As filed with the U.S. Securities and Exchange Commission on September 26, 2018

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-1
REGISTRATION STATEMENT

UNDER
THE SECURITIES ACT OF 1933

SUTRO BIOPHARMA, INC.

(Exact name of registrant as specified in its charter)

Delaware	2836	47-0926186
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

310 Utah Avenue, Suite 150
South San Francisco, CA 94080
(650) 392-8412
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

William J. Newell
Chief Executive Officer
Sutro Biopharma, Inc.
310 Utah Avenue, Suite 150
South San Francisco, CA 94080
(650) 392-8412
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Effie Toshav, Esq.	**David Peinsipp**
Robert A. Freedman, Esq.	**Charles S. Kim, Esq.**
Amanda L. Rose, Esq.	**Andrew S. Williamson, Esq.**
Fenwick & West LLP	**Kristin VanderPas, Esq.**
555 California Street	**Cooley LLP**
San Francisco, CA 94104	**101 California Street, 5th Floor**
(415) 875-2300	**San Francisco, CA 94111**
	(415) 693-2000

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, 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. ☒ **333-227103**

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. ☐

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, anon-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 Securities Exchange Act. (Check one):

Large accelerated filer ☐		Accelerated filer	☐
Non-accelerated filer ☒		Smaller reporting company	☐
		Emerging growth company	☒

If an emerging growth company, indicate by checkmark if the registrant has not elected to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act ☐

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered(1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee(2)
Common stock, $0.001 par value per share	767,050	$15.00	$11,505,750	$1,432

(1) Represents 767,050 additional number of shares being registered, including 100,050 additional shares that the underwriters have the option to purchase, if any. Does not include the securities that the Registrant previously registered on the Registration Statement on Form S-1, as amended (File No. 333-227103).

(2) The registration fee is calculated in accordance with Rule 457(a) under the Securities Act of 1933, as amended, or the Securities Act, based on the proposed maximum aggregate offering price. The Registrant previously registered securities with an aggregate offering price not to exceed $92,000,000 on a Registration Statement on Form S-1, as amended (File No. 333-227103), which was declared effective by the Securities and Exchange Commission on September 26, 2018. In accordance with Rule 462(b) under the Securities Act, an additional amount of shares having a proposed maximum aggregate offering price of $11,505,750 are hereby registered, which includes the additional shares that the underwriters have the option to purchase.

This Registration Statement shall become effective upon filing in accordance with Rule 462(b) under the Securities Act.

EXPLANATORY NOTE AND INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

Pursuant to Rule 462(b) under the Securities Act of 1933, as amended ("***Securities Act***"), Sutro Biopharma, Inc. ("***Registrant***") is filing this Registration Statement on Form S-1 (this "***Registration Statement***") with the Securities and Exchange Commission ("***Commission***"). This Registration Statement relates to the public offering of securities contemplated by the Registration Statement on Form S-1, as amended (File No. 333-227103) (the "***Prior Registration Statement***"), which the Registrant originally filed with the Commission on August 29, 2018, and subsequently amended on September 17, 2018, and which the Commission declared effective on September 26, 2018.

The Registrant is filing this Registration Statement for the sole purpose of increasing the aggregate number of shares of common stock offered by the Registrant by 767,050 shares, 100,050 of which are subject to purchase upon exercise of the underwriters' option to purchase additional shares of the Registrant's common stock. The additional shares that are being registered for sale are in an amount and at a price that together represent no more than 20% of the maximum aggregate offering price set forth in the Calculation of Registration Fee table contained in the Prior Registration Statement. The information set forth in the Prior Registration Statement and all exhibits to the Prior Registration Statement are incorporated by reference into this Registration Statement.

The required opinions and consents are listed on the Exhibit Index attached hereto and filed herewith.

EXHIBIT INDEX

Exhibit Number	Description
5.1*	Opinion of Fenwick & West LLP
23.1*	Consent of Independent Registered Public Accounting Firm
23.2*	Consent of Fenwick & West LLP (included in Exhibit 5.1)
24.1	Power of Attorney (incorporated by reference to Exhibit 24.1 to the Registration Statement on FormS-1 (Registration No. 333-227103)).

* 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 South San Francisco, State of California, on the 26th day of September, 2018.

SUTRO BIOPHARMA, INC.

