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

SCHEDULE 13G

Under the Securities Exchange Act of 1934

| | | lyst Biosciences, Inc. | |
|----------------------------|--|---|--|
| | (Name of Is | suer) | |
| | Common Stock | | |
| | (Title of Class of | Securities) | |
| | | 8D208 | |
| | | mber 27, 2021 | |
| | (Date of Event Which Require | | |
| | k the appropriate box to designate the r dule is filed: | ule pursuant to which this | |
| | [X] Rule 13d-1(b) | | |
| | [_] Rule 13d-1(c) | | |
| | [_] Rule 13d-1(d) | | |
| ini and | remainder of this cover page shall be fitial filing on this form with respect to for any subsequent amendment containing disclosures provided in a prior cover p | the subject class of securities, information which would alter | |
| Act of t see ==== | red to be "filed" for the purpose of Sect of 1934 ("Act") or otherwise subject to he Act but shall be subject to all other the Notes). | the liabilities of that section provisions of the Act (however, | |
| CUSI | P NO. 14888D208 13G | Page 2 of 8 Page | |
| (1) | NAMES OF REPORTING PERSONS. I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (entities only). | | |
| | Renaissance Technologies LLC 26-6 | 385758 | |
| (2) | CHECK THE APPROPRIATE BOX IF A MEMBER (a) [_] (b) [_] | F A GROUP (SEE INSTRUCTIONS): | |
| (3) | SEC USE ONLY | | |
| (4) | CITIZENSHIP OR PLACE OF ORGANIZATION | | |
| | Delaware | | |
| | | (5) SOLE VOTING POWER | |
| | NUMBER OF SHARES BENEFICIALLY OWNED | 1,347,877 | |
| | BY EACH REPORTING PERSON WITH: | (6) SHARED VOTING POWER | |
| | | 0 | |
| | | | |
| | | (7) SOLE DISPOSITIVE POWER | |

| | | (8) SHARED DISPOSITIVE POWER |
|---|-------------------------|--|
| | | 0 |
| (9) AGGREGATE AMOUNT BENEF | FICIALLY OWNED BY E | ACH REPORTING PERSON |
| | 1,771,908 | |
| (10) CHECK BOX IF THE AGGRE (SEE INSTRUCTIONS) | EGATE AMOUNT IN ROW | (9) EXCLUDES CERTAIN SHARES |
| (11) PERCENT OF CLASS REP | RESENTED BY AMOUNT | IN ROW (9) |
| , | 5.64 % | . , |
| (12) TYPE OF REPORTING PERS | SON (SEE INSTRUCTION | vs) |
| | Page 2 of 8 pa | ages ==================================== |
| | Page 3 of 8 page | ages |
| CUSIP NO. 14888D208 | 13G | Page 3 of 8 Pa |
| (1) NAMES OF REPORTING PERIOR I.R.S. IDENTIFICATION | | SONS (ENTITIES ONLY). |
| RENAISSANCE TECHNOLOG | IES HOLDINGS CORPORA | ATION 13-3127734 |
| (2) CHECK THE APPROPRIATE (a) [_] (b) [_] | BOX IF A MEMBER OF | A GROUP (SEE INSTRUCTIONS) |
| | | |
| Delaware NUMBER OF SHARES | | (5) SOLE VOTING POWER 1,347,877 |
| BENEFICIALLY OWNED BY EACH REPORTING | | |
| PERSON WITH: | | (6) SHARED VOTING POWER |
| | | 0 |
| | | (7) SOLE DISPOSITIVE POWER |
| | | 1,771,908 |
| | | (8) SHARED DISPOSITIVE POWER |
| | | Θ |
| | | |
| (9) AGGREGATE AMOUNT BENEF | FICIALLY OWNED BY E | ACH REPORTING PERSON |
| | 1,771,908 | |
| (10) CHECK BOX IF THE AGGRE (SEE INSTRUCTIONS) | EGATE AMOUNT IN ROW | (9) EXCLUDES CERTAIN SHARES |
| (11) PERCENT OF CLASS REP | | IN ROW (9) |
| () | 5.64 % | (-) |
| (12) TYPE OF REPORTING PER | | NS) |
| (12) TYPE OF REPORTING PERS | SON (SEE INSTRUCTION HC | NS) |

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Item 1.

