FORM 3

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

OMB APPROVAL

OMB Number: 3235-0104 Estimated average burden

hours per response: 0.5

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INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934

or Section 30(h) of the Investment Company Act of 1940 3. Issuer Name and Ticker or Trading Symbol 2. Date of Event 1. Name and Address of Reporting Person* Requiring Statement (Month/Day/Year) Perspective Therapeutics, Inc. [CATX] Lantheus Alpha Therapy, LLC 01/22/2024 4. Relationship of Reporting Person(s) to 5. If Amendment, Date of Original (Last) (First) (Middle) Issuer Filed (Month/Day/Year) (Check all applicable) 201 BURLINGTON ROAD, SOUTH Director X 10% Owner **BUILDING** 6. Individual or Joint/Group Filing (Check Applicable Line) Officer (give Other (specify title below) below) Form filed by One Reporting Person (Street) Form filed by More than One BEDFORD MA 01730 Reporting Person (City) (State) (Zip) Table I - Non-Derivative Securities Beneficially Owned 2. Amount of Securities 1. Title of Security (Instr. 4) 3. Ownership 4. Nature of Indirect Beneficial Beneficially Owned (Instr. Form: Direct Ownership (Instr. 5) (D) or Indirect (I) (Instr. 5) 56,342,355 $D^{(1)}$ Common Stock Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) 3. Title and Amount of Securities 6. Nature of 1. Title of Derivative Security (Instr. 4) 2. Date Exercisable and Ownership **Underlying Derivative Security** Conversion Indirect Beneficial **Expiration Date** (Month/Day/Year) (Instr. 4) or Exercise Form: Ownership (Instr. Direct (D) Price of 5) Amount Derivative or Indirect or Security (I) (Instr. 5) Number **Expiration** Date Exercisable Date Title **Shares** 1. Name and Address of Reporting Person Lantheus Alpha Therapy, LLC (Last) (First) (Middle) 201 BURLINGTON ROAD, SOUTH BUILDING

(Street) BEDFORD MA 01730

(First)

201 BURLINGTON ROAD, SOUTH BUILDING

MA

(State)

1. Name and Address of Reporting Person Lantheus Holdings, Inc.

01730

(Zip)

(Middle)

(City) (State) (Zip)

Explanation of Responses:

(Street)
BEDFORD

(City)

Chief Administrative
Officer and General
Counsel, Lantheus
/s/ Daniel Niedzwiecki,

Chief Administrative

Officer and General Counsel, Lantheus

Counsel, Lantheus Holdings

** Signature of Reporting

Person

Date

02/01/2024

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- * If the form is filed by more than one reporting person, see Instruction 5 (b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.