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

SCHEDULE 13G^{* /}
(Rule 13d-102)

Genocea Biosciences, Inc.

(Name of Issuer)

Common Stock, \$0.001 par value per share
(Title of Class of Securities)

372427401

(CUSIP Number)

July 22, 2020

Date of Event Which Requires Filing of the Statement

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)
 Rule 13d-1(c)
 Rule 13d-1(d)
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1.	NAME OF REPORTING PERSON Citadel Advisors LLC	
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3.	SEC USE ONLY	
4.	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	SOLE VOTING POWER 0
	6.	SHARED VOTING POWER 3,391,576 shares
	7.	SOLE DISPOSITIVE POWER 0
	8.	SHARED DISPOSITIVE POWER See Row 6 above
9.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON See Row 6 above	
10.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 6.4%¹	
12.	TYPE OF REPORTING PERSON IA; OO; HC	

¹ The percentages reported in this Schedule 13G are based upon approximately 53,036,085 shares of common stock outstanding comprised of (i) 29,964,496 shares of common stock outstanding as of July 21, 2020 (according to the issuer's Form 10-Q as filed with the Securities and Exchange Commission on July 23, 2020), (ii) 21,390,904 shares issued pursuant to a securities purchase agreement, dated as of July 22, 2020 (according to the issuer's Form 8-K as filed with the Securities and Exchange Commission on July 22, 2020), and (iii) approximately 1,680,685 shares issuable upon exercise of certain warrants held by affiliates of the Reporting Persons. Except as described in the preceding sentence, all share numbers for the holdings of the reporting persons reported in this Schedule 13G are as of the opening of the market on July 31, 2020.

1.	NAME OF REPORTING PERSON Citadel Advisors Holdings LP		
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>		
3.	SEC USE ONLY		
4.	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	SOLE VOTING POWER 0	
	6.	SHARED VOTING POWER 3,391,576 shares	
	7.	SOLE DISPOSITIVE POWER 0	
	8.	SHARED DISPOSITIVE POWER See Row 6 above	
9.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON See Row 6 above		
10.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>		
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 6.4%		
12.	TYPE OF REPORTING PERSON PN; HC		

1.	NAME OF REPORTING PERSON Citadel GP LLC		
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>		
3.	SEC USE ONLY		
4.	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	SOLE VOTING POWER 0	
	6.	SHARED VOTING POWER 3,391,576 shares	
	7.	SOLE DISPOSITIVE POWER 0	
	8.	SHARED DISPOSITIVE POWER See Row 6 above.	
9.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON See Row 6 above.		
10.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>		
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 6.4%		
12.	TYPE OF REPORTING PERSON OO; HC		

1.	NAME OF REPORTING PERSON Citadel Securities LLC		
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>		
3.	SEC USE ONLY		
4.	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	SOLE VOTING POWER 0	
	6.	SHARED VOTING POWER 33,703 shares	
	7.	SOLE DISPOSITIVE POWER 0	
	8.	SHARED DISPOSITIVE POWER See Row 6 above.	
9.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON See Row 6 above.		
10.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>		
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 0.1%		
12.	TYPE OF REPORTING PERSON BD, OO		

1.	NAME OF REPORTING PERSON CALC IV LP		
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>		
3.	SEC USE ONLY		
4.	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	SOLE VOTING POWER 0	
	6.	SHARED VOTING POWER 40,810 shares	
	7.	SOLE DISPOSITIVE POWER 0	
	8.	SHARED DISPOSITIVE POWER See Row 6 above.	
9.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON See Row 6 above.		
10.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>		
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 0.1%		
12.	TYPE OF REPORTING PERSON PN; HC		

1.	NAME OF REPORTING PERSON Citadel Securities GP LLC		
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>		
3.	SEC USE ONLY		
4.	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware		
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	SOLE VOTING POWER 0	
	6.	SHARED VOTING POWER 40,810 shares	
	7.	SOLE DISPOSITIVE POWER 0	
	8.	SHARED DISPOSITIVE POWER See Row 6 above.	
9.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON See Row 6 above.		
10.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>		
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 0.1%		
12.	TYPE OF REPORTING PERSON OO; HC		

1.	NAME OF REPORTING PERSON Kenneth Griffin	
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3.	SEC USE ONLY	
4.	CITIZENSHIP OR PLACE OF ORGANIZATION U.S. Citizen	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	SOLE VOTING POWER 0
	6.	SHARED VOTING POWER 3,432,386 shares
	7.	SOLE DISPOSITIVE POWER 0
	8.	SHARED DISPOSITIVE POWER See Row 6 above
9.	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON See Row 6 above	
10.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/>	
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 6.5%	
12.	TYPE OF REPORTING PERSON IN; HC	

