNI | | | | | | | | |
| EA0 REPOI | - | 7 | SOLE DISPOSITIVE POWER | | | | | |
| PER | SON | | 124,100 (1) | | | | | |
| WI | ГH | 8 | SHARED DISPOSITIVE POWER | | | | | |
| | | | | | | | | |
| 9 | AGGREGATE | AMOU | JNT BENEFICIALLY OWNED BY EACH REPORTING PERSON | | | | | |
| | 124,100 (1) | | | | | | | |
| 10 | CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* | | | | | | | |
| | Not Applicable. | | | | | | | |
| 11 | PERCENT OF | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 | | | | | | |
| 11 | | CL: IOC | ALL ALLES DE LA CONTENTO II VI | | | | | |
| | ` ' | 0.1% (2) | | | | | | |
| 12 | TYPE OF REP | ORTIN | G PERSON | | | | | |
| | 00 | | | | | | | |
| I | 1 | | | | | | | |

- (1) Consists of 124,100 outstanding Shares directly held by the Kleinheinz Family Foundation for the Arts and Education as of the date hereof.
- (2) Based on 92,294,734 Shares outstanding as of September 30, 2022, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 1, 2022.

| 1 | | NAMES OF REPORTING PERSONS | | | | | | | |
|------|-------------------|---|---|-------|--|--|--|--|--|
| | I.R.S. IDENTI | I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only) | | | | | | | |
| | Robert Vernor | Vonmo | n | | | | | | |
| | Kobert verilor | i v aiiiiia | 11 | | | | | | |
| 2 | CHECK THE A | PPR∩P | RIATE BOX IF A MEMBER OF A GROUP (See Instructions) | (a) 🗆 | | | | | |
| _ | CHECK THE 7 | II I ROI | RITTE BOX II A MEMBER OF A GROOT (See instructions) | (b) ⊠ | | | | | |
| | | | | | | | | | |
| 3 | SEC USE ONL | Y | | | | | | | |
| | | | | | | | | | |
| 4 | CITIZENSHIE | OR PL | ACE OF ORGANIZATION | | | | | | |
| | USA | | | | | | | | |
| | O Si I | | | | | | | | |
| | | 1 | | | | | | | |
| | | 5 | SOLE VOTING POWER | | | | | | |
| NIIN | MBER | | 200,000 (1) | | | | | | |
| | OF | 6 | | | | | | | |
| | SHARES | | SHARED VOTING POWER | | | | | | |
| | BENEFICIALLY | | 0 | | | | | | |
| | ED BY | 7 | GOLD DARROWS IN DOUGH | | | | | | |
| | EACH REPORTING | | SOLE DISPOSITIVE POWER | | | | | | |
| | RSON | | 200,000 (1) | | | | | | |

| WITH | | 8 | SHARED DISPOSITIVE POWER 0 | | | | | |
|------|---|--|--------------------------------|--|--|--|--|--|
| 9 | AGGREGATE | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON | | | | | | |
| | 200,000 (1) | | | | | | | |
| 10 | CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* | | | | | | | |
| | Not Applicable | Not Applicable. | | | | | | |
| 11 | PERCENT OF | CLASS | REPRESENTED BY AMOUNT IN ROW 9 | | | | | |
| | 0.2% (2) | | | | | | | |
| 12 | TYPE OF REI | TYPE OF REPORTING PERSON | | | | | | |
| | 00 | | | | | | | |

- (1) Consists of 200,000 outstanding Shares directly held by Robert Vernon Vanman as of the date hereof.
- (2) Based on 92,294,734 Shares outstanding as of September 30, 2022, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 1, 2022.