By: /s/ William J. Newell
William J. Newell
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/ William J. Newell William J. Newell	Chief Executive Officer and Director (Principal Executive Officer)	September 26, 2018
/s/ Edward Albini Edward Albini	Chief Financial Officer (Principal Accounting and Financial Officer)	September 26, 2018
* Michael Dybbs, Ph.D.	Director	September 26, 2018
* John G. Freund, M.D.	Director	September 26, 2018
* Daniel Janney	Director	September 26, 2018
* V. Bryan Lawlis, Ph.D.	Director	September 26, 2018
* Joseph M. Lobacki	Director	September 26, 2018
* Daniel H. Petree	Director	September 26, 2018
* Michael Ross, Ph.D.	Director	September 26, 2018

* By Attorney-in-Fact

/s/ Edward Albini
Edward Albini

FENWICK & WEST LLP

555 CALIFORNIA STREET, 12TH FLOOR SAN FRANCISCO, CA 94104

TEL 415.875.2300 FAX 415.281.1350 WWW.FENWICK.COM

September 26, 2018

Sutro Biopharma, Inc.
310 Utah Ave, Suite 150
South San Francisco, CA 94080

Ladies and Gentlemen:

At your request, we have examined the Registration Statement on Form S-1 (the "***Registration Statement***") filed by Sutro Biopharma, Inc., a Delaware corporation (the "***Company***"), with the Securities and Exchange Commission (the "***Commission***") on September 26, 2018 pursuant to Rule 462(b) of the Securities Act of 1933, as amended (the "***Securities Act***"), in connection with the registration of 767,050 shares of the Company's Common Stock (the "***Stock***").

In connection with our opinion expressed below we have examined originals or copies of the underwriting agreement pursuant to which the Stock will be sold to the underwriters, the Registration Statement, the prospectus prepared in connection with the Registration Statement (the "***Prospectus***"), the Company's certificate of incorporation, as amended (the "***Certificate***"), and the Company's bylaws, as amended (the "***Bylaws***"), certain minutes and consents of the Company's board of directors (the "***Board***") or a committee or committees thereof and the Company's stockholders relating to the Registration Statement, the Certificate and the Bylaws, and such other agreements, documents, certificates and statements of the Company, its transfer agent and public or government officials, as we have deemed advisable, and have examined such questions of law as we have considered necessary. In giving our opinion, we have also relied upon a good standing certificate regarding the Company issued by the Delaware Secretary of State and a management certificate addressed to us and dated of even date herewith executed by the Company containing certain factual representations by the Company.

In our examination of documents for purposes of this opinion, we have assumed, and express no opinion as to, the genuineness of all signatures on original documents, the authenticity and completeness of all documents submitted to us as originals, the conformity to originals and completeness of all documents submitted to us as copies, the legal capacity of all persons or entities executing the same (other than the Company), the lack of any undisclosed termination, modification, waiver or amendment to any document reviewed by us.

We render this opinion only with respect to, and express no opinion herein concerning the application or effect of the laws of any jurisdiction other than, the existing Delaware General Corporation Law.

In connection with our opinion expressed below, we have assumed that, at or prior to the time of the delivery of any shares of Stock, the Registration Statement will have been declared effective under the Securities Act that the registration will apply to the offer and sale of such shares of Stock and will not have been modified or rescinded and that there will not have occurred any change in law affecting the validity of the issuance of such shares of Stock.

Based upon the foregoing, we are of the opinion that the up to 767,050 shares of Stock that may be issued and sold by the Company, when issued, sold and delivered in the manner and for the consideration stated in the Registration Statement and the Prospectus and in accordance with the resolutions adopted by the Board and to be adopted by the Pricing Committee of the Board, will be validly issued, fully paid and nonassessable.

We consent to the use of this opinion as an exhibit to the Registration Statement and further consent to all references to us, if any, in the Registration Statement, the Prospectus constituting a part thereof and any amendments thereto.

This opinion is intended solely for use in connection with issuance and sale of shares of Stock subject to the Registration Statement and is not to be relied upon for any other purpose. This opinion is rendered as of the date first written above and is based solely on our understanding of facts in existence as of such date after the aforementioned examination. In rendering the opinions above, we are opining only as to the specific legal issues expressly set forth therein, and no opinion shall be inferred as to any other matter or matters. We assume no obligation to advise you of any fact, circumstance, event or change in the law or the facts that may hereafter be brought to our attention whether or not such occurrence would affect or modify any of the opinions expressed herein.

Very truly yours,

/s/ Fenwick & West LLP

FENWICK & WEST LLP

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement onForm S-1 filed pursuant to Rule 462(b) of the Securities Act of 1933 of the reference to our firm under the caption “Experts” and to the incorporation by reference of our report dated June 1, 2018 (except for the third paragraph of Note 1 and for Note 14, as to which the date is September 17, 2018), with respect to the financial statements of Sutro Biopharma, Inc. included in Amendment No. 1 to the Registration Statement (Form S-1 No. 333-227103) and related Prospectus of Sutro Biopharma, Inc. for the registration of its common stock.

/s/ Ernst & Young LLP

Redwood City, California
September 26, 2018