SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934

(Amendment No. 3)*

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)

09/21/2026

(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 8,739,011.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 8,739,011.00

11 Aggregate amount beneficially owned by each reporting person

8,739,011.00

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

☐

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

7.7 %

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 8,739,011.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 8,739,011.00
11	Aggregate amount beneficially owned by each reporting person 8,739,011.00	
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) ☐	
13	Percent of class represented by amount in Row (11) 7.7 %	
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 8,739,011.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 8,739,011.00
11	Aggregate amount beneficially owned by each reporting person 8,739,011.00	
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) ☐	
13	Percent of class represented by amount in Row (11) 7.7 %	
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. 3 ("Amendment No. 3"), 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. 3 amends and supplements the initial statement on Schedule 13D filed by Lantheus Alpha Therapy, LLC, a Delaware limited liability company ("Lantheus Alpha") and Lantheus Holdings, Inc., a Delaware corporation ("Lantheus Holdings" and, each of Lantheus Alpha, Lantheus Holdings and Lantheus Medical Imaging, Inc., a Delware corporation, referred to herein as "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 and Amendment No. 2 filed by the Reporting Persons on September 4, 2026 (together, the "Original Statement" and, as amended by this Amendment No. 3, the "Statement"). Except as specifically provided herein, this Amendment No. 3 does not modify any of the information previously reported in the Original Statement. Capitalized terms used but not defined in this Amendment No. 3 shall have the meanings ascribed to them in the Original Statement.

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 22, 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 8,739,011 shares of Common Stock. This represents an aggregate beneficial ownership of 7.7% 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 to this Statement beneficially owns any of the Issuer's Common Stock.

(c) Item 5(c) of the Original Statement is hereby supplemented as follows: On September 4, 2026, September 8, 2026, September 9, 2026, September 14, 2026, September 18, 2026, September 21, 2026 and September 22, 2026, Lantheus Alpha sold 167,149, 92,442, 65,500, 13,450, 750,000, 215,974 and 1,396,987 shares of Common Stock, respectively, on the open market for an average sales price per share of $3.1472, $3.133, $3.0098, $2.9531, $2.85, $2.9645 and $2.8976, 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 to this Statement, has engaged in any transaction in the Common Stock during the past 60 days.

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: 09/23/2026

Lantheus Medical Imaging, Inc.

Signature: /s/ Eric M. Green
Name/Title: Eric M. Green, Assistant Corporate Secretary
Date: 09/23/2026

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: 09/23/2026