| 1 | NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only) Vanman Charitable Foundation | | | | | |
|---------------|--|---|--|----------------|--|--|
| 2 | CHECK THE A | APPROF | PRIATE BOX IF A MEMBER OF A GROUP (See Instructions) | (a) □ (b) ⊠ | | |
| 3 | SEC USE ONL | Y | | <u> </u> | | |
| 4 | CITIZENSHIF | CITIZENSHIP OR PLACE OF ORGANIZATION USA | | | | |
| | ИВЕR OF | 5 | SOLE VOTING POWER 200,000 (1) | | | |
| SHA BENEFI | ARES ICIALLY ED BY | 6 | SHARED VOTING POWER 0 | | | |
| REPO PER | ACH RTING RSON | 7 | SOLE DISPOSITIVE POWER 200,000 (1) | | | |
| W | ITH | 8 | SHARED DISPOSITIVE POWER 0 | | | |
| 9 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 200,000 (1) | | | | | |
| 10 | CHECK IF TH | CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* | | | | |
| | Not Applicable | ot Applicable. | | | | |
| 11 | 11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 | | | 1 | | |
| | 0.2% (2) | | | | | |
| 12 | TYPE OF REI | PORTIN | NG PERSON | | | |
| | 00 | | | | | |

- (1) Consists of 200,000 outstanding Shares directly held by Vanman Charitable Foundation as of the date hereof.
- (2) Based on 92,294,734 Shares outstanding as of September 30, 2022, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 1, 2022.

| 1 | NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only) Bios Capital Management, LP | | | | | |
|-----------------------|--|--------|---|----------------|--|--|
| 2 | CHECK THE A | PPROP | RIATE BOX IF A MEMBER OF A GROUP (See Instructions) | (a) □ (b) ⊠ | | |
| 3 | SEC USE ONL | Y | | | | |
| 4 | CITIZENSHIP | OR PL | ACE OF ORGANIZATION | | | |
| | USA | | | | | |
| NUM O | | 5 | SOLE VOTING POWER 5,110,600 (1) | | | |
| SHA BENEFI OWNI | RES CIALLY | 6 | SHARED VOTING POWER 0 | | | |
| EA REPOI PER | RTING SON | 7 | SOLE DISPOSITIVE POWER 5,110,600 (1) | | | |
| WI | | 8 | SHARED DISPOSITIVE POWER 0 | | | |
| 9 | AGGREGATE | E AMOU | JNT BENEFICIALLY OWNED BY EACH REPORTING PERSON | | | |
| | 5,110,600 (1) | | | | | |
| 10 | CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* | | | | | |
| | Not Applicable. | | | | | |
| 11 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 | | | | | |
| | 5.5% (2) | | | | | |
| 12 | TYPE OF REF | PORTIN | G PERSON | | | |
| | PN | | | | | |

- (1) Solely in its capacity as the general partner of Bios Equity Partners SOF I, LP, which is the general partner of each of Bios Special Opportunity Fund II, LP and Bios Special Opportunity Fund, LP, and in its capacity as investment adviser to each of Precise Bios Special Opportunities LLC, Joseph O'Donnell, Kleinheinz Family Foundation for the Arts and Education, Robert Vernon Vanman, and Vanman Charitable Foundation. Aaron Fletcher is the manager of Bios Advisors GP, LLC, the general partner of Bios Capital Management, LP, the general partner of Bios Equity SOF I, LP, the general partner of each of Bios Special Opportunity Fund II, LP and Bios Special Opportunity Fund, LP.
- (2) Based on 92,294,734 Shares outstanding as of September 30, 2022, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 1, 2022.

| 1 | NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only) Bios Advisors GP, LLC | |
|---|--|------------|
| 2 | |) □) ⊠ |
| 3 | SEC USE ONLY | |
| 4 | CITIZENSHIP OR PLACE OF ORGANIZATION USA | |

| | NUMBER OF | | SOLE VOTING POWER 5,110,600 (1) | |
|------------------------------------|---|-------|---|--|
| SHARES BENEFICIALLY OWNED BY | | 6 | SHARED VOTING POWER 0 | |
| REPOR PERS | EACH REPORTING PERSON WITH | | SOLE DISPOSITIVE POWER 5,110,600 (1) | |
| | | 8 | SHARED DISPOSITIVE POWER | |
| 9 | AGGREGATE | AMOU | INT BENEFICIALLY OWNED BY EACH REPORTING PERSON | |
| | 5,110,600 (1) | | | |
| 10 | CHECK IF TH | E AGG | REGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* | |
| | Not Applicable. | | | |
| 11 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 | | | |
| | 5.5% (2) | | | |
| 12 | TYPE OF REPORTING PERSON | | | |
| | 00 | | | |

