UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-1 REGISTRATION STATEMENT

UNDER
THE SECURITIES ACT OF 1933

Ultragenyx Pharmaceutical Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)

2834

(Primary Standard Industrial Classification Code Number)

27-2546083 (I.R.S. Employer Identification Number)

60 Leveroni Court Novato, CA 94949 (415) 483-8800

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Emil D. Kakkis, M.D., Ph.D.
President and Chief Executive Officer
Ultragenyx Pharmaceutical Inc.
60 Leveroni Court
Novato, CA 94949
(415) 483-8800

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Ryan A. Murr, Esq.
Lisa M. Kahle, Esq.
Ropes & Gray LLP
Three Embarcadero Center, Third Floor
San Francisco, CA 94111
Telephone: (415) 315-6300
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Shalini Sharp Chief Financial Officer Ultragenyx Pharmaceutical Inc. 60 Leveroni Court Novato, CA 94949 Telephone: (415) 483-8800 Facsimile: (415) 483-8810 B. Shayne Kennedy, Esq. Brian J. Cuneo, Esq. Latham & Watkins LLP 650 Town Center Drive, 20th Floor Costa Mesa, CA 92626 Telephone: (714) 540-1235 Facsimile: (714) 755-8290

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box.
If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \boxtimes 333-192244
If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \Box
If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \Box
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer \square Accelerated filer \square Non-accelerated filer \boxtimes (Do not check if a smaller reporting company) Smaller reporting company \square

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered (1)	Proposed maximum aggregate offering price per share	Proposed maximum aggregate offering price	Amount of registration fee (2)
Common Stock, \$0.001 par value per share	1,059,907	\$21.00	\$22,258,047	\$2,867

- (1) Represents only the additional number of shares being registered and includes 864,054 shares of common stock issuable upon exercise of the underwriters' option to purchase additional shares. Does not include the securities that the Registrant previously registered on the Registration Statement on Form S-1 (File No. 333-192244).
- (2) The registration fee is calculated in accordance with Rule 457(a) under the Securities Act of 1933, as amended, based on the proposed maximum aggregate offering price. The registrant previously registered securities at an aggregate offering price not to exceed \$111,290,320 on a Registration Statement on Form S-1 (File No. 333-192244), which was declared effective by the Securities and Exchange Commission on January 30, 2014. In accordance with Rule 462(b) under the Securities Act, an additional amount of securities having a proposed maximum aggregate offering price of \$22,258,047 is hereby registered, which includes shares issuable upon the exercise of the underwriters' option to purchase additional shares.

The Registration Statement shall become effective upon filing in accordance with Rule 462(b) promulgated under the Securities Act of 1933, as amended.

Explanatory note and incorporation by reference

This Registration Statement is being filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended (the "Securities Act"). The contents of the Registration Statement on Form S-1, as amended (File No. 333-192244) filed by Ultragenyx Pharmaceutical Inc. with the Securities and Exchange Commission (the "Commission") pursuant to the Securities Act, which was declared effective by the Commission on January 30, 2014, are incorporated by reference into this Registration Statement.

The required opinion and consents are listed on an Exhibit Index attached hereto and filed herewith.

Signatures

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Novato, State of California, on January 30, 2014.

ULTRAGENYX PHARMACEUTICAL INC.

By: /s/ Emil D. Kakkis

Emil D. Kakkis, M.D., Ph.D. President and Chief Executive Officer

Pursuant to the requirements of the Securities Act, this Registration Statement on Form S-1 has been signed by the following persons in the capacities and on the dates indicated.

