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

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**SCHEDULE 13D**

Under the Securities Exchange Act of 1934  
(Amendment No. 1)

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**Progenics Pharmaceuticals, Inc.**  
(Name of Issuer)

**Common Stock, par value \$0.0013 per share**  
(Title of Class of Securities)

743187106  
(CUSIP Number)

**Michael P. Duffy**  
**Lantheus Holdings, Inc.**  
331 Treble Cove Road  
**North Billerica, Massachusetts 01862**  
(978) 671-8408

*Copies to:*

**Morton A. Pierce, Esq.**  
**Bryan J. Luchs, Esq.**  
**White & Case LLP**  
1221 Avenue of the Americas  
New York, New York 10020  
(212) 819-8200

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

**June 19, 2020**  
(Date of Event Which Requires Filing of this Statement)

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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.

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**Note:** Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7 for other parties to whom copies are to be sent.

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\* 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 "Exchange Act") or otherwise subject to the liabilities of that section of the Exchange Act but shall be subject to all other provisions of the Exchange Act (however, see the Notes).

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(1)	Names of Reporting Persons Lantheus Holdings, Inc.	
(2)	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
(3)	SEC Use Only	
(4)	Source of Funds (See Instructions) OO	
(5)	Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e): <input type="checkbox"/>	
(6)	Citizenship or Place of Organization Delaware	
Number of Shares Beneficially Owned by Each Reporting Person With	(7)	Sole Voting Power 1,000 (see Item 4)
	(8)	Shared Voting Power 0
	(9)	Sole Dispositive Power 1,000 (see Item 4)
	(10)	Shared Dispositive Power 0
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person 1,000 (see Item 4)	
(12)	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) <input type="checkbox"/>	
(13)	Percent of Class Represented by Amount in Row (11) 100.0%	
(14)	Type of Reporting Person (See Instructions) CO	

**SCHEDULE 13D**

This Amendment No. 1 to Schedule 13D (this "Amendment") relates to common stock, par value \$0.0013 per share, of Progenics Pharmaceuticals, Inc., a Delaware corporation ("Progenics" or the "Issuer" and, such common stock, the "Progenics Common Stock"), and amends and supplements the initial statement on Schedule 13D filed by the Reporting Person on April 14, 2020 (the "Original Schedule 13D" and, together with this Amendment, the "Statement"). The Original Schedule 13D remains in effect except to the extent it is amended, restated or superseded by information contained in this Amendment. Unless otherwise specified, capitalized terms used but not otherwise defined in this Statement shall have the meanings ascribed to them in the Original Schedule 13D.

On June 19, 2020 (the "Closing Date"), pursuant to the Merger Agreement, the Reporting Person completed the previously announced acquisition of the Issuer by means of a merger of Merger Sub with and into Issuer (the "Merger"), with the Issuer surviving the Merger as a wholly owned subsidiary of the Reporting Person (the "Surviving Corporation"). Due to the completion of the Merger, as described here, this Amendment is the final amendment to the Original Schedule 13D.

The descriptions of the Merger Agreement, Support Agreement and CVR Agreement and the transactions contemplated thereby in this Statement and the Original Schedule 13D are not complete and are subject to and qualified in their entirety by reference to the Merger Agreement and the Support Agreement, copies of which are filed as Exhibits to the Original Schedule 13D and are incorporated herein by reference, and the CVR Agreement, a copy of which is filed as Exhibit 99.5 to this Statement and is incorporated herein by reference.

**Item 2. Identity and Background**

The response to Item 2 of the Original Schedule 13D is hereby amended and supplemented by replacing the paragraph under the subheading "(d) and (e)" with the following:

Schedule A to the Original Schedule 13D is hereby amended and restated in the form attached hereto, which is incorporated herein by reference. During the last five years, neither Lantheus Holdings nor, to the knowledge of Lantheus Holdings, any of the persons named on Schedule A attached hereto, has been (i) convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors) or (ii) 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.