- (1) Solely in its capacity as the general partner of Bios Capital Management, L.P., the general partner of each Bios Equity Partners SOF I, LP, which is the general partner of each of Bios Special Opportunity Fund II, LP and Bios Special Opportunity Fund, LP, and the investment adviser to each of Precise Bios Special Opportunities LLC, Joseph O'Donnell, Kleinheinz Family Foundation for the Arts and Education, Robert Vernon Vanman, and Vanman Charitable Foundation. Aaron Fletcher is the manager of Bios Advisors GP, LLC, the general partner of Bios Capital Management, LP, the general partner of Bios Equity SOF I, LP, the general partner of each of Bios Special Opportunity Fund II, LP and Bios Special Opportunity Fund, LP.
- (2) Based on 92,294,734 Shares outstanding as of September 30, 2022, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 1, 2022.

| 1 | NAMES OF REPORTING PERSONS I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only) | | | |
|--|---|---|--|----------------|
| | Aaron G.L. Fle | tcher | | |
| 2 | CHECK THE A | PPROP | PRIATE BOX IF A MEMBER OF A GROUP (See Instructions) | (a) □ (b) ⊠ |
| 3 | SEC USE ONLY | Y | | |
| 4 | CITIZENSHIP | OR PL | ACE OF ORGANIZATION | |
| | USA | | | |
| NUM O | | 5 | SOLE VOTING POWER 6,246,788 (1) | |
| SHA | RES CIALLY | 6 | SHARED VOTING POWER 0 | |
| EA REPOI PER | RTING | 7 | SOLE DISPOSITIVE POWER 6,246,788 (1) | |
| WI | 1H | 8 | SHARED DISPOSITIVE POWER 0 | |
| 9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON | | UNT BENEFICIALLY OWNED BY EACH REPORTING PERSON | | |
| | 6,246,788 (1) | | | |
| 10 | CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* Not Applicable. | | | |

| 11 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 | | | | |
|--|--|--|--|--|--|
| | 6.77% (2) | | | | |
| 12 | TYPE OF REPORTING PERSON | | | | |
| | IN, HC | | | | |
| general pa Opportun Opportun Fletcher i of each of | of 1,136,188 outstanding Shares directly held by Aaron G.L. Fletcher as of the date hereof, as well as in his capacity as Manager of Bios Advisors GP, LLC, the artner of Bios Capital Management, LP, the general partner of each Bios Equity Partners SOF I, LP, which is the general partner of each of Bios Special ity Fund II, LP and Bios Special Opportunity Fund, LP. Bios Capital Management LP also act as the investment adviser to each of Precise Bios Special ities LLC, Joseph O'Donnell, Kleinheinz Family Foundation for the Arts and Education, Robert Vernon Vanman, and Vanman Charitable Foundation. Aaron s the manager of Bios Advisors GP, LLC, the general partner of Bios Capital Management, LP, the general partner of Bios Equity SOF I, LP, the general partner f Bios Special Opportunity Fund II, LP and Bios Special Opportunity Fund, LP. 92,294,734 Shares outstanding as of September 30, 2022, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange | | | | |
| Commiss | ion on November 1, 2022. | | | | |
| | | | | | |
| Item 1(a) | Name of Issuer: | | | | |
| | Aptose Bioscience Inc. | | | | |
| Item 1(b) | Address of Issuer's Principal Executive Offices: | | | | |
| | 251 Consumers Road, Suite 1105 Toronto, Ontario M2J 4R3 Canada | | | | |
| Item 2(a) | Name of Persons Filing: | | | | |
| | Bios Special Opportunity Fund II, LP, Bios Special Opportunity Fund, LP, Bios Equity Partners SOF I, LP, Precise Bios Special Opportunities LLC, Joseph O'Donnell, Kleinheinz Family Foundation for the Arts and Education, Robert Vernon Vanman, Vanman Charitable Foundation, Bios Advisors GP, LLC, and Aaron G.L. Fletcher. | | | | |
| Item 2(b) | Address of Principal Business Office of the Reporting Persons: | | | | |
| | 1751 River Run, Suite 400 Fort Worth, TX 76107 | | | | |
| Item 2(c) | Citizenship: | | | | |
| | Texas, USA | | | | |
| Item 2(d) | Title of Class of Securities: | | | | |
| | Common Shares | | | | |
| Item 2(e) | CUSIP Number: | | | | |
| | 03835T200 | | | | |
| | | | | | |
| Item 3. | If this statement is filed pursuant to Rules 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 Act; | | | | |
| | (b) ☐ Bank as defined in section 3(a)(6) of the Act; | | | | |
| | (c) \square Insurance company as defined in section 3(a)(19) of the Act; | | | | |
| | (d) Investment company registered under section 8 of the Investment Company Act of 1940; | | | | |
| | (e) ☐ An investment adviser in accordance with Rule 13d-1(b)(1)(ii)(E); | | | | |
| | (f) \square An employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F); | | | | |
| | (g) \Box 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 (12 U.S.C. 1813); | | | | |
| | (i) A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940; | | | | |
| | (j) A non-U.S. institution in accordance with Rule 240.13d-1(b)(1)(ii)(J); | | | | |