(a) Name of Issuer

Catalyst Biosciences, Inc.

(b) Address of Issuer's Principal Executive Offices.

611 Gateway Blvd., Suite 710, South San Francisco, California 94080

Item 2.

(a) Name of Person Filing:

This Schedule 13G is being filed by Renaissance Technologies LLC ("RTC") and Renaissance Technologies Holdings Corporation ("RTHC").

(b) Address of Principal Business Office or, if none, Residence.

The principal business address of the reporting persons is:

800 Third Avenue New York, New York 10022

(c) Citizenship.

RTC is a Delaware limited liability company, and RTHC is a Delaware corporation.

(d) Title of Class of Securities.

Common Stock

(e) CUSIP Number.

14888D208

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Item 3. If this statement is filed pursuant to Rule 13d-1(b) or 13-d-2(b) or (c), check whether the person filing is a:

- (a) [_] Broker or dealer registered under section 15 of the Act.
- Bank as defined in section 3(a)(6) of the Act.
- (b) [_] Insurance Company as defined in section 3(a)(19) of the Act.
- Investment Company registered under section 8 of the Investment (d) [_]
- Investment Adviser in accordance with Sec.240.13d-1(b)(1)(ii)(E). (e) [x]
- (f) [_] Employee Benefit Plan or Endowment Fund in accordance with Sec. 240.13d-1(b)(1)(ii)(F).
- Parent holding company, in accordance with Sec.240.13d-1(b)(1)(ii)(G). (g) [₋
- A savings associations as defined in Section 3(b) of the Federal (h) [_] Deposit Insurance Act.
- A church plan that is excluded from the definition of an investment (i) [_] company under section 3(c)(14) of the Investment Company Act of 1940.
- (j) [] Group, in accordance with Sec.240.13d-1(b)(1)(ii)(J).

Item 4. Ownership.

(a) Amount beneficially owned.

RTC: 1,771,908 shares

shares, comprising the shares beneficially owned RTHC: 1,771,908 by RTHC, because of RTHC's majority ownership of RTC.

(b) Percent of Class.

RTC: 5.64 % RTHC: 5.64 %

- (c) Number of shares as to which the person has:
 - (i) sole power to vote or to direct the vote:

RTC: 1,347,877 RTHC: 1,347,877

- (ii) Shared power to vote or to direct the vote:

(iii) sole power to dispose or to direct the disposition of:

RTC: 1,771,908 RTHC: 1,771,908

(iv) Shared power to dispose or to direct the disposition of:

RTC: RTHC: 0

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Item 5. Ownership of Five Percent or Less of a Class.

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following: [_]

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

Certain funds and accounts managed by RTC have the right to receive dividends and proceeds from the sale of the securities which are the subject of this report.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company.

Not applicable

Item 8. Identification and Classification of Members of the Group.

Not applicable

Item 9. Notice of Dissolution of a Group.

Not applicable

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Item 10. Certification

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

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.

Date: February 11, 2022

Renaissance Technologies LLC

By: /s/ James S. Rowen Chief Operating Officer By: /s/ James S. Rowen Vice President

Attention: Intentional misstatements or omissions of fact constitute Federal criminal violations (See 18 U.S.C. 1001).

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EXHIBIT 99.1

AGREEMENT REGARDING JOINT FILING

UNDER RULE 13D-1(K) OF THE EXCHANGE ACT

In accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended, each of the undersigned agrees to the filing on behalf of each of a Statement on Schedule 13G, and all amendments thereto, with respect to the shares of Common Stock of Catalyst Biosciences, Inc.

Date: February 11, 2022

Renaissance Technologies LLC

By: /s/ James S. Rowen Chief Operating Officer

Renaissance Technologies Holdings Corporation

By: /s/ James S. Rowen Vice President

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