**Item 3. Source and Amount of Funds or Other Consideration**

The response to Item 3 of the Original Schedule 13D is hereby amended and supplemented by adding the following at the end thereof:

On June 19, 2020, pursuant to the Merger Agreement, Merger Sub merged with and into Progenics, with Progenics surviving as a wholly owned subsidiary of Lantheus Holdings. For a description of the merger consideration (including the treatment of fractional shares) and treatment of stock options in connection with the Merger, see Item 4 below, which description is incorporated herein by reference in this response to Item 3. The source of funds for any cash payments in lieu of fractional shares as part of the merger consideration was cash on hand.

**Item 4. Purpose of Transaction**

The response to Item 4 of the Original Schedule 13D is hereby amended and supplemented by adding the following at the end thereof:

*Closing of the Merger*

On June 19, 2020, pursuant to the Merger Agreement, the Reporting Person completed the previously announced acquisition of the Issuer by means of the Merger, with Issuer surviving the Merger as the Surviving Corporation. In connection with the closing of the Merger, on June 19, 2020, Lantheus Holdings entered into the CVR Agreement with Computershare, Inc., a Delaware corporation, and its wholly owned subsidiary, Computershare Trust Company, N.A., a federally chartered trust company, collectively, as rights agent.

*Merger Consideration*

At the effective time of the Merger, each share of Progenics Common Stock issued and outstanding immediately prior to such time (other than certain excluded shares as described in the Merger Agreement) was converted into the right to receive (i) 0.31 of a share of Lantheus Holdings common stock and (ii) a CVR issued by Lantheus Holdings subject to and in accordance with the CVR Agreement described above. No fractional shares of Lantheus Holdings common stock were or will be issued in the Merger, and Progenics' stockholders received or will receive cash in lieu of any fractional shares of Lantheus Holdings common stock. Further, at the effective time of the Merger, the 1,000 shares of common stock, par value \$0.01 per share, of Merger Sub that were issued and outstanding immediately prior to the effective time of the Merger were converted into and became 1,000 shares of common stock, par value \$0.01 per share, of the Surviving Corporation.

### *Treatment of Stock Options*

At the effective time of the Merger, the holder of each in-the-money Progenics Stock Option received in exchange for each such in-the-money option (i) a Lantheus Stock Option converted based on the Exchange Ratio and (ii) a vested or unvested CVR depending on whether the underlying option was vested. Holders of out-of-the-money Progenics Stock Options received Lantheus Stock Options converted based on an exchange ratio adjusted based on actual trading prices of common stock of Progenics and Lantheus Holdings prior to the effective time of the Merger.

### *Lantheus Holdings Corporate Matters*

On January 19, 2020, the Lantheus Board appointed Dr. Gérard Ber and Mr. Heinz Mäusli, who were members of the board of directors of Progenics up until the effective time of the Merger, to serve on the Lantheus Board.

### *Progenics Corporate Matters*

In connection with the completion of the Merger, Progenics notified The NASDAQ Stock Market (“NASDAQ”) that the transaction had closed and requested that NASDAQ (i) suspend trading of Progenics Common Stock on NASDAQ effective June 22, 2020 and (ii) file with the SEC a notification on Form 25 to delist the Progenics Common Stock from NASDAQ and deregister Progenics Common Stock under Section 12(b) of the Securities Exchange Act of 1934 (the “Exchange Act”). As a result, Progenics Common Stock will no longer be listed on NASDAQ. Additionally Progenics intends to file with the SEC a certification and notice on Form 15 under the Exchange Act requesting the deregistration of Progenics Common Stock under Section 12(g) of the Exchange Act and the suspension of Progenics’ reporting obligations under Sections 13 and 15(d) of the Exchange Act as soon as practicable after the effective time of the Merger. As of the effective time of the Merger, Progenics’ directors ceased serving as directors of Progenics. Pursuant to the Merger Agreement, as of the effective time of the Merger, Mary Anne Heino, Robert J. Marshall Jr. and Michael P. Duffy, the directors of Merger Sub immediately prior to the effective time of the Merger, became the directors of Progenics as the surviving entity in the Merger.