- Item 1(a)** Name of Issuer
Genocea Biosciences, Inc.
- Item 1(b)** Address of Issuer's Principal Executive Offices
100 Acorn Park Drive, Cambridge, Massachusetts 02140
- Item 2(a)** Name of Person Filing
This Schedule 13G is being jointly filed by Citadel Advisors LLC ("Citadel Advisors"), Citadel Advisors Holdings LP ("CAH"), Citadel GP LLC ("CGP"), Citadel Securities LLC ("Citadel Securities"), CALC IV LP ("CALC4"), Citadel Securities GP LLC ("CSGP") and Mr. Kenneth Griffin (collectively with Citadel Advisors, CAH, CGP, Citadel Securities, CALC4 and CSGP, the "Reporting Persons") with respect to shares of common stock (and options and warrants to purchase common stock) of the above-named issuer owned by Citadel Multi-Strategy Equities Master Fund Ltd., a Cayman Islands limited company ("CM"), Citadel Quantitative Strategies Master Fund Ltd., a Cayman Islands limited company ("CQ"), Citadel Securities and CRBU Holdings LLC, a Delaware limited liability company ("CRBH").
- Citadel Advisors is the portfolio manager for CM and CQ. CAH is the sole member of Citadel Advisors. CGP is the general partner of CAH. CALC4 is the non-member manager of Citadel Securities and CRBH. CSGP is the general partner of CALC4. Mr. Griffin is the President and Chief Executive Officer of CGP, and owns a controlling interest in CGP and CSGP.
- The filing of this statement shall not be construed as an admission that any of the Reporting Persons is the beneficial owner of any securities covered by the statement other than the securities actually owned by such person (if any).
- Item 2(b)** Address of Principal Business Office
The address of the principal business office of each of the Reporting Persons is 131 S. Dearborn Street, 32nd Floor, Chicago, Illinois 60603.
- Item 2(c)** Citizenship
Each of Citadel Advisors, CGP, Citadel Securities and CSGP is organized as a limited liability company under the laws of the State of Delaware. Each of CALC4 and CAH is organized as a limited partnership under the laws of the State of Delaware. Mr. Griffin is a U.S. citizen.
- Item 2(d)** Title of Class of Securities
Common stock, par value \$0.001 per share
- Item 2(e)** CUSIP Number
372427401
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Item 3 **If this statement is filed pursuant to Rules 13d-1(b), or 13d-2(b) or (c), check whether the person filing is a:**

- (a) Broker or dealer registered under Section 15 of the Exchange Act;
- (b) Bank as defined in Section 3(a)(6) of the Exchange Act;
- (c) Insurance company as defined in Section 3(a)(19) of the Exchange Act;
- (d) Investment company registered under Section 8 of the Investment Company Act;
- (e) An investment adviser in accordance with Rule 13d-1(b)(1)(ii)(E);
- (f) An employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F);
- (g) A parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G);
- (h) A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act;
- (i) A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act;
- (j) A non-U.S. institution in accordance with Rule 13d-1(b)(1)(ii)(J);
- (k) Group, in accordance with Rule 13d-1(b)(1)(ii)(K).

If filing as a non-U.S. institution in accordance with Rule 13d-1(b)(1)(ii)(J), please specify the type of institution: _____.

Item 4 **Ownership**

- A. Citadel Advisors LLC, Citadel Advisors Holdings LP and Citadel GP LLC
- (a) Each of Citadel Advisors LLC, Citadel Advisors Holdings LP and Citadel GP LLC may be deemed to beneficially own 3,391,576 shares of common stock.
 - (b) The number of shares that each of Citadel Advisors LLC, Citadel Advisors Holdings LP and Citadel GP LLC may be deemed to beneficially own constitutes approximately 6.4% of the common stock outstanding.
 - (c) Number of shares as to which such person has:
 - (i) sole power to vote or to direct the vote: 0
 - (ii) shared power to vote or to direct the vote: 3,391,576
 - (iii) sole power to dispose or to direct the disposition of: 0
 - (iv) shared power to dispose or to direct the disposition of: 3,391,576
- B. Citadel Securities LLC
- (a) Citadel Securities LLC may be deemed to beneficially own 33,703 shares of common stock.
 - (b) The number of shares that Citadel Securities LLC may be deemed to beneficially own constitutes approximately 0.1% of the common stock outstanding.
 - (c) Number of shares as to which such person has:
 - (i) sole power to vote or to direct the vote: 0
 - (ii) shared power to vote or to direct the vote: 33,703
 - (iii) sole power to dispose or to direct the disposition of: 0
 - (iv) shared power to dispose or to direct the disposition of: 33,703
- C. CALC IV LP and Citadel Securities GP LLC
- (a) Each of CALC IV LP and Citadel Securities GP LLC may be deemed to beneficially own 40,810 shares of common stock.
 - (b) The number of shares that each of CALC IV LP and Citadel Securities GP LLC may be deemed to beneficially own constitutes approximately 0.1% of the common stock outstanding.
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- (c) Number of shares as to which such person has:
- (i) sole power to vote or to direct the vote: 0
 - (ii) shared power to vote or to direct the vote: 40,810
 - (iii) sole power to dispose or to direct the disposition of: 0
 - (iv) shared power to dispose or to direct the disposition of: 40,810