| (k) 🗆 | Group, in accordance with Rule 240.13d-1(b)(1)(ii)(K). |
|----------|--|
| | If filing as a non-U.S. institution in accordance with Rule 240.13d-1(b)(1)(ii)(J), please specify the type of institution: |
| Owners | hip. |
| The info | rmation contained in Items 5-9 and 11 of the cover pages of this Schedule 13G is hereby incorporated by reference into this Item 4. |
| | ecial Opportunity Fund II, LP ("SOF II") is the direct owner of 925,042 Shares, constituting approximately 0.11% of the Issuer's Shares, and has the ver to vote and dispose of such securities. |

Bios Special Opportunity Fund, LP ("SOF") is the direct owner of 3,311,458 Shares, constituting approximately 3.6% of the Issuer's Shares, and has the sole power to vote and dispose of such securities.

Bios Equity Partners SOF I, LP ("BEP SOF I"), in its capacity as the general partner of SOF II and SOF, has the ability to direct the management of the business of SOF II and SOF, including the power to vote and dispose of securities held by SOF II and SOF. Therefore, BEP SOF I may be deemed to have indirect beneficial ownership of the Shares held by SOF II and SOF.

Precise Bios Special Opportunities LLC is the direct owner of 250,000 Shares, constituting approximately 0.3% of the Issuer's Shares. Bios Capital Management, LP ("Bios Capital Management"), in its capacity as investment adviser to Precise Bios Special Opportunities LLC, has the sole power to vote and dispose of such securities.

Joseph O'Donnell is the direct owner of 100,000 Shares, constituting approximately 0.11% of the Issuer's Shares. Bios Capital Management, in its capacity as investment adviser to Mr. O'Donnell has the sole power to vote and dispose of such securities.

Kleinheinz Family Foundation for the Arts and Education is the direct owner of 124,100 Shares, constituting approximately 124,100 of the Issuer's Shares. Bios Capital Management, in its capacity as investment adviser to the Kleinheinz Family Foundation has the sole power to vote and dispose of such securities.

Robert Vernon Vanman is the direct owner of 200,000 Shares, constituting approximately 0.2% of the Issuer's Shares. Bios Capital

Management, in its capacity as investment adviser to Robert Vernon Vanman has the sole power to vote and dispose of such securities.

Vanman Charitable Foundation is the direct owner of 200,000 Shares, constituting approximately 0.2% of the Issuer's Shares. Bios Capital Management, in its capacity as investment adviser to the Vanman Charitable Foundation has the sole power to vote and dispose of such securities.

