

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

SCHEDULE TO
TENDER OFFER STATEMENT UNDER SECTION 14(D)(1)
OR 13(E)(1) OF THE SECURITIES EXCHANGE ACT OF 1934
(Amendment No. 4)

DIMENSION THERAPEUTICS, INC.
(Name of Subject Company (Issuer))

MYSTIC RIVER MERGER SUB INC.
a wholly-owned subsidiary of

ULTRAGENYX PHARMACEUTICAL INC.
(Names of Filing Persons (Offeror))

Common Stock, Par Value \$0.0001 Per Share
(Title of Class of Securities)

25433V105
(Cusip Number of Class of Securities)

Karah Parschauer
Executive Vice President and General Counsel
Ultragenyx Pharmaceutical Inc.
60 Leveroni Court
Novato, California 94949
415.483.8800

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications on Behalf of Filing Persons)

Copies to:

Graham Robinson
Laura Knoll
Skadden, Arps, Slate, Meagher & Flom LLP
500 Boylston Street
Boston, MA 02210
(617) 573-4850

CALCULATION OF FILING FEE

Transaction Valuation*	Amount of Filing Fee**
\$169,070,280.00	\$21,049.25

* Estimated for purposes of calculating the filing fee only. The transaction valuation was calculated as the sum of (i) 25,205,395 outstanding shares of common stock, par value \$0.0001 per share (the "Shares"), of Dimension Therapeutics, Inc. ("Dimension") multiplied by \$6.00, (ii) 2,966,053 Shares issuable pursuant to outstanding stock options that have vested (or are anticipated to vest prior to the completion of the transaction) multiplied by \$6.00 and (iii) 6,932 Shares issuable pursuant to outstanding unvested restricted stock that are anticipated to vest prior to the completion of the transaction multiplied by \$6.00. The calculation of the filing fee is based on information provided by Dimension as of October 2, 2017.

** The filing fee was calculated in accordance with Rule 0-11 under the Securities Exchange Act of 1934, as amended, and Fee Rate Advisory No. 1 for Fiscal Year 2018, issued August 24, 2017, by multiplying the transaction value by 0.00012450.

Check box if any part of the fee is offset as provided by Rule 0-11(a)(2) and identify the filing with which the offsetting fee was previously paid. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

Amount Previously Paid: \$21,049.25 Filing Party: Mystic River Merger Sub Inc. and Ultragenyx Pharmaceutical Inc.

Form or Registration No.: Schedule TO Date Filed: October 10, 2017

Check the box if the filing relates solely to preliminary communications made before the commencement of a tender offer.

Check the appropriate boxes below to designate any transactions to which the statement relates:

- third-party tender offer subject to Rule 14d-1.
- issuer tender offer subject to Rule 13e-4.

going-private transaction subject to Rule 13e-3.

amendment to Schedule 13D under Rule 13d-2.

Check the following box if the filing is a final amendment reporting the results of the tender offer.

This Amendment No. 4 (this “Amendment”) amends and supplements the Tender Offer Statement on Schedule TO filed by Mystic River Merger Sub Inc., a Delaware corporation (“Purchaser”), and Ultragenyx Pharmaceutical Inc., a Delaware corporation (“Parent”), with the U.S. Securities and Exchange Commission on October 10, 2017 (together with any subsequent amendments and supplements thereto, the “Schedule TO”). The Schedule TO relates to the offer by Purchaser to purchase all outstanding shares of common stock, \$0.0001 par value per share (“Shares”), of Dimension Therapeutics, Inc., a Delaware corporation (“Dimension”), at a price of \$6.00 per Share, net to the holder in cash, without interest upon the terms and subject to the conditions described in the Offer to Purchase dated October 10, 2017 (together with any amendments or supplements thereto, the “Offer to Purchase”) and in the accompanying Letter of Transmittal (together with any amendments or supplements thereto, the “Letter of Transmittal,” and with the Offer to Purchase, the “Offer”), which are annexed to and filed with this Schedule TO as Exhibits (a)(1)(A) and (a)(1)(B), respectively. Purchaser is a wholly-owned subsidiary of Parent. This Amendment is being filed on behalf of Parent and Purchaser. Unless otherwise indicated, references to sections in this Schedule TO are references to sections of the Offer to Purchase.

Amendments to the Offer to Purchase

Items 1 through 11.

The information set forth in the Offer to Purchase under “The Tender Offer—Section 15—Certain Legal Matters; Regulatory Approvals” and Items 1 through 11 of the Schedule TO, to the extent such Items incorporate by reference the information contained in the Offer to Purchase, are hereby amended and supplemented by replacing in its entirety the paragraph entitled “Legal Proceedings Related to the Tender Offer” which begins on page 51 of the Offer to Purchase with the following four paragraphs:

“Legal Proceedings Related to the Tender Offer

On October 11, 2017, a purported stockholder of Dimension filed a putative class action lawsuit against Dimension, its directors, Parent and Purchaser in the United States District Court for the District of Massachusetts, captioned *Louis Scarantino v. Dimension Therapeutics, Inc. et al.*, Case No. 1:17-cv-11964 (the “Scarantino Complaint”). Among other things, the Scarantino Complaint alleges that Dimension, and its directors in their capacity as controlling persons, violated federal securities laws by failing to disclose material information in the Schedule 14D-9. In addition, the Scarantino Complaint alleges that Parent acted as a controlling person of Dimension within the meaning and in violation of Section 20(a) of the Exchange Act to influence and control the dissemination of the allegedly defective Schedule 14D-9. The Scarantino Complaint seeks, among other things, an order enjoining consummation of the Transactions, rescission of the Transactions if they have already been consummated or rescissory damages, an order directing the directors of Dimension to file a solicitation statement that does not contain any untrue statement of material fact and that states all material facts required in order to make the statements contained therein not misleading, a declaration that the defendants violated Sections 14(e), 14(d), 20(a) and Rule 14d-9 of the Exchange Act, and an award of plaintiffs’ costs, including reasonable allowance for attorneys’ fees and experts’ fees.

