SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934

(Amendment No. 2)*

Perspective Therapeutics, Inc.

(Name of Issuer)

Common Stock, $0.001 par value

(Title of Class of Securities)

(CUSIP Number)

Eric M. Green
c/o Lantheus Holdings, Inc., 201 Burlington Road, South Building
Bedford, MA, 01730
(978) 671-8001

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

05/15/2024

(Date of Event Which Requires Filing of This Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box. ☐

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 ("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).

SCHEDULE 13D

CUSIP No.

1	Name of reporting person Lantheus Holdings, Inc.
2	Check the appropriate box if a member of a Group (See Instructions)

☐ (a)
☑ (b)

3 SEC use only

4 Source of funds (See Instructions)

WC

5 Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e)

☐

6 Citizenship or place of organization

DELAWARE

Number of Shares Beneficially Owned by Each Reporting Person With:	7	Sole Voting Power 0.00
	8	Shared Voting Power 11,440,513.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 11,440,513.00

11 Aggregate amount beneficially owned by each reporting person

11,440,513.00

12 Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

☐

13 Percent of class represented by amount in Row (11)

10.0 %

14 Type of Reporting Person (See Instructions)

CO

Comment for Type of Reporting Person: Shares reported as beneficially owned represent shares directly held by Lantheus Alpha Therapy, LLC ("Lantheus Alpha"), a wholly owned direct subsidiary of Lantheus Medical Imaging, Inc. ("Lantheus Medical"). Lantheus Medical is the sole member of Lantheus Alpha and a wholly-owned subsidiary of Lantheus Holdings, Inc. ("Lantheus Holdings"). Lantheus Holdings, Lantheus Medical and Lantheus Alpha may each be deemed to have shared voting and dispositive power over all of the shares of Common Stock held by Lantheus Alpha. The percent of class represented by the amount in Row (13) is based upon 114,151,663 shares of the Issuer's Common Stock issued and outstanding as of August 5, 2026, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2026. Effective June 14, 2024, the Issuer effected a 1-for-10 reverse stock split of its Common Stock (the "Reverse Stock Split"). The number of shares of Common Stock disclosed in this Statement have been adjusted to reflect the Reverse Stock Split.

SCHEDULE 13D

CUSIP No.

1 Name of reporting person

Lantheus Medical Imaging, Inc.

2 Check the appropriate box if a member of a Group (See Instructions)

☐ (a)
☑ (b)

3 SEC use only

4	Source of funds (See Instructions) AF	
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) ☐	
6	Citizenship or place of organization DELAWARE	
Number of Shares Beneficially Owned by Each Reporting Person With:	7	Sole Voting Power 0.00
	8	Shared Voting Power 11,440,513.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 11,440,513.00
11	Aggregate amount beneficially owned by each reporting person 11,440,513.00	
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) ☐	
13	Percent of class represented by amount in Row (11) 10.0 %	
14	Type of Reporting Person (See Instructions) CO	

Comment for Type of Reporting Person: Shares reported as beneficially owned represent shares directly held by Lantheus Alpha, a wholly owned direct subsidiary of Lantheus Medical. Lantheus Medical is the sole member of Lantheus Alpha and a wholly-owned subsidiary of Lantheus Holdings. Lantheus Holdings, Lantheus Medical and Lantheus Alpha may each be deemed to have shared voting and dispositive power over all of the shares of Common Stock held by Lantheus Alpha. The percent of class represented by the amount in Row (13) is based upon 114,151,663 shares of the Issuer's Common Stock issued and outstanding as of August 5, 2026, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2026. The number of shares of Common Stock disclosed in this Statement have been adjusted to reflect the Reverse Stock Split.

SCHEDULE 13D

CUSIP No.