Bios Capital Management, LP ("Bios Capital Management") in its capacity as the general partner of BEP SOF I has the ability to direct the management of the business of BEP SOF I, including the power to vote and dispose of securities indirectly beneficially owned by BEP SOF I. Additionally, Bios Capital Management act as the investment adviser to each of Precise Bios Special Opportunities LLC, Joseph O'Donnell, Kleinheinz Family Foundation for the Arts and Education, Robert Vernon Vanman, and Vanman Charitable Foundation, and has the ability to vote or dispose of the Shares reported by those persons or entities. Therefore, Bios Capital Management may be deemed to have indirect beneficial ownership of the Shares held byBEP SOF I, Precise Bios Special Opportunities LLC, Joseph O'Donnell, Kleinheinz Family Foundation for the Arts and Education, Robert Vernon Vanman, and Vanman Charitable Foundation.

Bios Advisors GP, LLC ("Bios Advisors"), in its capacity as the general partner of Bios Capital Management, has the ability to direct the management of the business of Bios Capital Management, including the power to vote and dispose of securities indirectly beneficially owned by Bios Capital Management. Therefore, Bios Advisors may be deemed to have indirect beneficial ownership of the Shares indirectly beneficially owned byBios Capital Management, LP.

Aaron G.L. Fletcher is the direct owner of 1,136,188 Shares. Aaron G.L. Fletcher, in his capacity as Manager of Bios Advisors, has the ability to direct the management of the business of Bios Advisors, including the power to vote and dispose of securities indirectly beneficially owned by Bios Advisors. Therefore, Aaron G.L. Fletcher may be deemed to have indirect beneficial ownership of the Shares indirectly beneficially owned by Bios Advisors GP, LLC.

Pursuant to Rule 13d-4 of the Exchange Act, the Reporting Persons declare that filing this Schedule 13G shall not be construed as an admission that any such person is, for the purposes of Section 13(d) and/or Section 13(g) of the Exchange Act, the beneficial owner of any securities covered by this Schedule 13G except to the extent of such person's pecuniary interest in the Units, and except to the extent of its pecuniary interest, such beneficial ownership is expressly disclaimed by each Reporting Person.

All calculations of percentage ownership herein are based on 92,294,734 Shares outstanding as of September 30, 2022, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 1, 2022.

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 person has ceased to be the beneficial owner of more than 5 percent of the class of securities, check the following \Box .

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

Not Applicable.

Item 4.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on 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, other than activities solely in connection with a nomination under §240.14a-11.

SIGNATURES

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

Dated: January 17, 2023

BIOS SPECIAL OPPORTUNITY FUND II, LP

| By: B | ios Equity | Partners | SOF I, i | its g | eneral | partner |
|-------|------------|----------|----------|-------|--------|---------|
|-------|------------|----------|----------|-------|--------|---------|