D. Kenneth Griffin

- (a) Mr. Griffin may be deemed to beneficially own 3,432,386 shares of common stock.
- (b) The number of shares that Mr. Griffin may be deemed to beneficially own constitutes approximately 6.5% of the common stock outstanding.
- (c) Number of shares as to which such person has:
 - (i) sole power to vote or to direct the vote: 0
 - (ii) shared power to vote or to direct the vote: 3,432,386
 - (iii) sole power to dispose or to direct the disposition of: 0
 - (iv) shared power to dispose or to direct the disposition of: 3,432,386

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 5 percent of the class of securities, check the following .

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

Not Applicable

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

See Item 2 above

Item 8 Identification and Classification of Members of the Group

Not Applicable

Item 9 Notice of Dissolution of Group

Not Applicable

Item 10 Certification

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were 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.

After reasonable inquiry and to the best of its knowledge and belief, the undersigned certify that the information set forth in this statement is true, complete and correct.

Dated this 31st day of July, 2020.

CITADEL SECURITIES LLC

By: /s/ Guy Miller
Guy Miller, Authorized Signatory

CALC IV LP

By: /s/ Guy Miller
Guy Miller, Authorized Signatory

CITADEL SECURITIES GP LLC

By: /s/ Guy Miller
Guy Miller, Authorized Signatory

CITADEL ADVISORS LLC

By: /s/ Noah Goldberg
Noah Goldberg, Authorized Signatory

CITADEL ADVISORS HOLDINGS LP

By: /s/ Noah Goldberg
Noah Goldberg, Authorized Signatory

CITADEL GP LLC

By: /s/ Noah Goldberg
Noah Goldberg, Authorized Signatory

KENNETH GRIFFIN

By: /s/ Noah Goldberg
Noah Goldberg, attorney-in-fact*

* Noah Goldberg is signing on behalf of Kenneth Griffin as attorney-in-fact pursuant to a power of attorney previously filed with the Securities and Exchange Commission, and hereby incorporated by reference herein. The power of attorney was filed as an attachment to a filing by Citadel Advisors LLC on Schedule 13G for Zentalis Pharmaceuticals Inc. on April 9, 2020.

JOINT FILING AGREEMENT

The undersigned hereby agree that the Statement on Schedule 13G filed herewith (and any amendments thereto), relating to the common stock of Genoea Biosciences, Inc., a Delaware corporation, is being filed jointly with the Securities and Exchange Commission pursuant to Rule 13d-1(c) under the Securities Exchange Act of 1934, as amended, on behalf of each of the undersigned.

This Agreement may be executed in counterparts and each of such counterparts taken together shall constitute one and the same instrument.

Dated this 31st day of July, 2020.

CITADEL SECURITIES LLC

By: /s/ Guy Miller
Guy Miller, Authorized Signatory

CALC IV LP

By: /s/ Guy Miller
Guy Miller, Authorized Signatory

CITADEL SECURITIES GP LLC

By: /s/ Guy Miller
Guy Miller, Authorized Signatory

CITADEL ADVISORS LLC

By: /s/ Noah Goldberg
Noah Goldberg, Authorized Signatory

CITADEL ADVISORS HOLDINGS LP

By: /s/ Noah Goldberg
Noah Goldberg, Authorized Signatory

CITADEL GP LLC

By: /s/ Noah Goldberg
Noah Goldberg, Authorized Signatory

KENNETH GRIFFIN

By: /s/ Noah Goldberg
Noah Goldberg, attorney-in-fact*

* Noah Goldberg is signing on behalf of Kenneth Griffin as attorney-in-fact pursuant to a power of attorney previously filed with the Securities and Exchange Commission, and hereby incorporated by reference herein. The power of attorney was filed as an attachment to a filing by Citadel Advisors LLC on Schedule 13G for Zentalis Pharmaceuticals Inc. on April 9, 2020.