1	Name of reporting person Lantheus Alpha Therapy, LLC
2	Check the appropriate box if a member of a Group (See Instructions) ☐ (a) ☑ (b)
3	SEC use only
4	Source of funds (See Instructions) AF
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) ☐

6	Citizenship or place of organization DELAWARE	
Number of Shares Beneficially Owned by Each Reporting Person With:	7	Sole Voting Power 0.00
	8	Shared Voting Power 11,440,513.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 11,440,513.00
11	Aggregate amount beneficially owned by each reporting person 11,440,513.00	
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) ☐	
13	Percent of class represented by amount in Row (11) 10.0 %	
14	Type of Reporting Person (See Instructions) OO	

Comment for Type of Reporting Person: Shares reported as beneficially owned represent shares directly held by Lantheus Alpha, a wholly owned direct subsidiary of Lantheus Medical. Lantheus Medical is the sole member of Lantheus Alpha and a wholly-owned subsidiary of Lantheus Holdings. Lantheus Holdings, Lantheus Medical and Lantheus Alpha may each be deemed to have shared voting and dispositive power over all of the shares of Common Stock held by Lantheus Alpha. The percent of class represented by the amount in Row (13) is based upon 114,151,663 shares of the Issuer's Common Stock issued and outstanding as of August 5, 2026, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2026. The number of shares of Common Stock disclosed in this Statement have been adjusted to reflect the Reverse Stock Split.

SCHEDULE 13D

Item 1. Security and Issuer

(a) Title of Class of Securities:

Common Stock, $0.001 par value

(b) Name of Issuer:

Perspective Therapeutics, Inc.

(c) Address of Issuer's Principal Executive Offices:

2401 Elliott Avenue, Suite 320, Seattle, WASHINGTON , 98121.

Item 1 Comment: This Amendment No. 2 ("Amendment No. 2"), is filed with respect to the shares of common stock, $0.001 par value per share (the "Common Stock"), of Perspective Therapeutics, Inc., a Delaware corporation (the "Issuer"). This Amendment No. 2 amends and supplements the initial statement on Schedule 13D filed by Lantheus Alpha and Lantheus Holdings (each of Lantheus Alpha, Lantheus Holdings and Lantheus Medical, a "Reporting Person" and, collectively, the "Reporting Persons") on February 1, 2024, as amended by Amendment No. 1 filed by Lantheus Alpha and Lantheus Holdings on March 8, 2024 (together, the "Original Statement" and, as amended by this Amendment No. 2, the "Statement"). This Amendment No. 2 is being filed to report the dilution of the Reporting Persons' beneficial ownership in the Common Stock since the date of filing of the Original Statement, as well as the disposition of shares of Common Stock by the Reporting Persons on August 31, 2026, September 1, 2026, September 2, 2026 and September 3, 2026. This Amendment No. 2 is also being filed to add Lantheus Medical as an additional Reporting Person. Except as specifically provided herein, this Amendment No. 2 does not modify any of the information previously reported in the Original Statement. Capitalized terms used but not defined in this Amendment No. 2 shall have the meanings ascribed to them in the Original Statement.

Item 2. Identity and Background

(a) Item 2(a) of the Original Statement is hereby amended and restated in its entirety as follows: The names of the persons filing this Statement are Lantheus Holdings, Inc., a Delaware corporation ("Lantheus Holdings"), Lantheus Medical Imaging, Inc., a Delaware corporation ("Lantheus Medical") and Lantheus Alpha Therapy, LLC, a Delaware limited liability company ("Lantheus Alpha").

(b) Item 2(b) of the Original Statement is hereby amended and restated in its entirety as follows: The address of the principal business and the principal office of each of the Reporting Persons is 201 Burlington Road, South Building, Bedford, MA 01730.

(c) Item 2(c) of the Original Statement is hereby amended and restated in its entirety as follows: The principal business of each of Lantheus Holdings and Lantheus Medical is the development, manufacturing, and commercialization of innovative diagnostic medical imaging diagnostics, radiotherapeutics and artificial intelligence solutions. The principal business of Lantheus Alpha is to enter into the transactions contemplated by the Investment Agreement. The name, business address, present principal occupation or employment and citizenship of each director and executive officer of Lantheus Holdings and Lantheus Medical are set forth on Schedule A to this Statement, and are incorporated herein by reference. Lantheus Medical is the sole member of Lantheus Alpha and a wholly-owned subsidiary of Lantheus Holdings.