Pursuant to the Merger Agreement, at the effective time of the Merger, Progenics’ certificate of incorporation and bylaws, as in effect immediately prior to the effective time of the Merger, were amended and restated in their entirety. The amended and restated certificate of incorporation is filed hereto as Exhibit 99.6 and is incorporated herein by reference. The amended and restated bylaws of Progenics is filed hereto as Exhibit 99.7 and is incorporated herein by reference.

### **Item 5. Interest in Securities of the Issuer**

The response to Item 5 is hereby amended and restated in its entirety as follows:

(a) and (b):

Items 7 through 13 of the cover page of this Statement are incorporated herein by reference.

(c):

Except as set forth in this Amendment with reference to the Merger Agreement and the Support Agreement and as set forth in this Item 5, neither Lantheus Holdings nor, to the knowledge of Lantheus Holdings, any of the persons set forth on Schedule A hereto has effected any transaction in the shares of Progenics Common Stock during the past 60 days.

(d):

To the knowledge of Lantheus Holdings, upon completion of the Merger, no person other than Lantheus Holdings has the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the securities of Progenics reported herein.

(e):

Not applicable.

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**Item 7. Material to be Filed as Exhibits**

The following exhibit references are added to Item 7 of the Original Schedule 13D to read in their entirety as follows:

- 99.5 Contingent Value Rights Agreement (Incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K of Lantheus Holdings, Inc., filed on June 22, 2020)
- 99.6 Fourth Amended and Restated Certificate of Incorporation of Progenics Pharmaceuticals, Inc. (Incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed by Progenics Pharmaceuticals, Inc. on June 22, 2020)
- 99.7 Amended and Restated Bylaws of Progenics Pharmaceuticals, Inc. (Incorporated by reference to Exhibit 3.2 to the Current Report on Form 8-K filed by Progenics Pharmaceuticals, Inc. on June 22, 2020)

**SIGNATURES**

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.

By: /s/ Michael P. Duffy

Name: Michael P. Duffy

Title: Senior Vice President and General Counsel

Date: June 23, 2020

**SCHEDULE A****DIRECTORS AND EXECUTIVE OFFICERS OF THE REPORTING PERSON**

The name, present principal occupation or employment and citizenship of each director and executive officer of Lantheus Holdings, Inc. are set forth below. The business address for each director and executive officer is c/o Lantheus Holdings, Inc., 331 Treble Cove Road, North Billerica, Massachusetts 01862.

*Board of Directors of Lantheus Holdings, Inc.*

<b>Name</b>	<b>Present Principal Occupation or Employment</b>	<b>Citizenship</b>
Brian Markison (Non-Executive Chairman of the Board of Directors)	Chief Executive Officer and Director of Osmotica Holdings, SCSp	United States
Mary Anne Heino	President and Chief Executive Officer of Lantheus Holdings, Inc.	United States
Dr. Gérard Ber	Former Chief Operating Officer of Advanced Accelerator Applications S.A.	Switzerland
Samuel Leno	Former Executive Vice President and Chief Operations Officer, Boston Scientific	United States
Heinz Mäusli	Former Chief Financial Officer of Advanced Accelerator Applications S.A.	Switzerland
Julie McHugh	Former Chief Operating Officer, Endo Health Solutions, Inc.	United States
Gary J. Pruden	Former Executive Vice President, Worldwide Chairman, Medical Devices, Johnson and Johnson	United States
Dr. Frederick Robertson	Venture Partner, Baird Capital	United States
Dr. James H. Thrall	Distinguished Juan M. Taveras Professorship of Radiology, Harvard Medical School	United States

*Executive Officers of Lantheus Holdings, Inc.*

<b>Name</b>	<b>Present Principal Occupation or Employment</b>	<b>Citizenship</b>
Mary Anne Heino	President and Chief Executive Officer	United States
Robert J. Marshall, Jr.	Chief Financial Officer	United States
John Bolla	Chief Operations Officer	United States
Paul Blanchfield	Chief Commercial Officer	United States
Dr. Istvan Molnar	Chief Medical Officer	United States
Michael P. Duffy	Senior Vice President, Law and Public Policy and General Counsel	United States
Etienne Montagut	Senior Vice President, Corporate Development	France
Carol Walker	Senior Vice President, Quality	United States