UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-1 REGISTRATION STATEMENT

Under
The Securities Act of 1933

Monte Rosa Therapeutics, Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)

2836 (Primary Standard Industrial Classification Code Number) 81-3766197 (I.R.S. Employer Identification Number)

Monte Rosa Therapeutics, Inc. 645 Summer Street, Suite 102 Boston, MA 02210 (617) 949-2643

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

Markus Warmuth, M.D.
President and Chief Executive Officer
Monte Rosa Therapeutics, Inc.
645 Summer Street, Suite 102
Boston, MA 02210
(617) 949-2643

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

Copies to:

Robert E. Puopolo Marishka DeToy Goodwin Procter LLP 100 Northern Avenue Boston, Massachusetts 02210 (617) 570-1000 Nathan Ajiashvili Alison Haggerty Latham & Watkins LLP 1271 Avenue of Americas New York, New York 10020 (212) 906-1200

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

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, as amended, check the following box. \Box

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \boxtimes 333-256773

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.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer Accelerated Filer

Smaller Reporting Company

 \times \times

Emerging Growth Company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided to Section 7(a)(2)(B) of the Securities Act. \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, par value \$0.0001 per share	2,242,500	\$19.00	\$42,607,500.00	\$4,648.48

- Represents only the additional number of shares being registered and includes 292,500 shares of common stock issuable upon exercise of the underwriters' option to purchase additional shares to cover over-allotments, if any. Does not include the securities that the Registrant previously registered on the Registration Statement on Form S-1 (File No. 333-256773).
- 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 \$213,037,500 on a Registration Statement on Form S-1 (File No. 333-256773), which was declared effective by the Securities and Exchange Commission on June 23, 2021. In accordance with Rule 462(b) under the Securities Act, an additional amount of securities having a proposed maximum aggregate offering price of \$42,607,500.00 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"), for the sole purpose of increasing the aggregate number of shares of common stock offered by Monte Rosa Therapeutics, Inc. (the "Registrant") by 2,242,500 shares, 292,500 of which are subject to purchase upon exercise of the underwriters' option to purchase additional shares of the Registrant's common stock. The contents of the Registration Statement on Form S-1, as amended(File No. 333-256773), filed by the Registrant with the Securities and Exchange Commission (the "Commission") pursuant to the Securities Act, which was declared effective by the Commission on June 23, 2021, are incorporated by reference into this Registration Statement.

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

EXHIBIT INDEX

Exhibit No.	Exhibit Index	
5.1	Opinion of Goodwin Procter LLP	
23.1	Consent of Deloitte & Touche LLP, Independent Registered Public Accounting Firm	
23.2	Consent of Goodwin Procter 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. 333-256773), originally filed with the Securities and Exchange Commission on June 4, 2021 and incorporated by reference herein.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, Monte Rosa Therapeutics, Inc. 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 Boston, Commonwealth of Massachusetts, on the 23rd day of June, 2021.

Monte Rosa Therapeutics, Inc.

By: /s/ Markus Warmuth

Name: Markus Warmuth

Title: President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, 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/ Markus Warmuth Markus Warmuth	President, Chief Executive Officer and Director (Principal Executive Officer)	June 23, 2021
/s/ Ajim Tamboli Ajim Tamboli	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	June 23, 2021
* Alexander Mayweg	- Director	June 23, 2021
* Bradley J. Bolzon	Director	June 23, 2021
* Ali Behbahani	- Director	June 23, 2021
* Kimberly L. Blackwell	- Director	June 23, 2021
* Andrew Schiff	- Director	June 23, 2021
* Chandra P. Leo	- Director	June 23, 2021
* Christine Siu	Director	June 23, 2021
*By: /s/ Markus Warmuth		

Name: Markus Warmuth Title: Attorney-in-Fact June 23, 2021

Monte Rosa Therapeutics, Inc. 645 Summer Street, Suite 102 Boston, MA 02210

Re: Securities Registered under Registration Statement on Form S-1

We have acted as counsel to you in connection with your filing of (i) a Registration Statement on Form S-1 (File No. 333-256773) (as amended or supplemented, the "Initial Registration Statement") pursuant to the Securities Act of 1933, as amended (the "Securities Act"), and (ii) a second Registration Statement on Form S-1 filed pursuant to Rule 462(b) promulgated under the Securities Act (the "462(b) Registration Statement," and together with the Initial Registration Statement, the "Registration Statement"). This opinion letter is furnished to you in connection with your filing of the 462(b) Registration Statement, relating to the registration of the offering by Monte Rosa Therapeutics, Inc., a Delaware corporation (the "Company") of up to 2,242,500 shares (the "Shares") of the Company's Common Stock, \$0.0001 par value per share, including Shares purchasable by the underwriters upon their exercise of an over-allotment option granted to the underwriters by the Company. The Shares are being sold to the several underwriters named in, and pursuant to, an underwriting agreement among the Company and such underwriters (the "Underwriting Agreement").

We have reviewed such documents and made such examination of law as we have deemed appropriate to give the opinions set forth below. We have relied, without independent verification, on certificates of public officials and, as to matters of fact material to the opinions set forth below, on certificates of officers of the Company.

The opinion set forth below is limited to the Delaware General Corporation Law.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and, upon issuance and delivery against payment therefor in accordance with the terms of the Underwriting Agreement, the Shares will be validly issued, fully paid and non-assessable.

We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the 462(b) Registration Statement and to the references to our firm under the caption "Legal Matters" in the Initial Registration Statement. In giving our consent, we do not 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 thereunder.

Very truly yours,
/s/ Goodwin Procter LLP
GOODWIN PROCTER LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-1 MEF of our report dated April 19, 2021 (June 21, 2021, as to the effects of the reverse stock split as described in Note 15) relating to the financial statements of Monte Rosa Therapeutics, Inc. included in Registration Statement No. 333-256773 on Form S-1 of Monte Rosa Therapeutics, Inc. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ Deloitte & Touche LLP

Boston, Massachusetts June 23, 2021