	Signature	Title	Date
	/s/ EMIL D. KAKKIS Emil D. Kakkis, M.D., Ph.D.	Director, President and Chief Executive Officer (Principal Executive Officer)	January 30, 2014
	/s/ SHALINI SHARP Shalini Sharp	Senior Vice President, Chief Financial Officer (Principal Financial and Accounting Officer)	January 30, 2014
	* Eran Nadav, Ph.D.	Chairman of the Board	January 30, 2014
	* William Aliski	Director	January 30, 2014
_	* Mårten Steen, M.D., Ph.D.	_ Director	January 30, 2014
	/s/ MATTHEW FUST Matthew Fust	_ Director	January 30, 2014
	/s/ CLAY SIEGALL Clay Siegall, Ph.D.	Director	January 30, 2014
*By:	/s/ SHALINI SHARP Shalini Sharp Attorney-in-fact		

Exhibit index

Exhibit <u>number</u>	Description of exhibit
5.1	Opinion of Ropes & Gray LLP.
23.1	Consent of Ernst & Young LLP.
23.2	Consent of Ropes & Gray LLP (included in Exhibit 5.1).
24.1*	Power of Attorney.

^{*} Previously filed on the signature page to the Registrant's Registration Statement on Form S-1, as amended (File No. 333-192244), originally filed with the Securities and Exchange Commission on November 8, 2013 and incorporated by reference herein.



ROPES & GRAY LLP THREE EMBARCADERO CENTER SAN FRANCISCO, CA 94111-4006 WWW.ROPESGRAY.COM

January 30, 2014

Ultragenyx Pharmaceutical Inc. 60 Leveroni Court Novato, California 94949

Ladies and Gentlemen:

We have acted as counsel to Ultragenyx Pharmaceutical Inc., a Delaware corporation (the "<u>Company</u>") in connection with the (i) Registration Statement on Form S-1 (File No. 333-192244) (as amended through the date hereof, the "<u>Initial Registration Statement</u>") filed by the Company with the Securities and Exchange Commission (the "<u>Commission</u>") under the Securities Act of 1933, as amended (the "<u>Securities Act</u>"), and (ii) a second Registration Statement on Form S-1 filed by the Company pursuant to Rule 462(b) under the Securities Act (the "<u>462(b) Registration Statement</u>," and together with the Initial Registration Statement, the "<u>Registration Statement</u>"). This opinion letter is furnished to you in connection with the filing of the 462(b) Registration Statement, relating to the registration of up to 1,059,907 shares of the common stock, \$0.001 par value per share, of the Company (the "<u>Securities</u>"), which includes shares issuable upon the exercise of the underwriters' option to purchase additional shares, if any. The Securities are proposed to be sold pursuant to an underwriting agreement (the "<u>Underwriting Agreement</u>") by and between the Company and J.P. Morgan Securities LLC and Morgan Stanley & Co. LLC, acting as representatives of the several underwriters named therein.

In connection with this opinion letter, we have examined such certificates, documents and records and have made such investigation of fact and such examination of law as we have deemed appropriate in order to enable us to render the opinions set forth herein. In conducting such investigation, we have relied, without independent verification, upon certificates of officers of the Company, public officials and other appropriate persons.

The opinions expressed below are limited to the Delaware General Corporation Law.

Based upon and subject to the foregoing, we are of the opinion that the Securities have been duly authorized and, when issued and delivered pursuant to the Underwriting Agreement and against payment of the consideration set forth therein, will be validly issued, fully paid and non-assessable.

We hereby consent to your filing this opinion as an exhibit to the 462(b) Registration Statement and to the use of our name under the caption "Legal Matters" in the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Ropes & Gray LLP

Ropes & Gray LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-1 filed pursuant to Rule 462(b) of the Securities Act of 1933, as amended, of Ultragenyx Pharmaceutical, Inc. (a development stage company) of our report dated October 3, 2013 (except for the last paragraph of Note 2, as to which the date is January 17, 2014), with respect to the financial statements of Ultragenyx Pharmaceutical, Inc. (a development stage company) included in Amendment No. 3 to the Registration Statement (Form S-1 No. 333-192244) and the related Prospectus of Ultragenyx Pharmaceutical, Inc. (a development stage company) for the registration of its common stock. We also consent to the reference to our firm under the caption "Experts" in such Registration Statement.

/s/ Ernst & Young LLP Redwood City, California January 30, 2014