(d) Item 2(d) of the Original Statement is hereby amended and restated in its entirety as follows: During the last five years, none of the Reporting Persons nor, to the knowledge of each of the Reporting Persons, any of the persons named on Schedule A attached hereto, has been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).

(e) Item 2(e) of the Original Statement is hereby amended and restated in its entirety as follows: During the last five years, none of the Reporting Persons nor, to the knowledge of each of the Reporting Persons, any of the persons named on Schedule A attached hereto, has been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree, or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

(f) Item 2(f) of the Original Statement is hereby amended and restated in its entirety as follows: Lantheus Holdings and Lantheus Medical were each incorporated, and Lantheus Alpha was organized, in Delaware.

Item 4. Purpose of Transaction

Item 4 of the Original Statement is hereby amended and supplemented to add the following: As of the date of this Amendment No. 2, the Reporting Persons are authorized to sell their shares of Common Stock subject to certain market conditions from time to time, in each case whether through privately negotiated transactions, open market transactions, block trades, registered offerings, underwritten transactions, accelerated transactions, derivative transactions, collars, prepaid forward transactions, swaps, exchange transactions, brokerage transactions or otherwise.

Item 5. Interest in Securities of the Issuer

(a) Item 5(a) of the Original Statement is hereby amended and restated in its entirety as follows: The percentage of beneficial ownership reported in this Item 5, and on each Reporting Person's cover page to this Statement, is based upon 114,151,663 shares of the Issuer's Common Stock issued and outstanding as of August 5, 2026, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2026. All of the shares of Common Stock reported herein, and on each Reporting Person's cover page to this statement, are as of September 3, 2026. The cover pages to this Statement are incorporated by reference in their entirety into this Statement. The number of shares of Common Stock disclosed in this Statement have been adjusted to reflect the Reverse Stock Split.

(b) Item 5(b) of the Original Statement is hereby amended and restated in its entirety as follows: Each Reporting Person beneficially owns an aggregate of 11,440,513 shares of Common Stock. This represents an aggregate beneficial ownership of 10.0% of the Common Stock. Shares reported as beneficially owned represent shares directly held by Lantheus Alpha, a wholly owned direct subsidiary of Lantheus Medical. Lantheus Medical is the sole member of Lantheus Alpha and a wholly-owned subsidiary of Lantheus Holdings. Lantheus Holdings, Lantheus Medical and Lantheus Alpha may each be deemed to have shared voting and dispositive power over all of the shares of Common Stock held by Lantheus Alpha. To the best knowledge of each of the Reporting Persons, none of the individuals listed on Schedule A hereto beneficially owns any of the Issuer's Common Stock.

(c) Item 5(c) of the Original Statement is hereby amended and restated in its entirety as follows: On August 31, 2026, September 1, 2026, September 2, 2026 and September 3, 2026, Lantheus Alpha sold 78,145, 35,769, 42,129 and 80,783 shares of Common Stock, respectively, for an average sales price per share of $3.143, $3.1193, $3.1147 and $3.1058, respectively. Except as otherwise specified in this Statement, none of the Reporting Persons nor, to the best knowledge of the Reporting Persons, any of the persons set forth on Schedule A hereto, has engaged in any transaction in the Common Stock during the past 60 days.

Item 7. Material to be Filed as Exhibits.

Item 7 of the Original Statement is hereby amended and supplemented to add the following: Schedule A Exhibit 99.10 Joint Filing Agreement as required by Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, as amended.

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.

Lantheus Holdings, Inc.

Signature:	/s/ Eric M. Green
Name/Title:	Eric M. Green, Assistant Corporate Secretary
Date:	09/04/2026

Lantheus Medical Imaging, Inc.

Signature:	/s/ Eric M. Green
Name/Title:	Eric M. Green, Assistant Corporate Secretary
Date:	09/04/2026

Lantheus Alpha Therapy, LLC

Signature:	/s/ Eric M. Green
Name/Title:	Eric M. Green, Assistant Corporate Secretary of Lantheus Medical Imaging, Inc., its sole member
Date:	09/04/2026