On October 15, 2017, another purported stockholder of Dimension filed a putative class action lawsuit against Dimension and its directors in the United States District Court for the District of Massachusetts, captioned *Michael Rubin v. Dimension Therapeutics, Inc. et al.*, Case No. 1:17-cv-11992 (the “Rubin Complaint”). Among other things, the Rubin Complaint alleges that Dimension, and its directors in their capacity as controlling persons, violated federal securities laws by failing to disclose material information in the Schedule 14D-9. The Rubin Complaint seeks, among other things, an order enjoining consummation of the Transactions, rescission of the Transactions if they have already been consummated or rescissory damages, and an award of plaintiffs’ costs, including reasonable allowance for attorneys’ fees and experts’ fees. Neither Parent nor Purchaser are named as a defendant in the Rubin Complaint.

On October 19, 2017, another purported stockholder of Dimension filed a putative class action lawsuit against Dimension and its directors in the United States District Court for the District of Massachusetts, captioned *Brian*

Eliyahou v. Dimension Therapeutics, Inc. et al., Case No. 1:17-cv-12052 (the “Eliyahou Complaint”). Among other things, the Eliyahou Complaint alleges that Dimension’s directors breached their fiduciary duties by entering into the Transactions and that, along with Dimension, in their capacity as controlling persons, violated federal securities laws by failing to disclose material information in the Schedule 14D-9. The Eliyahou Complaint seeks, among other things, an order enjoining consummation of the Transactions, rescission of the Transactions if they have already been consummated or rescissory damages, a decree that the Merger Agreement is unlawful and unenforceable, and an award of plaintiffs’ costs, including reasonable allowance for attorneys’ fees and experts’ fees. Neither Parent nor Purchaser are named as a defendant in the Eliyahou Complaint.

Dimension believes that the Scarantino Complaint, the Rubin Complaint and the Eliyahou Complaint are without merit and that no further disclosure is required to supplement the Schedule 14D-9 under applicable laws.”

SIGNATURE

After due 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.

Dated: October 20, 2017

MYSTIC RIVER MERGER SUB INC.

By: /s/ Karah Parschauer

Name: Karah Parschauer

Title: *Vice President and Secretary*

ULTRAGENYX PHARMACEUTICAL INC.

By: /s/ Shalini Sharp

Name: Shalini Sharp

Title: *Executive Vice President and Chief Financial Officer*

EXHIBIT INDEX

Index No.

- (a)(1)(A) Offer to Purchase, dated October 10, 2017*
- (a)(1)(B) Form of Letter of Transmittal*
- (a)(1)(C) Form of Notice of Guaranteed Delivery*
- (a)(1)(D) Form of Letter to Brokers, Dealers, Commercial Banks, Trust Companies and Other Nominees*
- (a)(1)(E) Form of Letter to Clients for Use by Brokers, Dealers, Commercial Banks, Trust Companies and Other Nominees*
- (a)(1)(F) Form of Summary Advertisement, published October 10, 2017 in The New York Times*
- (a)(5)(A) Press Release, dated September 18, 2017 (incorporated by reference to Exhibit 99.1 to the Current Report on Form 8-K filed by Parent with the Securities and Exchange Commission on September 18, 2017)*
- (a)(5)(B) Investor Presentation, dated September 18, 2017 (incorporated by reference to Exhibit 99.2 to the Current Report on Form 8-K filed by Parent with the Securities and Exchange Commission on September 18, 2017)*
- (a)(5)(C) Transcript of Parent Investor Conference Call held on September 18, 2017 (incorporated by reference to Exhibit 99.1 to the Current Report on Form 8-K filed by Parent with the Securities and Exchange Commission on September 19, 2017)*
- (a)(5)(D) Transcript of Parent presentation on September 22, 2017 (incorporated by reference to Exhibit 99.1 to the Current Report on Form 8-K filed by Parent with the Securities and Exchange Commission on September 25, 2017)*
- (a)(5)(E) Press Release, dated October 2, 2017 (incorporated by reference to Exhibit 99.1 to the Current Report on Form 8-K filed by Parent with the Securities and Exchange Commission on October 2, 2017)*
- (a)(5)(F) Joint Press Release of Parent and Dimension, dated October 3, 2017 (incorporated by reference to Exhibit 99.1 to the Current Report on Form 8-K filed by Parent with the Securities and Exchange Commission on October 3, 2017)*
- (d)(1) Agreement and Plan of Merger, dated as of October 2, 2017, by and among Dimension, Parent and Purchaser (incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K filed by Parent with the Securities and Exchange Commission on October 3, 2017)*
- (d)(2) Confidentiality Agreement, dated September 19, 2017, between Dimension and Parent (incorporated by reference to Exhibit (e)(2) to the Schedule 14D-9 filed by Dimension with the Securities and Exchange Commission on October 10, 2017)*
- (d)(3) Scientific Advisory Council Agreement, dated as of January 6, 2015, between Dr. Emil Kakkis and Dimension*

* Previously filed.