By: Bios Capital Management, LP, its general partner

By: Bios Advisors GP, LLC, its general partner

By: /s/ Aaron Glenn Louis Fletcher, Manager

BIOS SPECIAL OPPORTUNITY FUND I, LP

By: Bios Equity Partners SOF I, its general partner

By: Bios Capital Management, LP, its general partner

By: Bios Advisors GP, LLC, its general partner

By: /s/ Aaron Glenn Louis Fletcher, Manager

BIOS EQUITY PARTNERS SOF I

By: Bios Capital Management, LP, its general partner

By: Bios Advisors GP, LLC, its general partner

By: /s/ Aaron Glenn Louis Fletcher, Manager

PRECISE BIOS SPECIAL OPPORTUNITIES LLC

By: Bios Capital Management, LP, its investment adviser

By: Bios Advisors GP, LLC, its general partner

By: /s/ Aaron Glenn Louis Fletcher, Manager

JOSEPH O'DONNELL

By: Bios Capital Management, LP, its investment adviser

By: Bios Advisors GP, LLC, its general partner

By: /s/ Aaron Glenn Louis Fletcher, Manager

KLEINHEINZ FAMILY FOUNDATION FOR THE ARTS AND EDUCATION

By: Bios Capital Management, LP, its investment adviser

By: /s/ Aaron Glenn Louis Fletcher, Manager ROBERT VERNON VANMAN By: Bios Capital Management, LP, its investment adviser By: Bios Advisors GP, LLC, its general partner By: /s/ Aaron Glenn Louis Fletcher, Manager VANMAN CHARITABLE FOUNDATION By: Bios Capital Management, LP, its investment adviser By: Bios Advisors GP, LLC, its general partner By: /s/ Aaron Glenn Louis Fletcher, Manager BIOS CAPITAL MANAGEMENT, LP By: Bios Advisors GP, LLC, its general partner By: /s/ Aaron Glenn Louis Fletcher, Manager BIOS ADVISORS GP, LLC By: /s/ Aaron Glenn Louis Fletcher, Manager AARON G.L. FLETCHER By: /s/ Aaron Glenn Louis Fletcher

By: Bios Advisors GP, LLC, its general partner

INDEX TO EXHIBITS

Exhibit 99.1 Joint Filing Agreement

JOINT FILING AGREEMENT

Pursuant to Rule 13d-1(k)(1) promulgated under the Securities Exchange Act of 1934, as amended, each of the undersigned acknowledges and agrees that the foregoing statement on this Schedule 13G is filed on behalf of the undersigned and that all subsequent amendments to this statement on Schedule 13G shall be filed on behalf of the undersigned without the necessity of filing additional joint acquisition statements. Each of the undersigned acknowledges that it shall be responsible for the timely filing of such amendments, and for the completeness and accuracy of the information concerning it contained therein, but shall not be responsible for the completeness and accuracy of the information concerning the others, except to the extent that he or it knows or has reason to believe that such information is inaccurate.

Dated: January 17, 2023

| BIOS SPECIAL | OPPORTUNITY FUND II. LP |
|--------------|-------------------------|
| | |

| $\mathbf{P}_{\mathbf{W}}$ | Bios Equity | Partnere | SOFI | ite | general | nartner |
|---------------------------|-------------|----------|------|-----|---------|---------|
| | | | | | | |

By: Bios Capital Management, LP, its general partner

By: Bios Advisors GP, LLC, its general partner

By: /s/ Aaron Glenn Louis Fletcher, Manager

BIOS SPECIAL OPPORTUNITY FUND I, LP

By: Bios Equity Partners SOF I, its general partner

By: Bios Capital Management, LP, its general partner

By: Bios Advisors GP, LLC, its general partner

By: /s/ Aaron Glenn Louis Fletcher, Manager

BIOS EQUITY PARTNERS SOF I

By: Bios Capital Management, LP, its general partner

By: Bios Advisors GP, LLC, its general partner

By: /s/ Aaron Glenn Louis Fletcher, Manager

PRECISE BIOS SPECIAL OPPORTUNITIES LLC

By: Bios Capital Management, LP, its investment adviser

By: Bios Advisors GP, LLC, its general partner

By: /s/ Aaron Glenn Louis Fletcher, Manager

JOSEPH O'DONNELL

By: Bios Capital Management, LP, its investment adviser

By: Bios Advisors GP, LLC, its general partner

By: /s/ Aaron Glenn Louis Fletcher, Manager

KLEINHEINZ FAMILY FOUNDATION FOR THE ARTS AND EDUCATION

By: Bios Capital Management, LP, its investment adviser

By: Bios Advisors GP, LLC, its general partner

By: /s/ Aaron Glenn Louis Fletcher, Manager

ROBERT VERNON VANMAN

By: Bios Capital Management, LP, its investment adviser

By: Bios Advisors GP, LLC, its general partner

By: /s/ Aaron Glenn Louis Fletcher, Manager

VANMAN CHARITABLE FOUNDATION

By: Bios Capital Management, LP, its investment adviser

| /s/ Aaron Glenn Louis Fletcher, Manager |
|--|
| OS CAPITAL MANAGEMENT, LP |
| Bios Advisors GP, LLC, its general partner |
| /s/ Aaron Glenn Louis Fletcher, Manager |
| OS ADVISORS GP, LLC |
| /s/ Aaron Glenn Louis Fletcher, Manager |
| RON G.L. FLETCHER |
| |

By: Bios Advisors GP, LLC, its general partner

By: /s/ Aaron Glenn Louis Fletcher